ONLINE EDUCATION IN INDIA: 2021

A study by KPMG in India and Google

May 2017

Highlights

India's online education market is set to grow to **USD 1.96 billion** and around **9.6 million users** by 2021 from **USD 247 million** and around **1.6 million users in 2016**

Industry overview:

- **Reskilling and online certifications** is the largest category today at **USD 93 million**
- **Primary & secondary supplemental education** will be the largest category by 2021 at **USD 773 million**, growing at a CAGR of **60%**
- **Test preparation** will be the fastest growing category in 2021, growing at a CAGR of **64%**

India's online students:

- **Perceive convenience, flexibility with commencement dates** and **variety of study material** are key motivational factors to adopt online channel
- Cite **peers** and **internet search** as the top two sources of brand awareness
- **Indicate quality of course content** as the top reason for selecting a specific brand
- Prefer **laptops** over mobile phones for accessing the course content

Executive Summary - Online education market in India

The online education market in India currently stands at USD 247 million and is estimated to witness an 8x growth over the next 5 years to reach the USD 1.96 billion mark in 2021. This growth will be backed by a phenomenal rise in the paid user base for online education in India, which is expected to grow from the current base of 1.57 million users to 9.5 million users in 2021 at a CAGR of 44%.
The growth of online education in India will be driven by a combination of demand, supply and macroeconomic drivers as indicated below.

There are five major categories of education with potential for significant online adoption. Reskilling and online certification courses currently accounts for a significant part of the online education market in India with a share of 38%. This is largely driven by a healthy adoption rate amongst the significant population of IT professionals in India.
However, with an estimated ~280 million students expected to be enrolled in schools by 2021 and increasing adoption amongst this target audience, online primary and secondary supplemental education is expected to be the dominant category of courses with a 39% market share in 2021. At the same time, online test preparation is expected to be the fastest growing category of online education, estimated to grow at an impressive CAGR of 64% in the next five years

Key categories: Market size and key characteristics

Market size (in USD million)

	2016	CAGR	2021P	
Primary and secondary supplemental education *Supplement to school learning for students enrolled in primary and secondary classes in school*	73	60%	773	• Current demand driven by consumer behavior shift towards deeper understanding of topics in place of only clearing exams • Growth will be driven by large offline student base and increased internet penetration in tier 2 cities and beyond
Test preparation *Online programmes aimed at coaching students in preparation for competitive examinations*	43	64%	515	• High demand for engineering and government service courses • Higher adoption amongst target audience and increase in the number of competitive exam aspirants will drive growth in the future
Reskilling and online certifications *Courses designed to assist users in skill enhancement, which may result in certifications*	93	38%	463	• Technical certifications are the most popular kind of courses • Category to be driven by increasing re-skilling and up-skilling needs of working population in India
Higher education *Provide an alternative to traditional higher education courses*	33	41%	184	• Online MBA is the most popular course in this category • Anticipated to grow backed by robust governance framework and large distance learning user-base
Language and casual learning *Learning of non-academic subjects such as spoken English and playing guitar*	5	42%	29	• English language learners comprise majority of the user base • Category to witness impressive rise in user base but proportion of paid users would still remain low

Executive Summary - The future of Online Education

Gamification concepts to enhance user engagement

- Gamification will gain application in the form of simulation of concepts, incentive based learning, level advancement badges and the likes
- This will drive user engagement and increase knowledge acquisition

Players in this space to adopt a hybrid channel approach

- Collaboration of online and offline channels to provide ubiquitous content and learning
    - Online players to establish offline touch-points for students
    - Offline players to broaden their online component to provide value added services and enhance overall learning experience

Online education will evolve the concept of continuous learning

- Adoption of online education to be driven across age groups by three kinds of needs:
    - Employability – Need to stay relevant in the job market
    - Social learning – Casual learning and social skill development
    - Entrepreneurship

Business model evolution in line with changing customer requirements

- Co-developed content by online players and industry to enhance perceived value of online education
- Peer to peer learning among students to gain pace
- Value added services such as internships and live projects along with regular courses, to provide hands-on experience to students

Technological innovations in the supply and demand ecosystem

- Big data and Artificial Intelligence to assist in design of customized content
- Consumption of content will evolve through use of technologies like wearable devices and virtual labs
- Data storage on cloud to enable anytime, any-device access

Table of contents

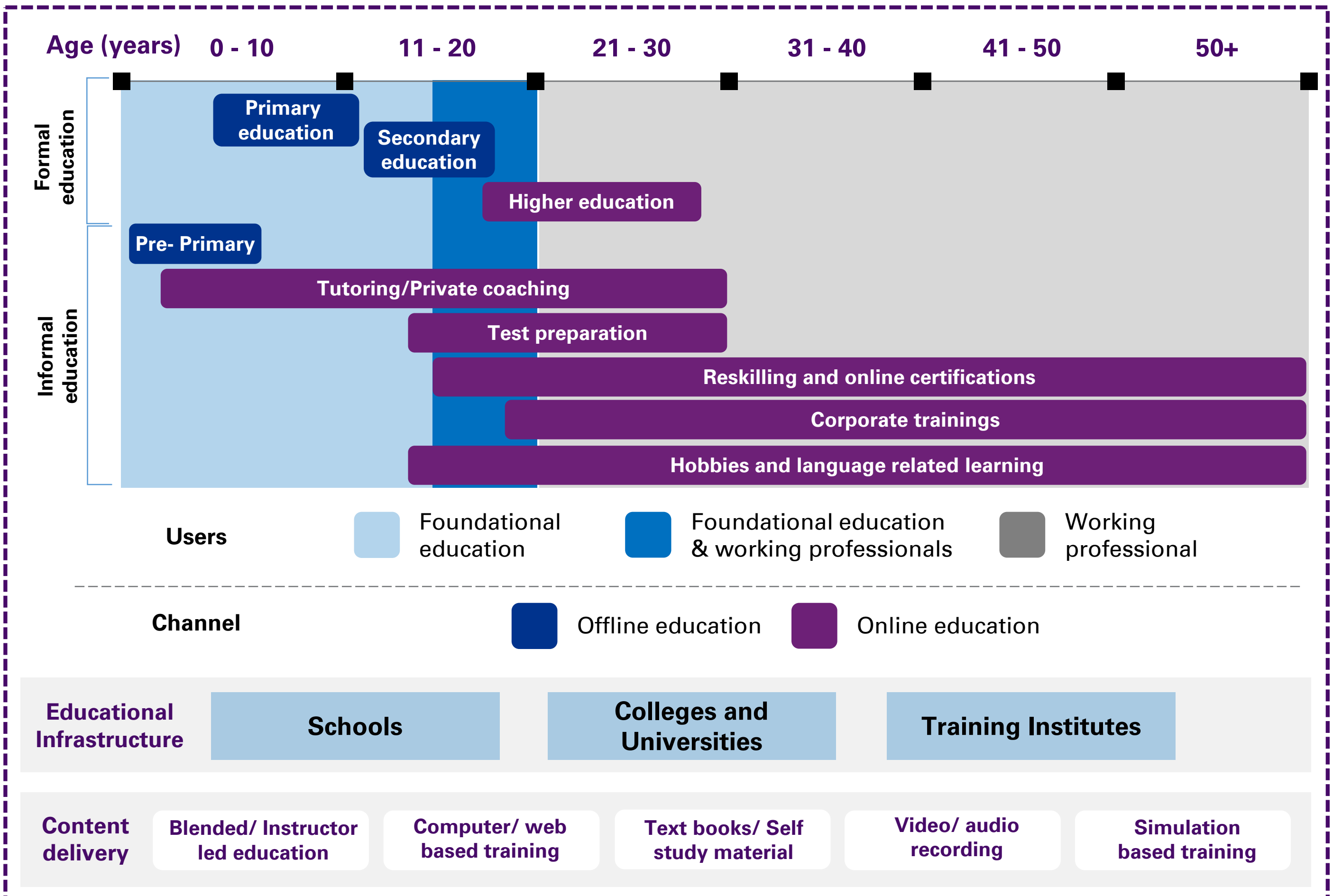
Evolution of online education in India : An introduction

Education landscape in India

India has a multi-layered formal education system with ~ 260 million students[1] enrolled in more than 1.5 million schools and ~ 39,000 colleges catering to 27.5 million under graduate and four million post graduate[2] students. Formal education includes primary and secondary schools, graduation, post-graduation and diploma courses. Schools are governed by state and central bodies, viz. CBSE, ICSE, state and international boards. India has one of the largest higher education systems in the world, primarily dominated by private sectors. Higher education in India though governed by UGC has a 3- tier structure comprising the university, college and course. Different regulatory bodies such as Medical Council of India (MCI), All India Council for Technical Education (AICTE) and the Bar Council India (BCI), among others, manage different professional courses.

Informal education includes pre-primary, coaching classes, vocational education and multi-media/technology based educational courses aiding as a supplement or substitute to formal education. India's informal education market is one of the largest in the world. Pre-primary market has low entry barriers and has witnessed large number of players in the last few years. Presence of a large working population and increasing requirement of skilled workers, is instrumental in the prominent growth of vocational education in India. Test preparation contributes to a significant share of informal education in India.

Overview of education system in India



Source: KPMG in India's research & analysis 2017

The online channel for education in India includes primary and secondary education to hobbies and language learning across formal and informal forms. Online players have developed B2C, B2B and C2C solutions in line with the customer's requirements.

For the purpose of this report, online education is defined as: *'Learning modules which can be accessed by individuals through internet enabled devices'*[3] and is restricted to consumer paid services by users in India.

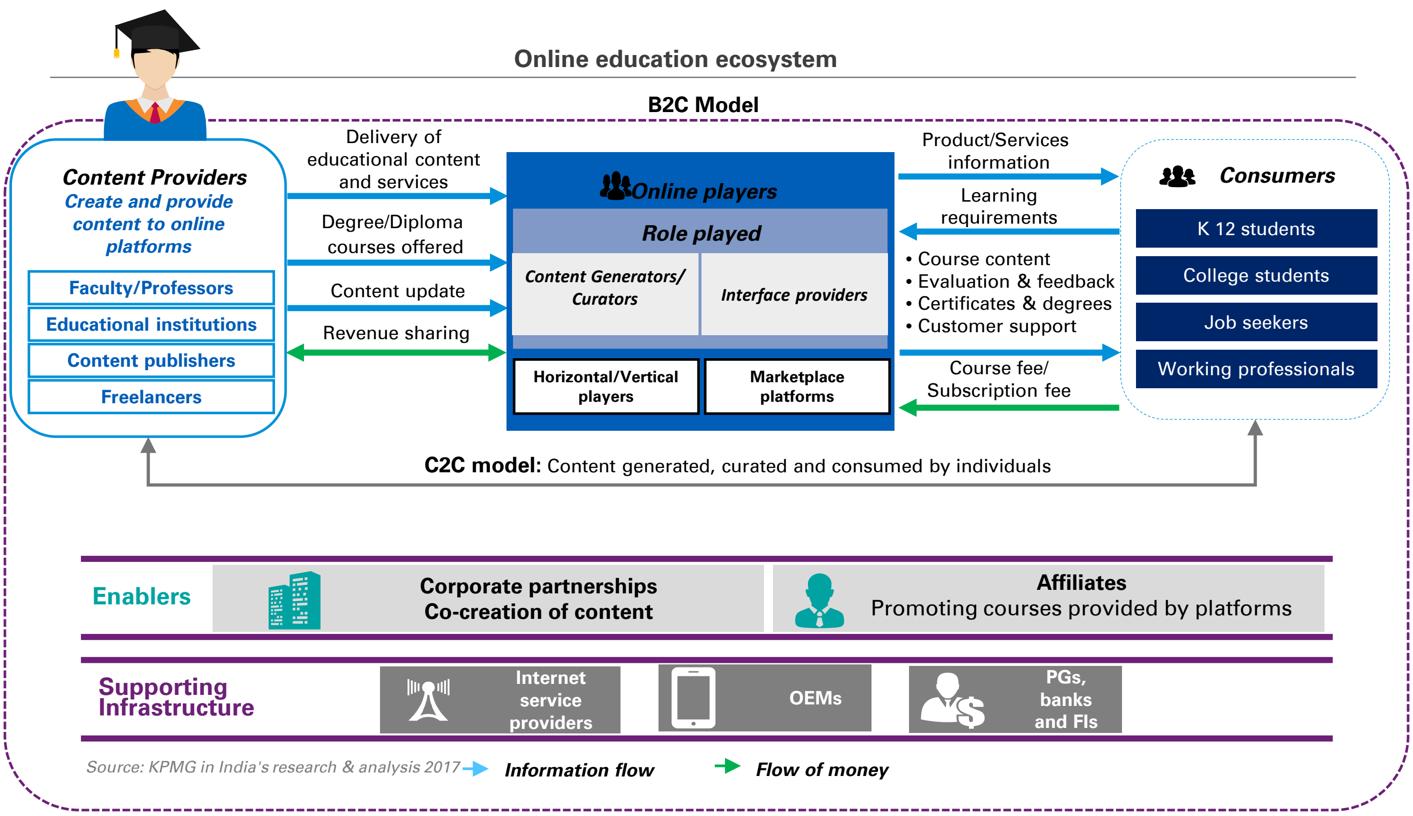
Source:
[1]- All India Survey on Higher Education (2015-2016), MHRD, 2016
[2]- Educational statistics at a glance, MHRD, Dec 2016
[3]- KPMG in India's research and analysis 2017

Overview of the online education ecosystem in India

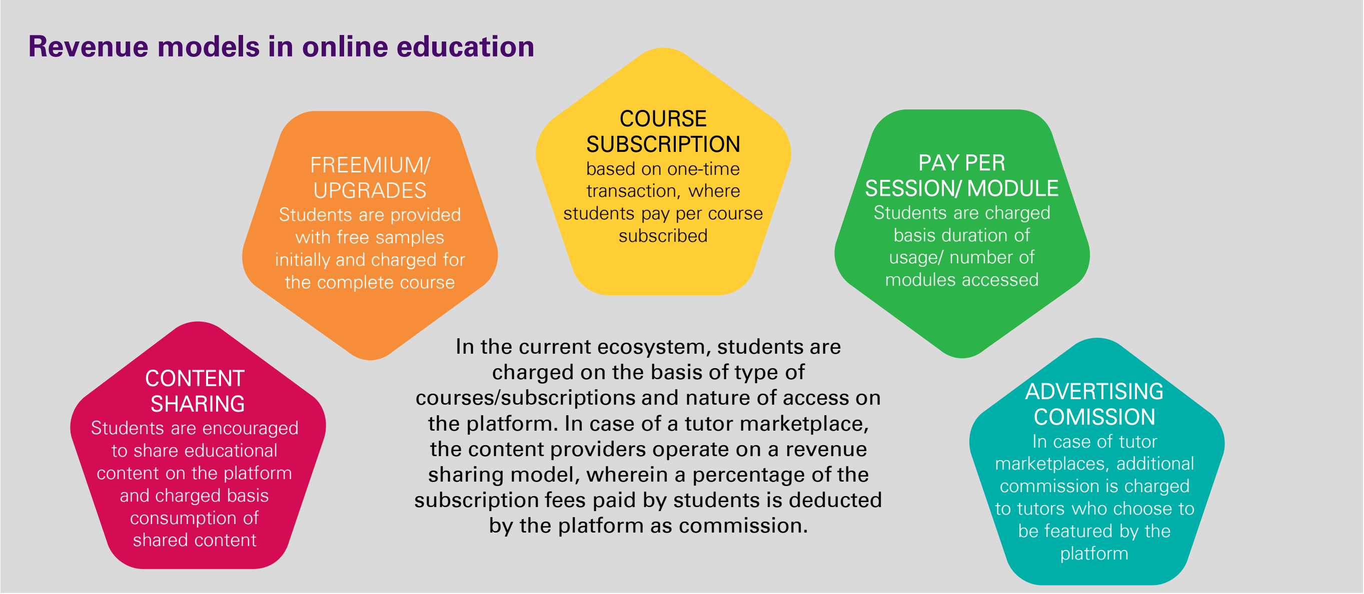
The online platform providers play a pivotal role in the online education ecosystem. Initially, the platform served as enablers by connecting prospective students and content providers. In recent times, the platform providers have increasingly played the role of content providers and curators.

Online education in India has a mix of dedicated online only and offline players with an online presence. C2C business models have also emerged where the platform connects prospective teachers and students. B2B offerings are prevalent in higher education, where institutions offer degree/diploma courses to students through their own platforms or third party aggregators.

Corporate tie-ups assist in co-creation of industry certified content, which enhances overall acceptance of online education amongst the target user base. Improved internet connectivity and adoption of digital payment options have significantly aided in the growth of online education in India.



Source: KPMG in India's research & analysis 2017



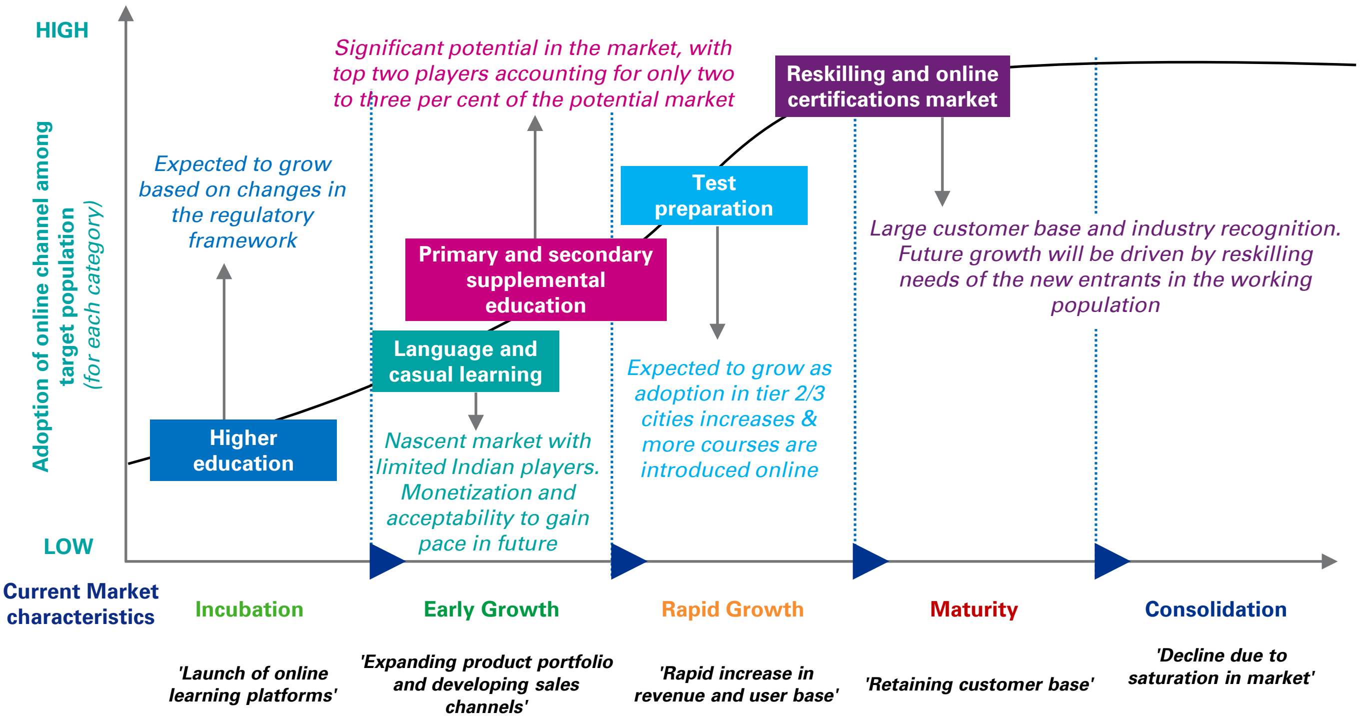
Source: KPMG in India research & analysis 2017

Online education: Key categories and market structure

Key categories of online education

• Primary and secondary supplemental education	Supplement to school learning for students enrolled in primary and secondary classes in school
• Higher education	Provide an alternative to traditional higher education courses
• Test preparation	Online programmes aimed at coaching students in preparation for competitive examinations
• Reskilling and online certifications market	Courses designed to assist users in skill enhancement, which may result in certifications
• Language and casual learning	Learning of non-academic subjects such as spoken English and playing guitar

Stages of development of different categories



Source: KPMG in India's research and analysis 2017

Current market scenario

Consumption (Demand)

- Current user-base for online education largely consists of – (i) school students and (ii) working professionals
- Volume-wise contributions of students and working professionals differ across categories. Primary and secondary supplemental education category comprises of students only, whereas reskilling and online certifications category is dominated by IT professionals.[4] Test preparations witnesses a mix of both, with students as the dominant user-base.

Online platforms (Supply)

- Test preparation category has a presence of multiple medium and small sized players, while reskilling and online certifications is dominated by large sized players offering a wide range of product offerings
- Players typically cater to both primary and secondary supplemental education and test preparation categories simultaneously.

Product offerings

- Certain categories are dominated by standard courses, whereas others require adaptive, innovative course modules
- Higher education, reskilling and online certifications offer standardized product offerings resulting in a degree or certification
- Primary and secondary supplemental education and test preparation categories require highly customised offerings.

Source:
[4]- KPMG in India's research and analysis 2017

Online education in India - 2016

The education market in India, currently standing at USD 100 billion[5] presents a lucrative opportunity for monetization. Introduction of technology has led to enhanced acceptance of alternative modes of learning in India. India has witnessed a significant increase in the total internet user population from 2011 to 2016 with overall internet penetration of 31 per cent in 2016[6]. Approximately 409 million internet users are expected to grow to approximately 735 million by 2021[7], presenting a positive future outlook for online business in India. This growth has also been supported by the exponential rise in number of smartphone users that reached around 290 million in 2016[8].

The online education market in India is USD 247 million in 2016 with approximately 1.57 million paid users.

Category-wise split of online education market in India (2016)

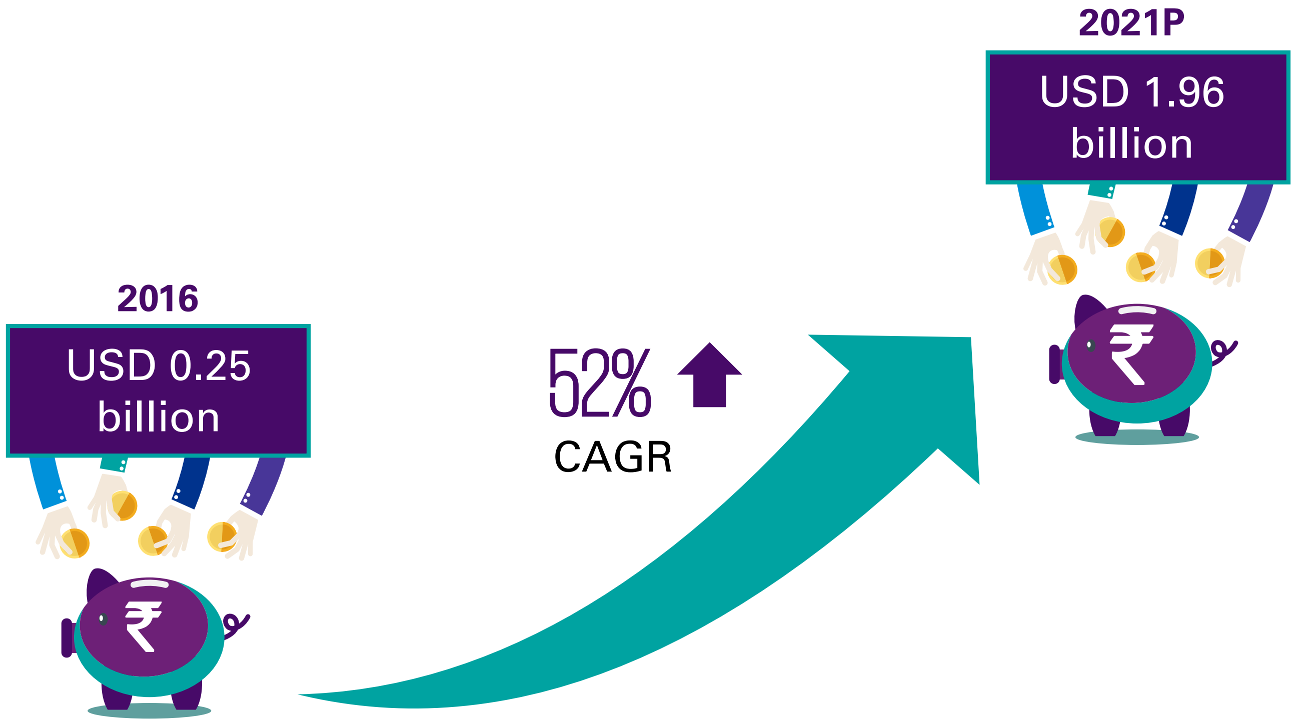
	USD (in millions)	No. of paid users (in thousands)
Online Education Market	247	1570
Primary and secondary supplemental education	73	467
Test preparation	43	196
Reskilling and online certifications	93	499
Higher education	33	55
Language and casual learning	5	353

- Reskilling and online certification courses is the largest category in the Indian online education industry, driven by IT professionals with a preference towards online trainings for skill development/enhancement
- Primary and secondary supplemental education is driven by the demand for quality education. The online channel provides a conducive educational avenue for these students who require focussed, individual learning
- Higher education is currently restricted by lack of clarity on regulations. A strong regulatory framework would make it a suitable substitute to distance learning programs and boost adoption
- Online test preparation witnesses reasonable adoption from target students largely from tier 2 and tier 3 cities
- Language and casual learning has a significantly high user-base, but with a low paying subscriber base, the B2C revenue is limited.

Source:
[5]- Education sector in India, India Brand Equity Foundation, April 2017
[6], [7], [8]- Indian Languages – Defining India's Internet, A KPMG in India-Google report, April 2017

Future of online education in India- 2021

Online education in India is expected to grow to USD 1.96 billion over the next five years driven by increased consumer adoption supported by macroeconomic changes, improvements in product offerings and changes in business models. The paid user base is expected to increase from ~1.6 million users in 2016 to ~9.6 million in 2021



Source: KPMG in India's research and analysis 2017

Expected Market characteristics in future

- Enhanced customer experience and support can attract students to online platforms
- Self-motivated, value driven users, will start researching courses extensively online before making purchase decisions
- Competitive differentiation by players via alternative technology enabled learning solutions
- Value added services such as industry interactions, career counselling and soft-skills development can further enhance customer retention
- Online players are likely to move towards blended education solutions. i.e. create offline touchpoints to enhance value
- Practical component of course content to be enhanced through live projects offering real-world application of educational concepts
- Customer feedback in the form of review and ratings would help generate trust in tuition marketplaces
- Government initiatives are expected to enable infrastructure support in rural areas
- Freemium model, i.e. providing students an opportunity to assess course content and quality prior to buying decisions is likely to continue to drive adoption

Growth drivers of online education

Cost of online education

Online education provides a low-cost alternative

- Lower infrastructure cost and a larger student base helps leverage on the economies of scale and hence reduced prices via the online channel
- ~175 per cent increase in cost of education from 2008 to 2014[9]
- Online skill enhancement courses are around 53 per cent cheaper than offline alternatives[10]

Graduation	Government colleges		Private colleges [11]
	INR 5-6L	Engineering	INR 8-10 L
	INR 5-10L	Medical	INR 18-20L
	INR 2K-15K	Commerce & Arts	INR 2.5-5L

INR 15,000 – 20,000 average transaction value range for online graduation courses in India[12]

Availability of quality education

Online channel provides quality education to potential students

- Open courses and distance learning enrolments in India to rise to around 10 million in 2021 growing at a CAGR of around ten per cent[13]
- Areas where availability of quality offline education is low witness higher adoption of non-traditional education methods. For example, states like Kerala, Bihar and Jammu and Kashmir account for ~ 4 Lakh distance learning enrolments[14]
- Stark difference in educational qualification between urban and rural Indian population

Rural India		Urban India [15]
4.5%	% Graduate male population	17%
2.2%	% Graduate female population	13%
INR 2.5K	Average annual spend on primary education	INR 10K

Employability quotient

Growing job seeking population drives the demand for industry relevant training

- ~ 280 million job seekers expected to enter the job market by 2050[16]
- Unemployment rate in India at a five year high of around five per cent in 2016 [17]
- Annual growth rate in availability of jobs at around two per cent per annum

1991 – 2013 [18]	
Increase in eligible working population	300 million
Population employed	140 million

Government's digital initiatives

Government initiatives to drive adoption of online education

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

Source:
[9]- National Sample Survey Office (NSSO) Report, July 2015
[10], [12]- KPMG in India's research and analysis 2017
[11]- What does it cost to educate your child in India: Tomorrowmakers, 25 November 2015
[13]- Three Reasons Why Distance Learning is Taking Off in India, Technavio, 17 April 2015
[14]- MHRD Higher Education at a Glance, 2015-16
[15]- Literacy rate at 71% in rural India, 86% in urban: Survey, DNA, 30 June 2015
[16],[18]- India to see severe shortage of jobs in the next 35 years, Live Mint, 28 April 2016
[17]- Highest unemployment rate in India in 5 years: Govt. Survey, Financial Express, 1 October 2016

Internet penetration

Internet penetration witnessing exponential growth across India

- Around 31 per cent internet penetration with about 409 million internet users today [19]
- Increasing penetration in semi-urban and rural areas provide high potential for growth
- Nearly 735 million projected users by 2021[20]
- Internet penetration will enable reach and increased traffic for the online education players

Smartphone userbase

Growing smartphone penetration across India to drive technological adoption amongst masses

- Nearly 290 million smartphone users in India today[21]
- Smartphone user base expected to grow with the addition of approximately 180 million new users by 2021[22]

Disposable income

Significant increase in disposable personal income

- Disposable income of the country is expected to grow by 55 per cent by 2020[23]
- India will keep its current rank as the world's second largest middle class till 2030[24]

Young population

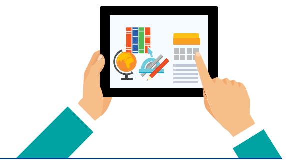
Large faction of Indian population is young, thus enlarging the target population for online education

- Nearly 46 per cent of population between 15-40 age group[25]
- Young population with high aspirations but lower income is a good target market for online education
- Further, the acceptability of online channel is also higher in the younger demographic

Source:
[19],[20],[21],[22],[23]- Indian Languages – Defining India's Internet, A KPMG in India-Google report, April 2017
[24]- Top 5 Emerging Markets with the Best Middle Class Potential, Euromonitor International, 20 September 2015
[25]- Census of India, 2011

Category-level market projections - 2021

The next five years are expected to present immense growth opportunities for all categories in the online education space. Currently, the most dominant category is reskilling and online certifications, standing at USD 93 million, and accounting for nearly 38 per cent of the total online education market. This is driven by the considerably higher acceptance for this category amongst the target audience and the growing need for reskilling across industries.



Category-wise market size (In USD million)

	2016	CAGR	2021P
Online education market	247	52%	1964
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Higher education	33	41%	184
Language and casual learning	5	42%	29

Source: KPMG in India's research and analysis 2017

Online primary and secondary supplemental education will be driven by the increased acceptance of the online channel among the target customers and increased internet penetration in tier 2 cities and beyond.

Test preparation will be the fastest growing category in online education for the next five years. This growth will be an outcome of high adoption of online channel amongst the students and an increase in the number of competitive exam aspirants.

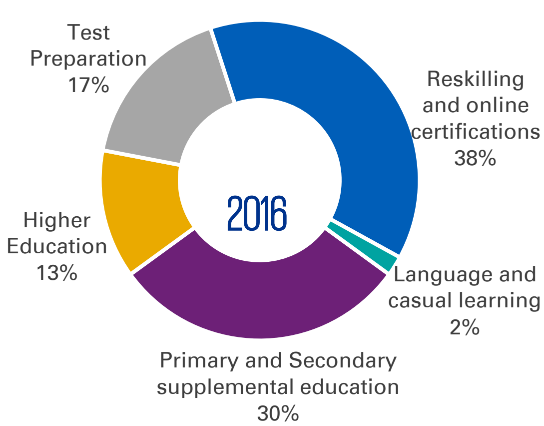
Online higher education will also witness a considerable growth and continue to aid in distance learning programs.

Skill development and enhancement requirements for the working population will lead to growth in the reskilling and online certifications market.

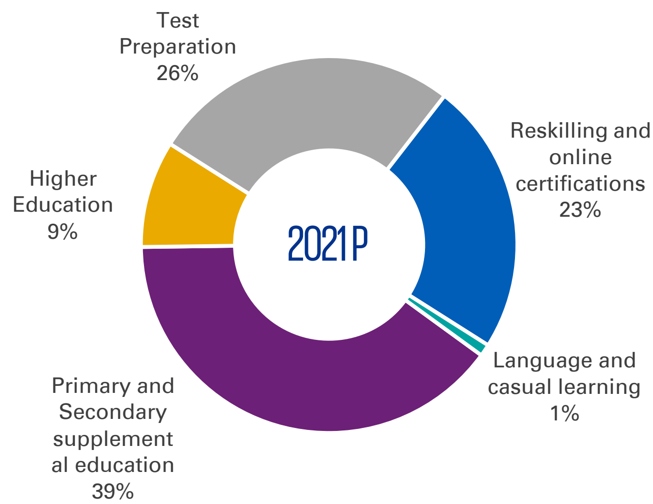
Online language and casual learning will grow driven by growth language learning, but paid adoption is likely to remain limited.

Category-wise split of online education market in India

Market size - 2016



Market size – 2021P



Source: KPMG in India's research and analysis 2017

Currently dominating and emerging categories in online education

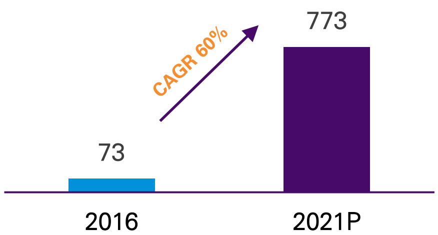
I. Primary and secondary supplemental education
II. Test preparation
III. Reskilling and online certifications
IV. Higher education
V. Language and casual learning

Primary and secondary supplemental education

Overview

Courses offered currently act as supplements to classroom education and as substitutes to tuition classes market.

Online primary and secondary supplemental education market size in India (In USD million)



Source: KPMG in India's research and analysis 2017

Tuition culture is prevalent in India with estimates of over 71M[26] students taking tuition to supplement their school education. Adoption of online supplementary courses is limited suggesting potential for strong growth in the future. This growth is likely to be driven by (i) evolving consumer behaviour wherein students are looking for detailed understanding of subjects rather than just clearing the examinations , and (ii) demand from tier 2 and 3 cities. Research indicates that modular content with smaller average transaction values could help in increasing consumer adoption in the future.

Market characteristics

- The market has select large players dominating the market and new smaller entrants with innovative business models
- The players have largely adopted a B2C model, however C2C model is gradually becoming prevalent through smaller platform providers whose offerings span across categories.

Revenue model

- Courses are offered as subscription packages for a set of subjects applicable to a particular class. Students have an option to customize the type of content that can be subscribed to and the learning methodology followed for the package
- Subscription fees is in the range of INR 10,000 – 20,000 per course per annum
- C2C platforms operate on a revenue sharing model, where the platform receives 15-35 per cent of the fee paid by the student and the balance by the content generator

Source: KPMG in India's research and analysis 2017

Key trends

Tutor marketplace

- Platforms enabling students to meet relevant tutors in online/offline mode is gaining increased acceptance
- This model witnesses strong traction from tier 2 and tier 3 cities.

Freemium model driving traction

Access to free content on the platform to provide an experience is driving adoption of freemium model, resulting in a rise in paid subscriptions among players.

Video content

- Students report higher satisfaction to video based content
- Around 50 per cent of online users indicate preference for video content on these platforms.[27]

Adaptive Learning

Driven by data analytics, online primary and secondary education is expected to evolve to accommodate various learning curves of students and coach them accordingly.

Challenges

Abundance of free content

Availability of free content diminishes the perceived value of paid content.

Multiple influencers in decision making

The decision to purchase online solutions is influenced by stakeholders such as parents, peers, faculty and the information available on the internet.

Lack of awareness

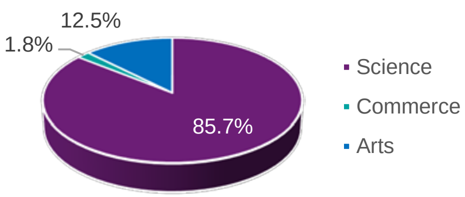
Lack of awareness of online offerings prove to inhibit rapid growth of the category.

Source:
[26]- National Sample Survey Office (NSSO) Report, July 2015
[27]- Nielsen Primary Survey, Online education users N=3608

User profile, channel and device preferences and key challenges

Who is the current user?

Academic background of higher secondary level students opting for online education



Stream of education opted in eleventh/twelfth standard [28]

Students with science background adopt online education in abundance

Adoption in this category is much higher among science students in higher secondary. These students prefer quality supplementary content to aid them in preparation for competitive exams, in addition to the school curriculum. Commerce/arts students adopting online courses are relatively lower on account of limited content availability.

Why are students opting for online education?

Online adoption is driven by convenience and availability of variety of courses

The online channel is viewed as a convenient mode of supplementary education which allows students to study at home and at the same time offers a wide variety of courses.

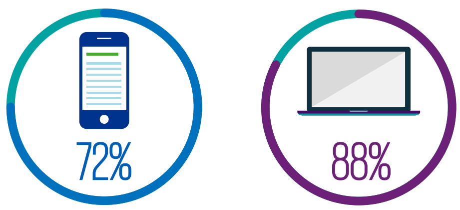
Key motivational factors to adopt online education [29]

How is the online content consumed?

A multi-channel approach is adopted by students as they progress through levels

Students access large sized content such as video sessions and assignments on laptops, while the other content is largely consumed on mobile phones. This makes it critical for players to have a multi-device offering in this category.

Device preference[30]

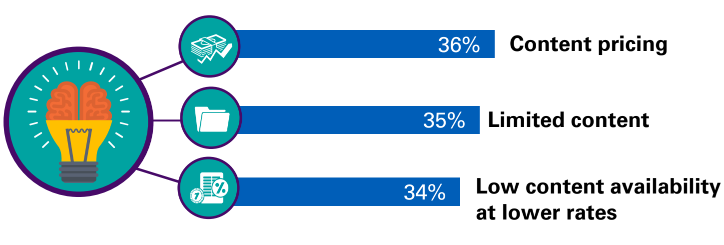


What are the key challenges faced by students adopting online education?

Availability and pricing of content are key challenges for online students

Content pricing is cited as one of the challenges for online students. Responses indicate need for more variety of content at affordable prices for increased adoption.

Key challenges[31]



Source:
[28], [29], [30], [31]-Nielsen Primary Survey, Online education users N=3608: respondents included students and parents of students consuming online primary and secondary education

Brand selection and payment preferences

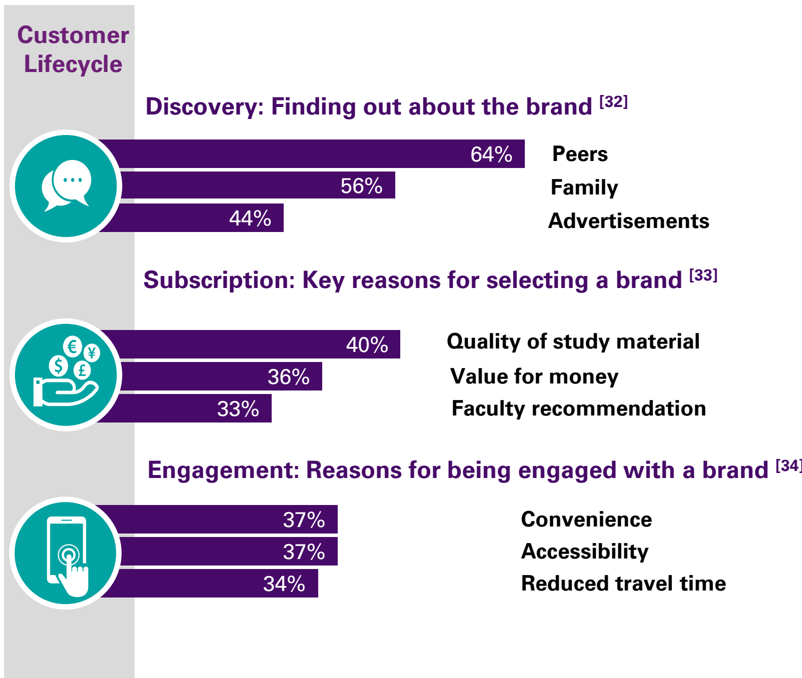
Why do students choose a specific brand?

Peer recommendations and quality of available content are key drivers for choosing a brand

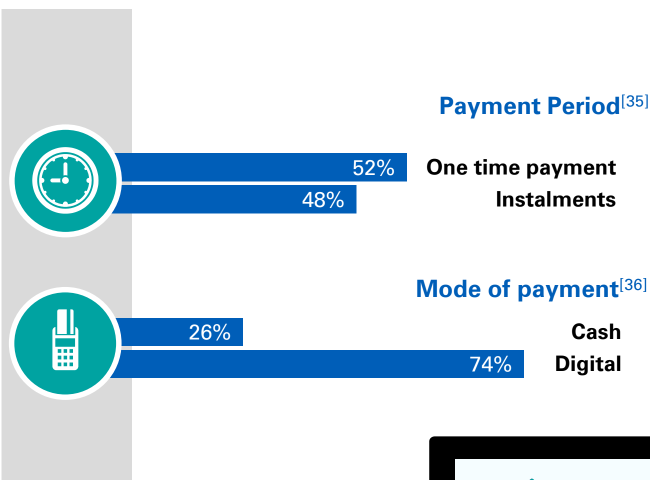
Peer review and feedback play a key role in discovery and selection of a platform. Online players need to focus on efficient feedback mechanism to have higher preference amongst target users.

The purchase decision is driven by quality of study material available on the platforms. The perceived value of the course by students is also important in the selection of a specific platform.

A student's engagement level with a brand is on account of access to online content anytime, anywhere. The time saved on commute as against the offline channel is also a key aspect driving engagement levels.



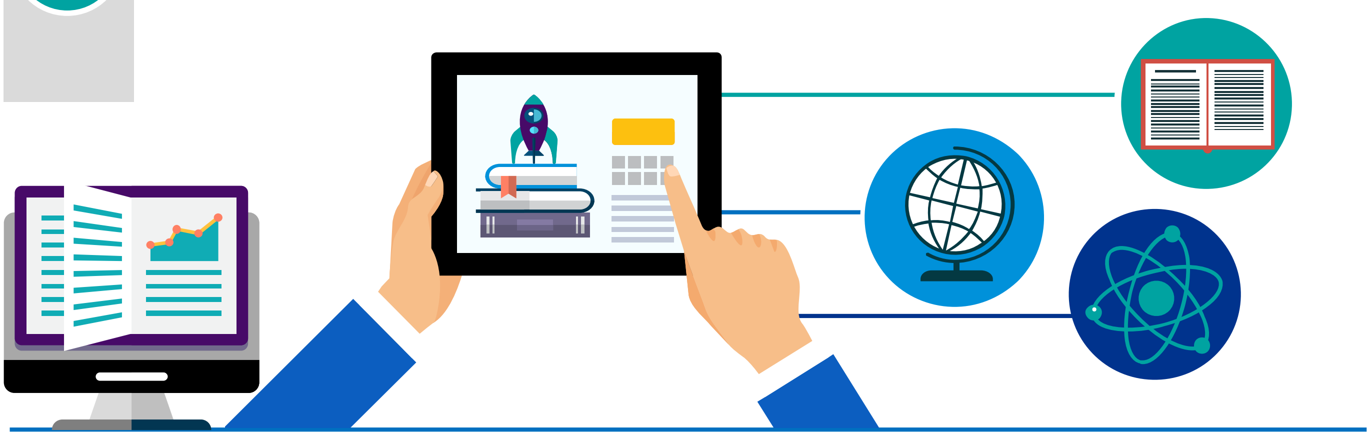
How are students paying for the courses?



Option to pay course fee through instalments could further enhance adoption of online channel

A significant proportion of users have indicated that they prefer to pay for the course fees in instalments. Flexible payment options could further enhance customer experience and adoption levels.

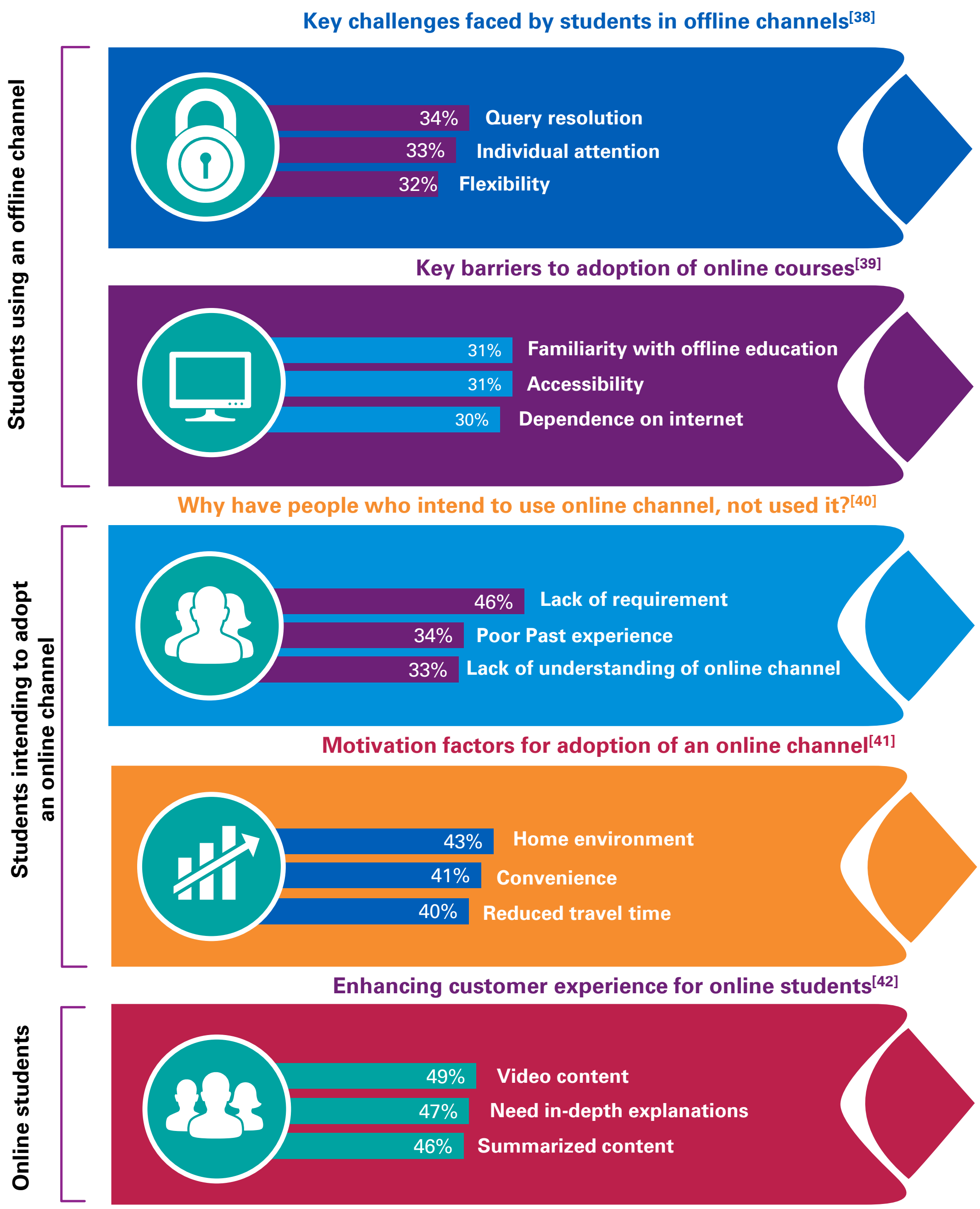
Considerable proportion of cash payments indicate a need for offline touchpoint to enable payments. This could be implemented via tie-ups with educational institutions and other offline channels.



Source:
[32], [33], [34], [35], [36] -Nielsen Primary Survey, Online education users N=3608: respondents included students and parents of students consuming online primary and secondary education

Acquiring and retaining customers

Acquisition and retention of online customers



Familiarity with the offline channel and lack of requirement are key barriers to adoption of online channel. Focused group discussions[37] also suggested lack of awareness as a challenge. Awareness needs to be increased, focusing on the convenience aspect and value add of the online channel to grow adoption.

Customer experience in this category is driven by quality and variety of content offered by the platforms. In some cases, students require video based content and detailed explanations, while others demand concise format for ease in revision.

Future outlook

Increased demand in domestic market and export opportunities in select Asian markets is expected to drive the future for online primary and secondary supplemental education

- New age learning techniques can have a significant impact on the adoption of online channel for this category
- Value added services such as career counselling and enhanced progress tracking could further increase adoption levels
- Players in this segment have witnessed demand from overseas; West Asian countries (e.g.- UAE, Kuwait) are emerging as an attractive export opportunity for this category.

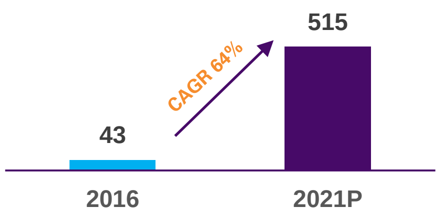
Source:
[37]- Nielsen Primary Research, Online education users and non-users N=40
[38], [39], [40], [41], [42]-Nielsen Primary Survey, Online education users N=3608: respondents included students and parents of students consuming online primary and secondary education

Test preparation

Overview

There are two distinct kinds of user-bases for this category based on exam types – Students opting for competitive engineering, medical and CAT exams and working professionals opting for exams such as Bank PO, CAT, UPSC and GMAT

Online test preparation market size in India (In USD million)



This category will be the highest growing sector and will witness an increased adoption of online channel. The online platforms could act as a substitute or supplement the existing offline test preparation market, which has been growing historically at a CAGR of 14 percent and is expected to be a USD 11 billion market by 2021, up from its current size of around USD 6 billion[43] . Due to the nature and end result of the preparations, these courses have low repeat customers.

Source: KPMG in India's research and analysis 2017

Market characteristics

- Highly fragmented market with multiple small players catering to test preparation for specific exams
- B2C is a prevalent business model with assessment modules attracting a majority of students looking to benchmark their performance against competition. C2C models are limited to community problem solving and query resolution amongst the students and faculty

Revenue model

- Test preparation modules usually contain webinars on different subjects, video and textual content to provide guidance in problem solving and test papers
- A popular course module in this category is the mock test series. Test series allow the candidate to participate in a series of tests in which their score is compared with other students. This provides the students with an opportunity to assess the comparative performance and identify areas of improvement
- Value added services such as counselling assistance are offered by players as a differentiator
- Courses are offered on a subscription based model ranging between INR 5,000 to INR 40,000[44] per course based on the exam type.

Source: KPMG in India's research and analysis 2017

Key trends

Mobile led learning to dominate in the future

Players have launched exam specific applications; optimized for mobile internet connections to provide modular content to a large customer base who prefer mobile devices.

Demand driven from tier 2/tier 3 regions

Lack of faculty availability in traditional channel drives aspirants towards online platforms in tier 2/tier 3 cities.

Growing demand for regional language content

Aspirants for Banking and insurance exams drive demand for regional content, as a majority of the aspirants use regional languages

Challenges

Widespread presence of prominent offline players

Presence of strong offline players with considerable regional presence, is a significant competition to online players

Availability of free content

Availability of free content impacts the transaction volumes for online players in this space

Evolving structure of competitive exams

Rapidly changing exam patterns, syllabus and level of difficulty levels impacts the creation of quality content

Source:
[43], [44]- KPMG in India's research and analysis 2017

User profile for online test preparation

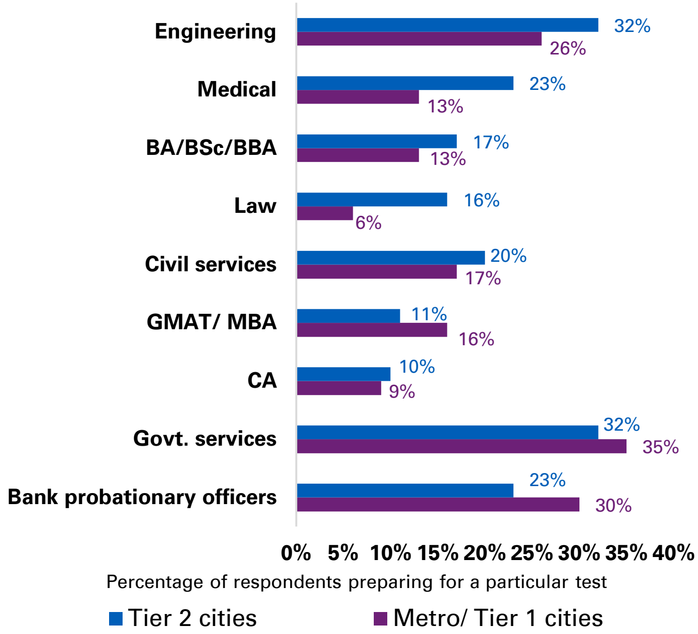
Who is the current user?

Tier-wise course preferences:

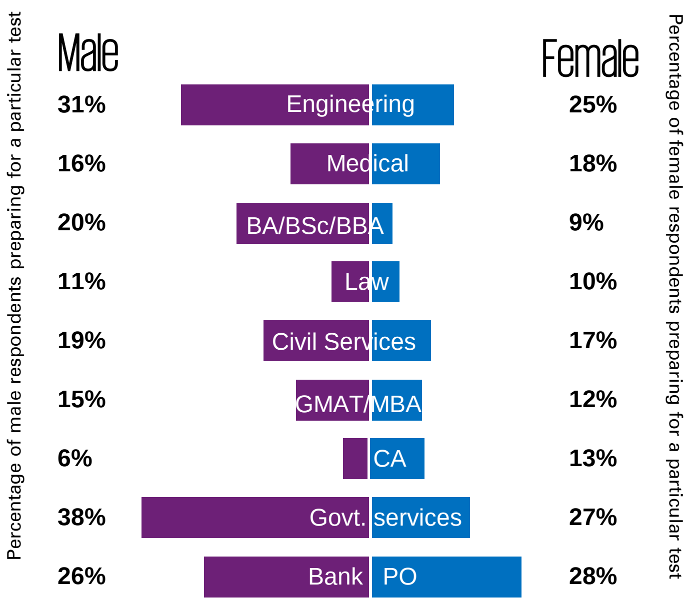
Job focussed test preparation has a higher adoption in tier 1 cities whereas under-graduation entrance exams are popular in tier 2 cities

The online adoption also has varied trends across tier categorization of the towns and cities. Metros and tier 1 cities have higher adoption in the test preparation courses resulting directly in a job such as Bank PO exams and government services. Tier 2 cities and other towns have a higher uptake for online test preparation related to undergraduate courses. This is on account of limited options available for quality test preparation content in these regions. GMAT/MBA courses have a higher uptake in metros and tier 1 cities on account of higher propensity to pay for these courses.

Tier-wise adoption of test preparation courses[45]



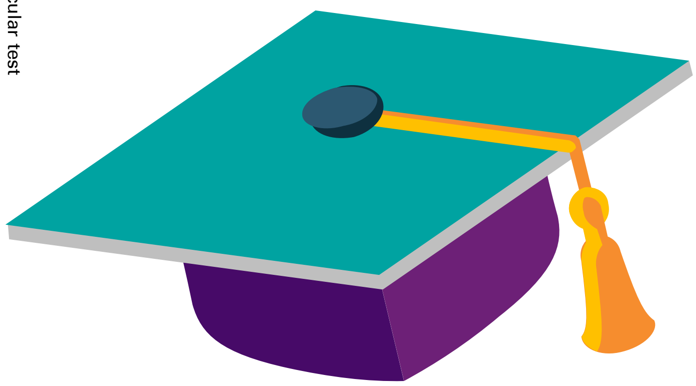
Gender-wise adoption of test preparation courses[46]



Gender-wise course preferences:

Government services and engineering courses are popular amongst male students, Bank PO amongst female students.

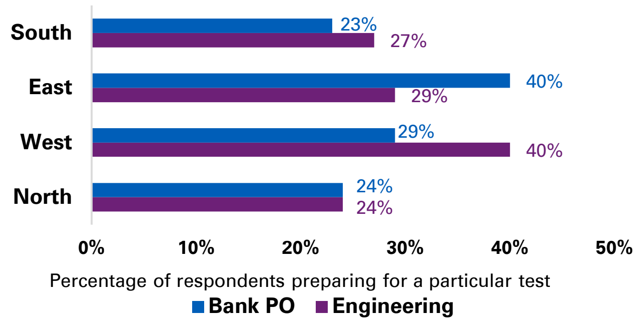
Government services and Bank PO courses have the largest number of users. However, course-wise preferences vary across genders. This is testimony to the gender ratio in the Bank PO jobs, where the percentage of women employees in public sector banks is the highest across industries. Engineering test preparation witnesses adoption by both genders, with a higher adoption by male users. This is also reflected by the current graduation rates, where 68 per cent[47] of all graduates are male engineers.



Source:
[45], [46]-Nielsen Primary Survey, Online education users N=3608
[47]- MHRD Higher Education at a Glance, 2015-16

Channel and device preferences and key challenges

Region wise adoption of online test preparation courses [48]



Course preferences across geographies:

The western part of India has a high uptake of engineering courses while bank PO courses have highest uptake in the eastern part of India.

Why are students opting for online education?

Students are driven by instantaneous results and flexibility whereas professionals are driven by convenience factor

Flexibility of online test preparation in line with the work schedule of professionals is a key factor to adopt online courses. The other important reason is their ability to track their performance over time, helping them prepare more efficiently for the exams.

Students on the other hand spend considerably long duration for test preparation and hence, look towards the platform for the ability to provide immediate results. Flexibility to start the courses and affordability of the online course are other reasons for adoption of online courses.

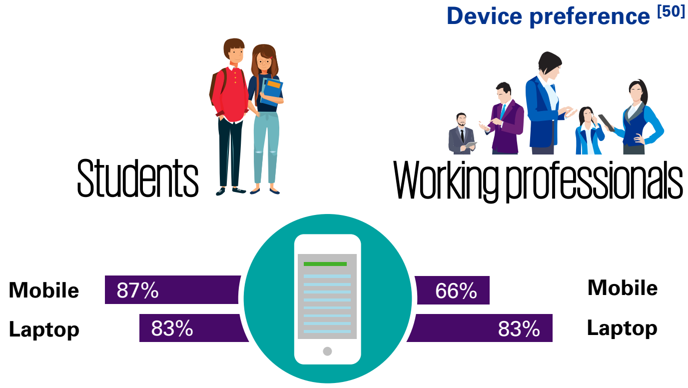
Key motivational drivers to adopt online channel [49]

How is the online content consumed?

Users consume varied content types across devices

Online test preparation courses are consumed across laptops and mobile phones. Usage of mobile phones is slightly higher among students while professionals prefer laptops for their test preparation.

Device preference [50]

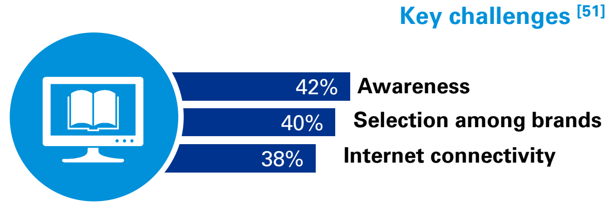


What are the key challenges faced by students adopting online education?

Low awareness of online platforms limit adoption for the channel

Lack of awareness about online platforms offering test preparation courses is cited as the reason for not adopting online by 42 percent respondents. With a considerable demand for online test preparations from tier 2 and tier 3 cities, internet connectivity will play a critical role in growth of this category.

Key challenges [51]



Source:
[48], [49], [50], [51]-Nielsen Primary Survey, Online education users N=3608

Brand selection and payment preferences

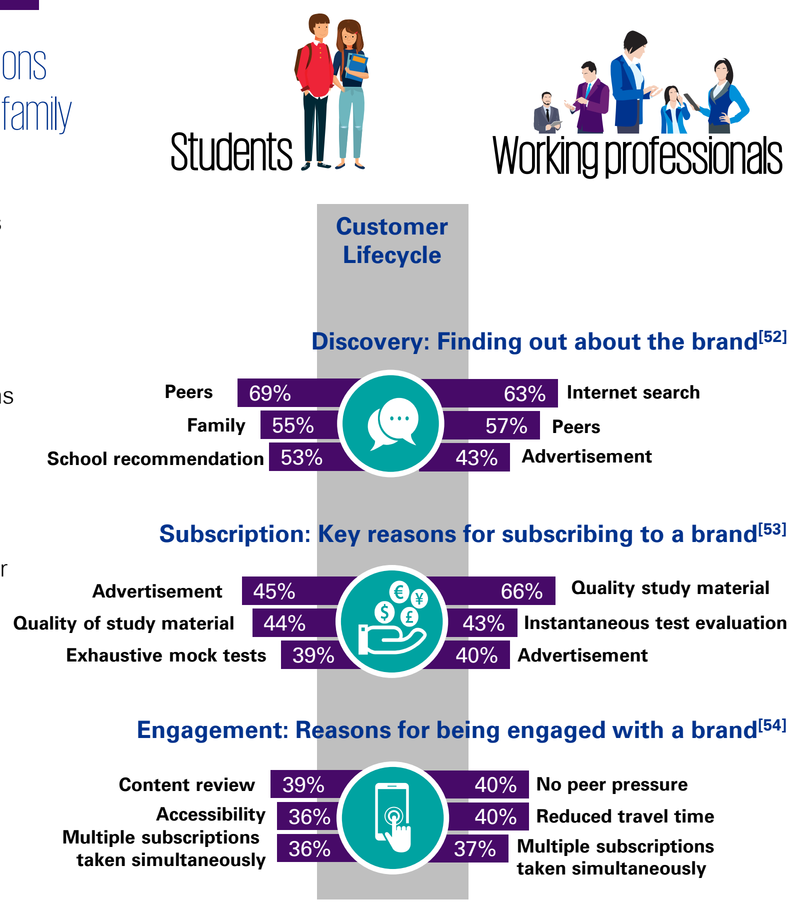
Why do students choose a specific brand?

Working professionals make research based decisions to subscribe for an online course whereas, friends, family and school influences a student's decision

The discovery phase for students and professionals varies in terms of influencers. Students are influenced by their friends and family but professionals prefer to base their discovery on their own research on the internet.

Selection of an online platform is an informed decision making process. Advertisements and content quality act as a key differentiator for students whereas, working professionals base their selection on quality of study material and value added services such as instantaneous test evaluation.

Convenience and accessibility drive engagement levels for this category. This includes multiple elements such as anytime, anywhere access and option to avail test preparation courses for multiple exams at the same time.

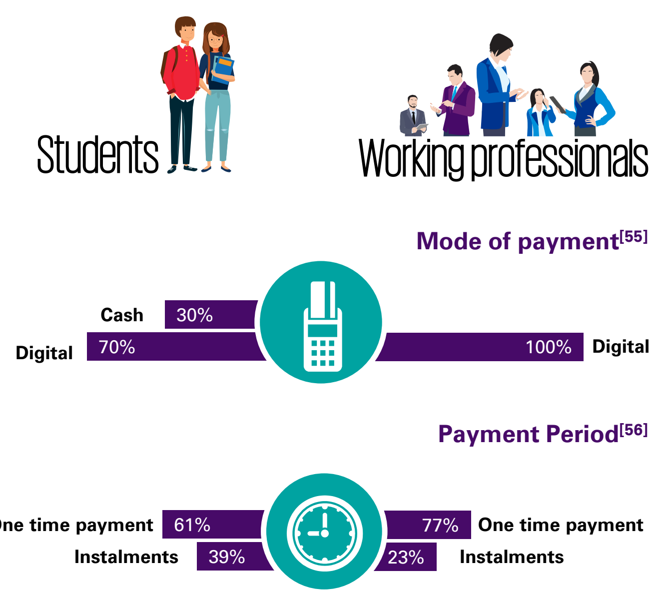


How are students paying for the courses?

High usage of digital payments by professionals and students

Working professionals show a higher propensity towards one time payment as compared to students. Working professionals also display a strong propensity to pay online, whereas students prefer payments in cash.

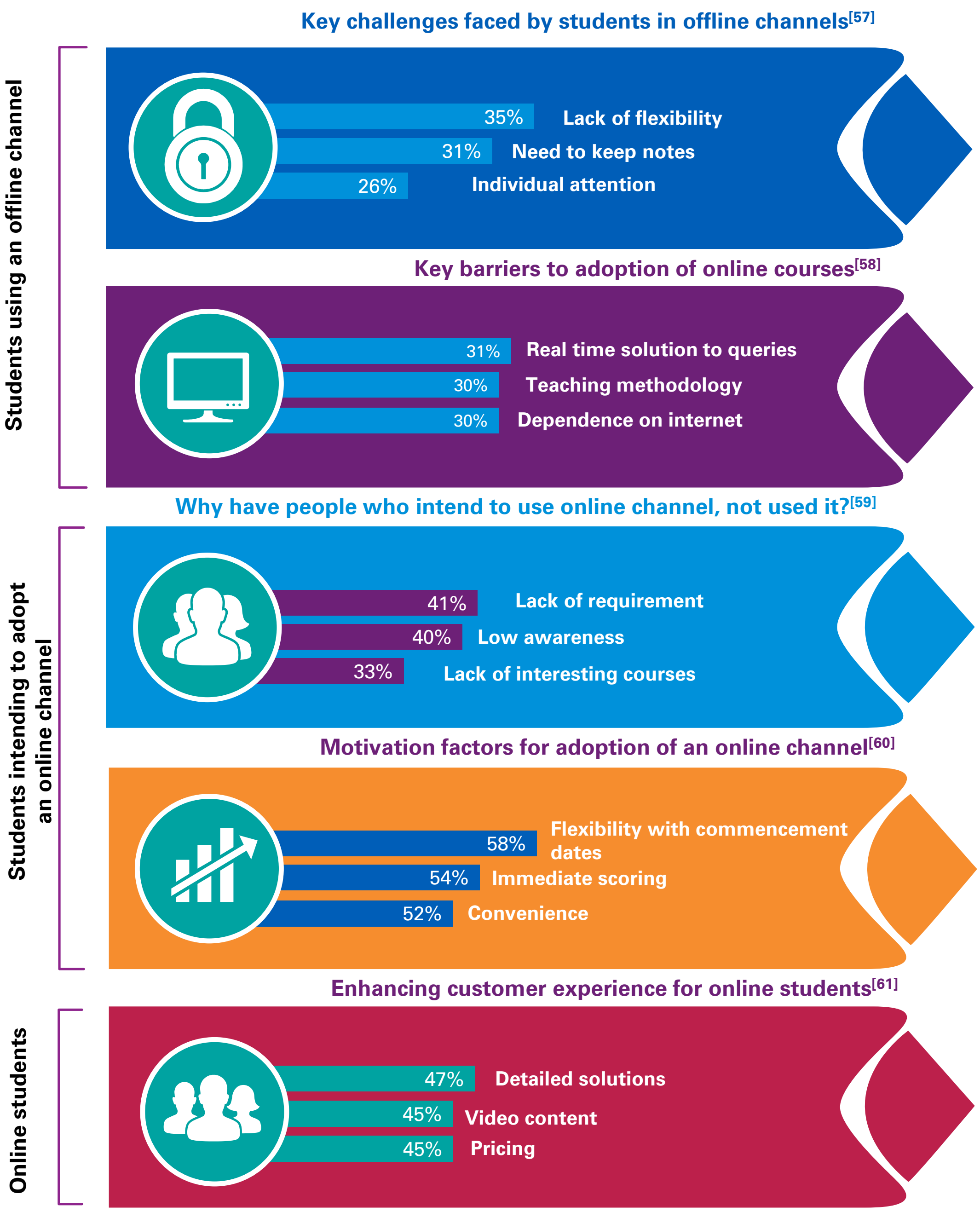
These trends indicate a need for offline touchpoints to tap a large student base and hence drive higher adoption levels for this category.



Source:
[52], [53], [54], [55], [56]-Nielsen Primary Survey, Online education users N=3608

Acquiring & retaining customers

Acquisition and retention of online customers



Offline test preparation students indicate lack of flexibility in courses as a key challenge . At the same time, large batch sizes of offline classes reduces individual attention for students. However, elements such as classroom experience and real time solution to queries still differentiate offline from the online channel.

Online test preparation offers students certain unique offerings. Students have the flexibility to schedule classes as per their choice. At the same time, students also gain frequent performance updates which enables them to continuously monitor their competitive readiness.

Going forward, online test preparation players should focus on enhancing product offerings through more in-depth solutions for assessment modules, higher video based content while focusing on communicating the unique value propositions of online channel over offline in this category.

Future outlook

Online test preparation is poised to witness rapid growth, based on increased acceptance in tier 2/tier 3 cities

Growth of online test preparation in the next 5 years is likely to emerge from tier 2/tier 3 towns. This is on account of limited options available for test preparation at these places. Rapid rise in internet infrastructure and wide acceptance of digital payments options, can contribute to the growth of online test preparations in tier 2/tier 3 cities. An emerging trend is the hybrid model, where online players have opened centres to provide an offline touch point to students and also a classroom experience at regular intervals. Hybrid model is expected to gain traction in the future.

Players in this segment are also looking at online options to address the overseas market looking to take competitive exams in India.

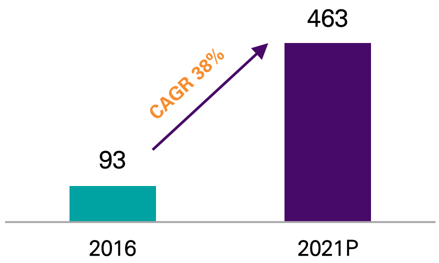
Source:
[57], [58], [59], [60], [61]-Nielsen Primary Survey, Online education users N=3608

Reskilling and online certifications

Overview

Working professionals in order to upskill/reskill opt for short-term certification courses on niche subjects. Online adoption is relatively high for technical certifications.

Reskilling and online certifications market size in India (In USD million)



Source: KPMG in India's research and analysis 2017

The online reskilling and certifications market is comparatively mature, as compared to other categories of online education in India, due to higher adoption of online channel among target users. The online channel is preferred due to the convenience factor and shorter duration of courses. The category is expected to continue growing at a strong rate of 38 percent driven by the need for professionals to continuously learn evolving technologies and the demand from new entrants to the workforce trying to find a space.

Market characteristics

- The market is oligopolistic in nature with a few large players accounting for a majority of the market share
- Given the nature of the course, there is a significant presence of international players in India and Indian players also have a presence in different international markets
- The current market is largely B2C dominated, however with companies emphasizing on continuous employee trainings, the B2B space is becoming important for the players in the space

Revenue model

- Courses have a three to six month duration, being priced in the range of INR8,000 to 16,000 per course
- The courses are delivered through instructor led sessions, live projects and case studies, assignments and query resolution
- Subscription to a specific course is one of the more prevalent revenue models where a user is provided access to the faculty, study material and also a training certificate issued post successful completion of the evaluation
- Select players offer duration based subscriptions, where users are provided access to all courses for a defined period
- Value added services such as recruitment assistance is gaining popularity for courses designed to meet industry needs

Source: KPMG in India's research and analysis 2017

Key trends

Free content drives online adoption

Free content is used by adopters to gain basic understanding of the course, eventually leading them to pay for certifications.

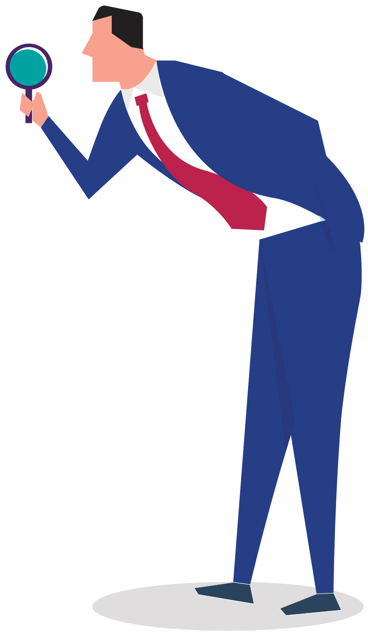
Constant need for reskilling in industries

A large percentage of the working population see reskilling as a necessity for career progression and job role changes, creating consistent demand. An average user signs up for two courses a year and five courses in a lifetime.

Challenges

Obsolescence of content

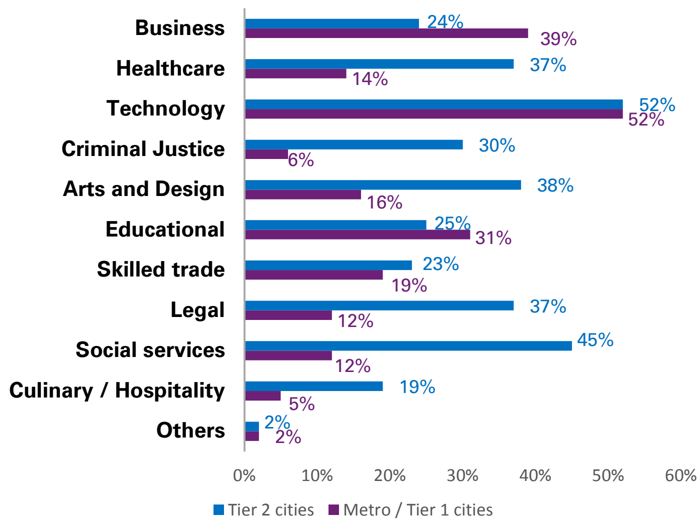
Such content generally has a short shelf life, and hence requires regular updates. Since this comes at a high cost, updating content remains a key challenge for players in this category.



User profile, channel preferences, device preferences and key challenges

Who is the current user?

Consumption of reskilling and certification courses across tiers[62]



Percentage of respondents opting for different courses across categories

High adoption in IT and IT related courses

Consumption of technology related courses is evenly distributed across tiers, but, other certifications have varied consumption patterns.

Certifications related to business management ,taken to progress in management roles, have a high adoption in metros and tier 1 cities.

Adoption of niche courses such as social services, legal, criminal justice, healthcare and arts is higher in tier 2 cities.

Why are students opting for online education?

Convenience drives adoption in metros, accessibility drives adoption in tier 2 cities

Given the high availability of offline certification courses in Metro/tier 1 cities, students from these areas look towards online channel largely as a convenient alternative.
However, in tier 2 cities, access to these courses is low in offline channel. The online channel makes relevant certification courses available to students in these cities.

Key motivational factors to adopt online education [63]

Metro/ Tier 1

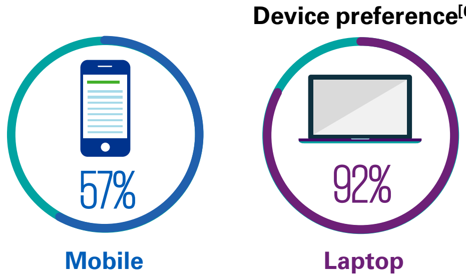
1. Convenience
2. Reduced travel time
3. Self paced learning

Tier 2

1. Access to study material
2. Better concentration at home
3. Convenience

How is the online content consumed?

Device preference[64]



Laptops are a preferred mode of content consumption

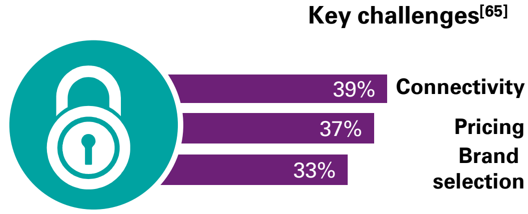
Working professionals have easy access to laptops owing to the nature of their work. As increasing number of working professionals are opting for online certification courses, laptop becomes the preferred mode of consumption. Consumption from mobile is relatively lower in this category with around half of the online adopters using mobiles along with laptops.

What are the key challenges faced by students adopting online education?

Availability of internet key pain point for current users

Content on certification platforms is majorly in the form of video lectures, requiring high bandwidth connections. This is a key challenge for current adopters. Pricing and difficulty in selecting appropriate brand for a particular course may be resolved in the future once there is more awareness and the value of these courses is clearly established.

Key challenges[65]



Source:
[62], [63], [64], [65]-Nielsen Primary Survey, Online education users N=3608

Brand selection and payment preferences

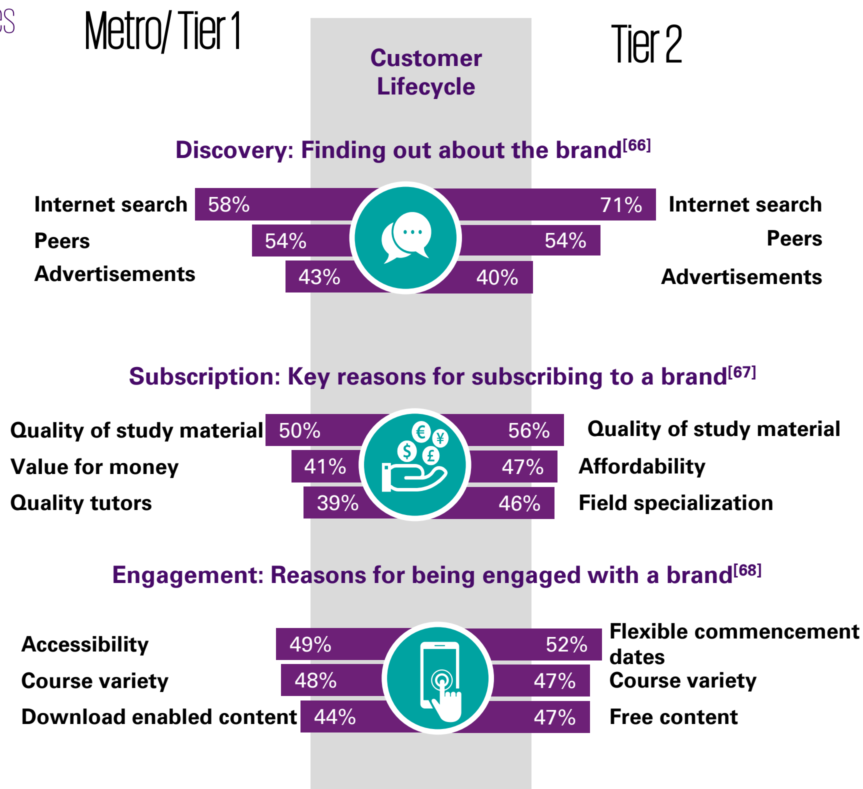
Why do students choose a specific brand?

Internet searches drive awareness, while quality drives purchase decisions

Brand awareness in this category is significantly research driven. Result-oriented working professionals looking for relevant certifications to add immediate value to their profiles, are major adopters in this category. Currently, prospective students perform extensive research to understand the course and make informed decisions. This trend is applicable across all tiers.

Users from metros and tier 1 cities want high quality content at an affordable price. Users from tier 2 cities want quality niche courses offered at affordable prices from reputable institutions.

Users in metros ask for course variety and downloadable content. On the other hand, users from tier 2 cities demand free content and large variety of courses. They also prefer flexibility in commencement of courses.

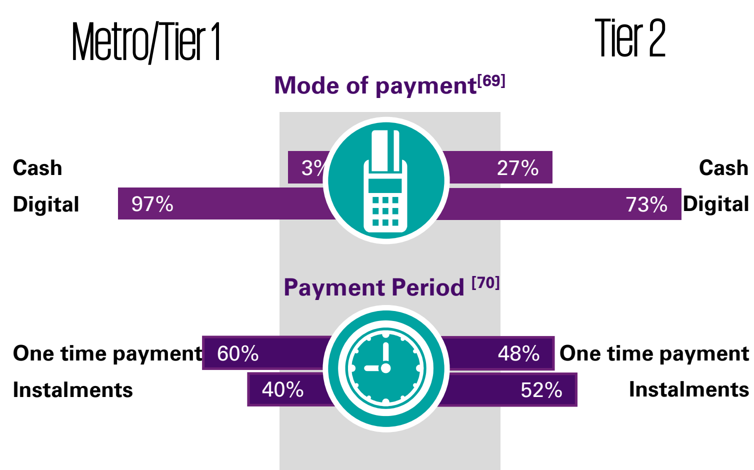


How are students paying for the courses?

Digital payments in tier 2 cities lag behind metros/tier 1 cities for this category

Metros and tier 1 cities have a high usage of digital payments, while tier 2 cities still witness a significant proportion of cash payments.

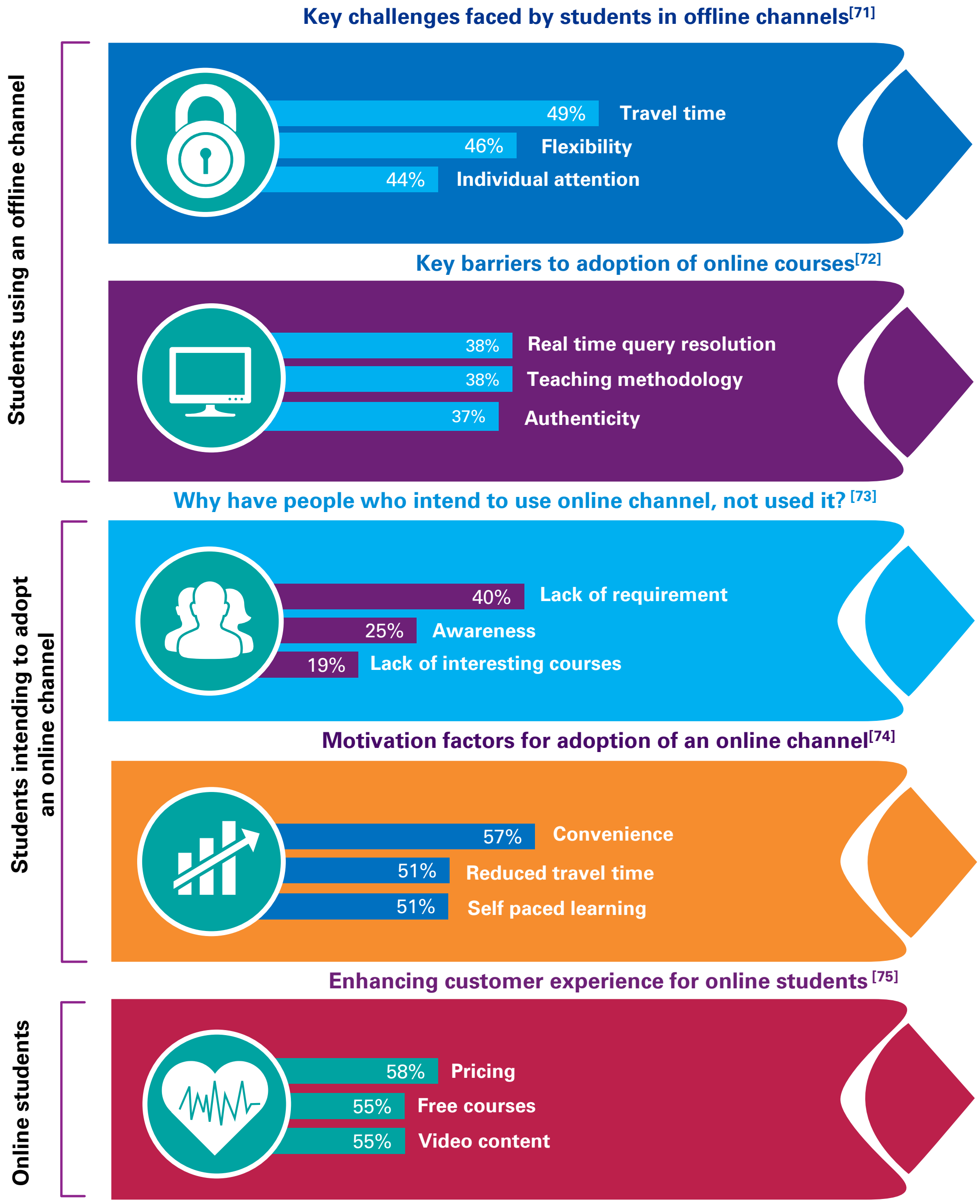
The category sees a higher preference towards one time payment, due to the shorter duration of courses.



Source:
[66], [67], [68], [69], [70]-Nielsen Primary Survey, Online education users N=3608

Acquiring & retaining customers

Acquisition and retention of online customers



Offline certification courses requiring working professionals to travel to classrooms to attend sessions as per a rigid schedule is cited as the biggest challenge with offline channel.

The online channel provides these users with the option of taking courses from their home/workplace as per their own schedules. However, doubts still persist over the authenticity and user support of such courses. Lack of awareness and lack of interesting courses re cited as reasons for low adoption.

Future outlook

Employee-motivated user traction and B2B offerings to gain pace in the near future

- Rise in disposable income and need for employees to distinguish themselves in the work environment could continue to fuel adoption in this category
- Highly customised product offerings for specific industries are expected to witness traction over the next few years
- Players in the online higher education segment are looking to diversify in this category
- This category is expected to witness growth backed by diversification of product and service offerings by current players looking to cater to the B2B segment.

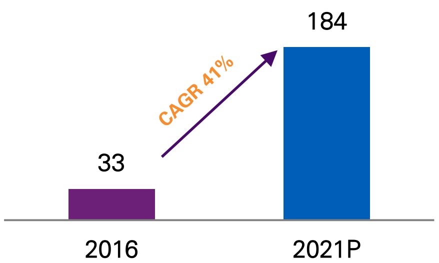
Source:
[71], [72], [73], [74], [75]-Nielsen Primary Survey, Online education users N=3608

Higher education

Overview

Online higher education acts as a direct substitute to the existing offline channel in India. This category forms a part of the formal education system.

Online higher education market size in India (In USD million)



Source: KPMG in India's research and analysis 2017

This category has a high uptake among the working population opting for a second degree. The current education system caters to only 23 per cent[76] of the eligible population. This demand-supply gap exists for a large segment of eligible students; unable to pursue higher education. The demand for online higher education is dominated by MBA/MCA courses. Innovative learning methodologies (e.g.- virtual labs) along with convenient and faster access can lead to increased acceptance of online education as a distance learning programme in the future.

Market characteristics

- Online higher education is at an early stage of development in India and has witnessed an emergence of private universities offering online degrees
- The market has a presence of B2C players and aggregators, serving as platforms for prospective students to interact with online universities
- Post graduation courses have higher adoption as compared to graduation and diploma courses; Online MBA is the most popular course.

Revenue model

Institutes usually charge a fees for the entire course payable in instalments or one-time payment, similar to the options available in the traditional channel. This fees varies across institutes and courses, with graduation and diploma courses in the price range of INR 15,000 to INR 50,000 and MBA courses at around INR 1,50,000[77].

Source: KPMG in India's research and analysis 2017

Key trends

Alliances
Partnerships between corporates and higher education institutions, facilitates employees adopting higher education courses without hampering their current productivity at work.

Growth of Mobile as a device preference
Mobile phones as a device for learning is gaining acceptance among the current student base and content creators in this segment are evolving their teaching methodology to adapt to this preference.

Short-term courses to gain traction
High demand for short term diploma courses in niche subjects as a second degree. Universities considering courses in new age subjects such as internet of things, big data and artificial intelligence.

Challenges

Need for classroom experience
Inability of the online channel to currently replicate aspects of the offline channel such as group learning, peer interactions, soft skill development, eventually impact personality development of the individual.

Need for practical experience
Currently, online channel has a limited practical component which impacts the courses offered in fields such as medicine, civil and mechanical engineering.

Regulations
Evolving policy framework for is category has resulted in limited players in this space in recent years.

Source:
[76]- MHRD Higher Education at a Glance, 2015-16
[77]- KPMG in India's research and analysis 2017

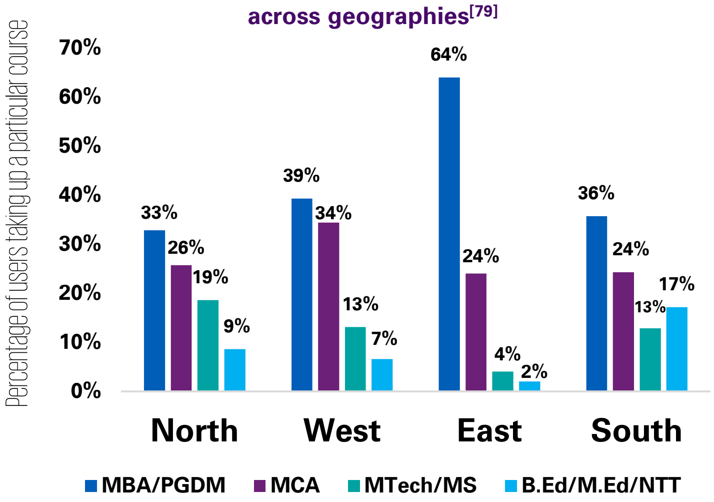
User profile for online higher education

Who is the current user?

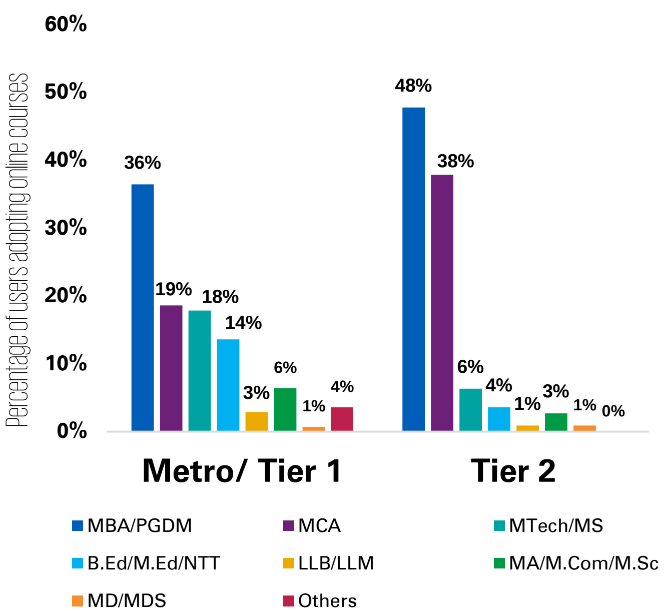
Demand for online channel is higher from regions with limited presence of reputed institutes

Only four out of the top 50 Business schools and 60 Management schools out of ~ 690 colleges[78] in India are present in the eastern part of India. Low presence of offline alternatives has resulted in a higher uptake by the prospective online users.

Course wise preference of online higher education across geographies[79]



Online higher education- Adoption of courses across tiers[80]



Adoption in tier 2 cities is driven by courses offering lucrative employment opportunities

Metros and tier 1 cities has higher adoption of different types of courses. Higher adoption of courses perceived to enhance employability such as MBA and MCA in tier 2 cities.

Source:
[78]- Business Today B-school rankings, Business Today, 2016
[79], [80]-Nielsen Primary Survey, Online education users N=3608

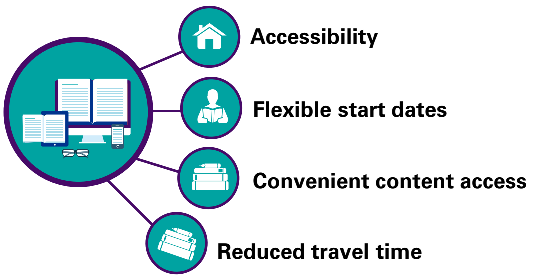
Channel and device preferences and key challenges

Why are students opting for online education?

Convenience and accessibility drive adoption of online channel for higher education

Channel preference in the category is driven by accessibility, convenience and flexibility. Online channel allows the users to multi-task along with other commitments, such as a full-time employment, family responsibilities, etc.

Key motivational factors to adopt online education[81]

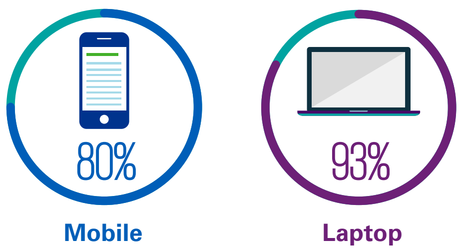


How is the online content consumed?

Smooth user experience across devices is necessary in this category

Strong trend of consumption on laptops indicates a higher level of seriousness by the students towards the course due to the value of the degree and higher ticket size in comparison to other categories. Mobile consumption indicates that the user is consuming different kinds of content on different devices, leading to a need for higher education players to customize their offerings to provide a seamless user experience across devices.

Device preference[82]

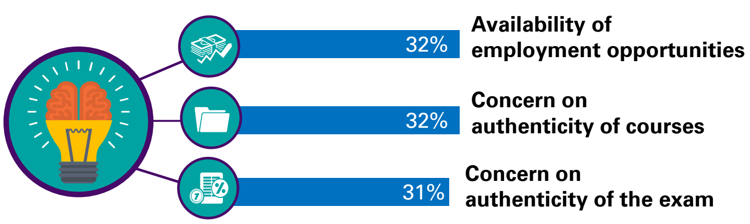


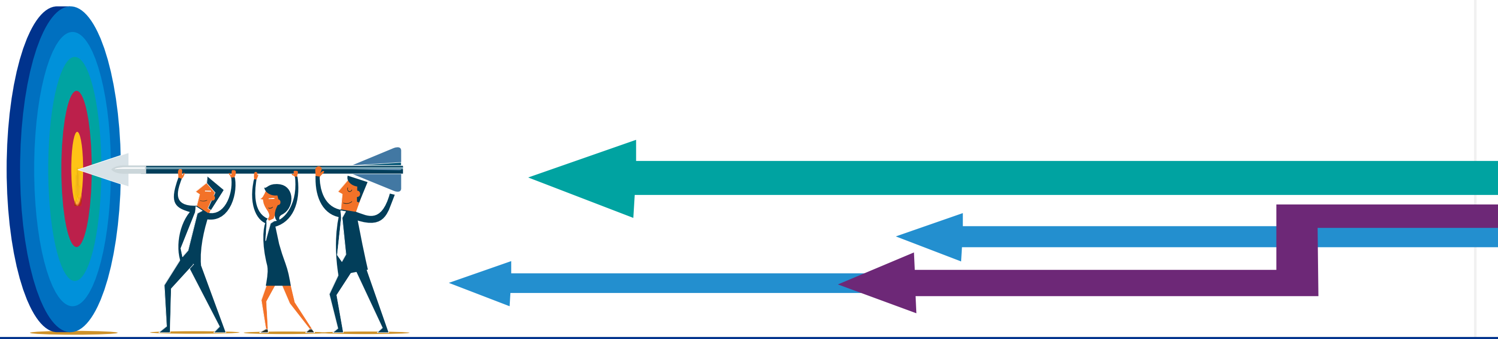
What are the key challenges faced by students adopting online education?

Lack of recruitment assistance and concerns over authenticity of courses and degrees are key roadblocks to the online channel

Majority of courses are driven by the job opportunities associated with them. Lack of recruitment assistance, therefore, is a key challenges for an online user. In addition, absence of a robust framework governing online education leads to authenticity related challenges. Evolving policy framework will play a key role in growth for this category.

Key challenges[83]





Source:
[81], [82], [83]-Nielsen Primary Survey, Online education users N=3608

Brand selection

Why do students choose a specific brand?

Discovery: Finding out about the brand[84]

MBA/PGDM	MCA	MTech/MS	B.Ed./M.Ed./NTT
70% Peers	88% Peers	69% Family	78% Peers
63% Internet	57% Family	59% Peers	61% Internet
59% Family	49% School recommendation	47% Internet	61% School recommendation

Peer influence and online research impact brand selection

Peers, friends and internet are the major source of awareness of different brands in the higher education category. While some students hear about a brand from their peers, family and schools, others depend on their own research on the internet to look for the available options.

Subscription: Key reasons for subscribing to a brand[85]

MBA/PGDM	MCA	MTech/MS	B.Ed./M.Ed./NTT
47% Value for money	49% Value for money	47% Quality study material	48% Affordability
41% Quality study material	49% Free content	44% Faculty	39% Offline touchpoints
40% Brand recognition	47% Specialization in the field	41% Course content	39% Bridge course

Purchase decisions driven by different factors for each kind of course

The online channel acts as a cheaper alternate to the offline medium. For MBA and MCA courses, students cite value for money and quality content as reasons for brand selection. Value of the degree for these courses is dependent on the quality of the brand, hence making it a critical factor for students. In contrast, MS/MTech. students focus on the quality of the course, based on the study material, the faculty and the course structure. B.Ed., M.Ed. and NTT courses are driven by affordable online offerings. Offline presence is also necessary for these users before purchase.

Engagement: Reasons for being engaged with a brand[86]

MBA/PGDM	MCA	MTech/MS	B.Ed./M.Ed./NTT
38% Studying at home	43% Learning methodology	44% Multiple courses	52% Self paced learning
38% Reduced travel time	43% Performance tracking	38% Accessibility	48% Reduced travel time
37% Value for money	43% Value for money	38% Value for money	48% No peer pressure

Value for investment is a key engagement driver towards a particular brand across course types

Students continue to use the selected brand only if there is a high value for money aspect derived from the subscribed course. Learning methodology and lack of peer pressure are also cited as other reasons for staying with the brand.

Source:
[84], [85], [86]-Nielsen Primary Survey, Online education users N=3608

Payment preferences

How are students paying for the courses?

Mode of payment[87]

	MBA/PGDM	MCA	MTech/MS	B.Ed./M.Ed./NTT
One time payment	67%	48%	71%	65%
Instalments	33%	52%	29%	35%

One time payments dominate all categories

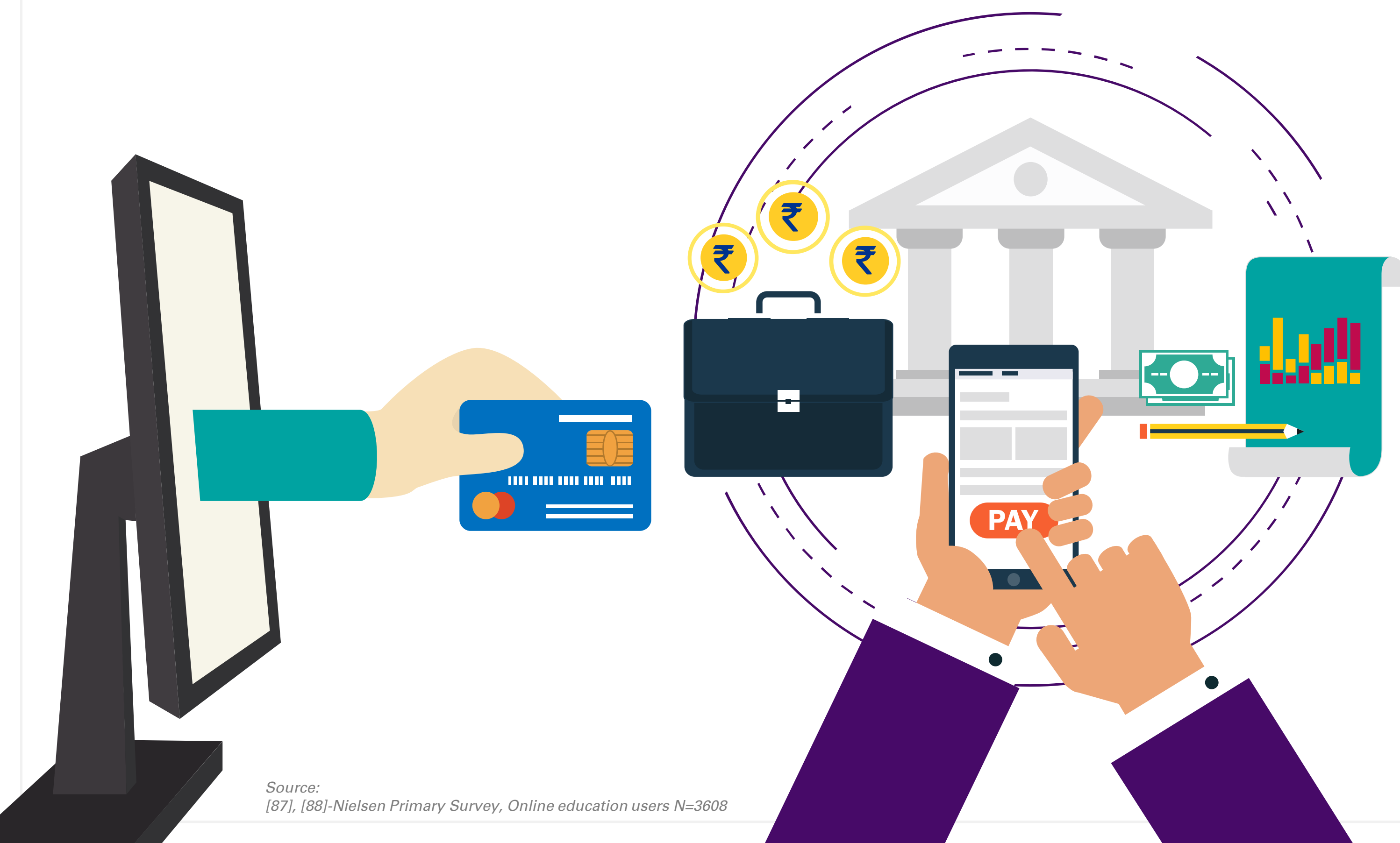
In contrast to the offline channel, one time payments is more prevalent online, which might be driven by the significantly lower transaction value in online channel.

Payment Period [88]

	MBA/PGDM	MCA	MTech/MS	B.Ed./M.Ed./NTT
Cash	12%	38%	13%	25%
Digital	88%	62%	87%	75%

High digital payments

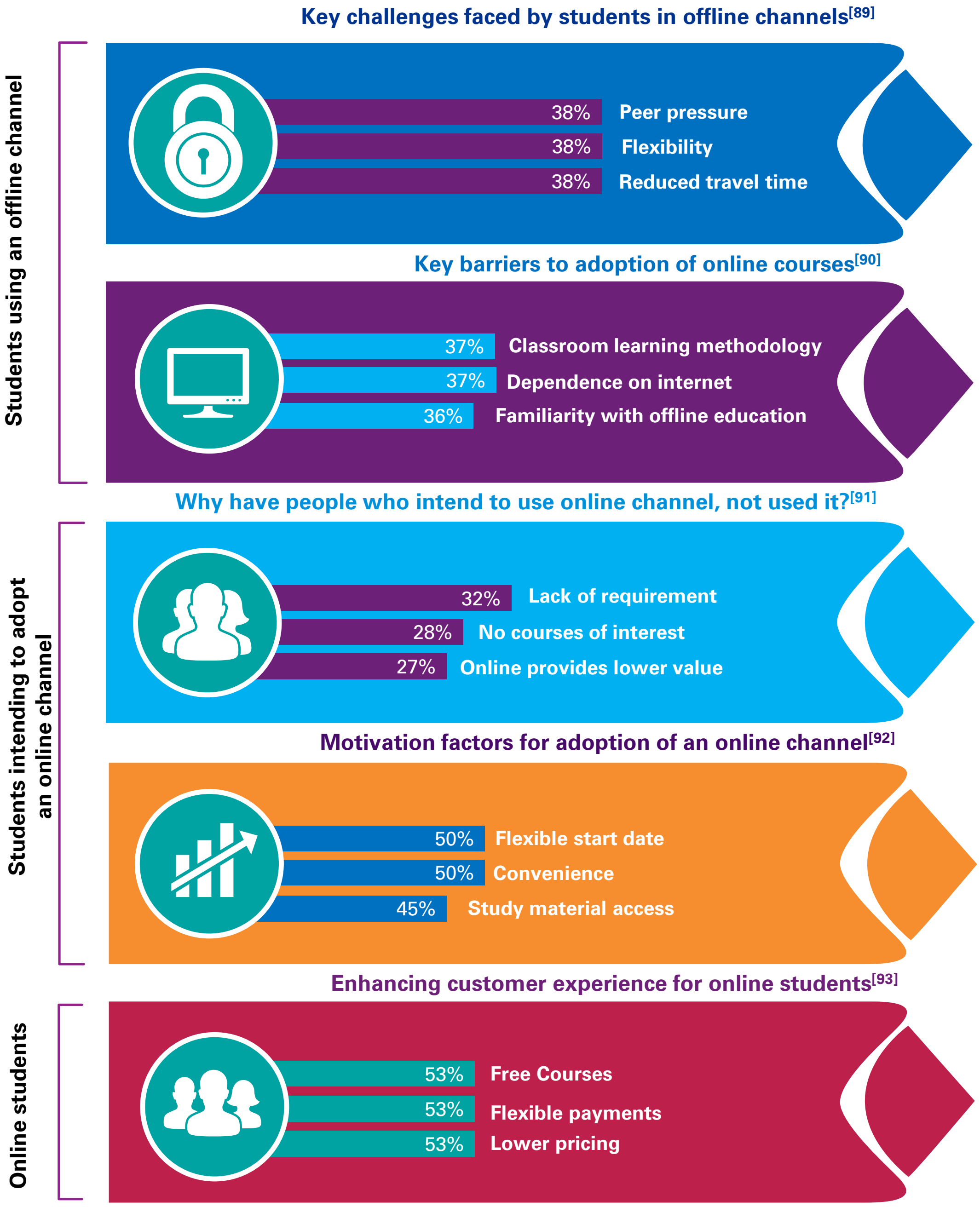
The usage of digital payments ,despite higher ticket size, is significantly high. However some usage of cash payments exist and players may need to consider offline touch points for payment collections.



Source:
[87], [88]-Nielsen Primary Survey, Online education users N=3608

Acquiring & retaining customers

Acquisition and retention of online customers



Post-graduation courses witness higher popularity as compared to graduation courses in online higher education. Majority of these students are either working professionals who are looking to progress in their careers basis a second degree or students who have completed their graduation courses and are looking to enter the job market through a higher degree. Thus, for these students an online higher degree course that can be completed from their homes/workplaces as per their individual schedules, is a convenient option. However, in higher education courses, the classroom experience is an essential aspect of learning. Students collaborate on projects/assignments with expert guidance from professors in a practical learning environment. At the same time, there is a higher familiarity with traditional higher education courses has restricted adoption of online. Thus, the need of the hour for online players in this category is to provide a wholesome learning experience for students at affordable prices.

Future outlook

Enhanced classroom experience and evolving regulatory framework will increase perceived value among the target users

These courses are limited to theoretical content currently; adoption of virtual classroom concepts could bring courses with a high practical component onto the online medium. At the same time, the online experience needs to be engaging in order to ensure a classroom experience for the students.

Category expected to benefit based on probable changes in the regulatory framework.

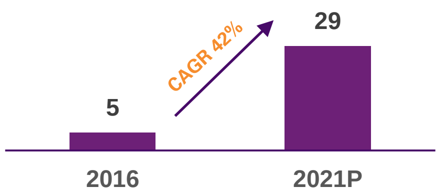
Source:
[89], [90], [91], [92], [93]-Nielsen Primary Survey, Online education users N=3608

Language and casual learning

Overview

This category acts as a supplement and substitute to offline alternatives. While it sees significant adoption, the number of paid subscriptions is considerably low.

Online language and casual learning Market size in India (In USD million)



Source: KPMG in India's research and analysis 2017

Driven primarily by English language learning, the overall language learning market in India is expected to continue growing as players come up with newer, differentiated alternatives. Adoption in the online language learning space is primarily driven by English learners, who demonstrate a high level of seriousness towards learning, by taking evaluation tests and paying for the provided content. Monetisation through paid subscriptions in the online language and casual learning category is anticipated to remain low, with ad-based revenues forming the major share of revenues.

Market characteristics

- The language and casual learning market is highly fragmented, with high potential for newer niche players in the market
- The market is highly B2C dominated, with some cases of C2C presence showing up, where the platform acts as an enabler for students and trainers to interact
- Language learning courses have seen a much higher adoption in comparison to other hobby related courses

Revenue model

Users in this category are charged via a variety of models:

- Course fee model: Users are charged for the entire course upfront at a subscription fee
- Pay as you go model: Users pay for duration of content consumed online
- Freemium model: Users can access basic chapters of the course for free, but need to pay for more advanced lessons
- Revenue sharing model: Fees paid by customers is split between the trainer and the platform

In addition to the aforementioned revenue streams, advertising revenues form a major revenue source for platforms.

Source: KPMG in India's research and analysis 2017

Key trends

Evaluation modules see adoption

Language learners are increasingly opting for evaluation modules, which conveys a sense of seriousness towards the course, as opposed to casual learning.

Mobile driven adoption

Customers show a preference towards light, on the go mobile applications, with bite sized content format.

Conversational skills preferred

In the language segment, adoption seems skewed towards basic conversational skills, in comparison to structured learning courses.

Challenges

Channel inefficiencies impact learning

Inability of the channel to cater to hobbies with a practical component, such as cooking or instruments, results in lower satisfaction associated with courses online.

Availability of free content

High availability of free content on streaming sites and other mediums, results in a large portion of the non serious learners in the user base moving to these platforms, resulting in loss of ad revenue from these customers.

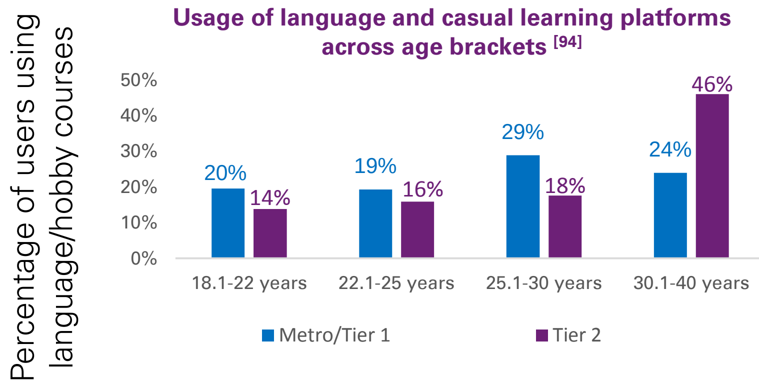
User profile, device preferences, key challenges & Brand selection

Who is the current user?

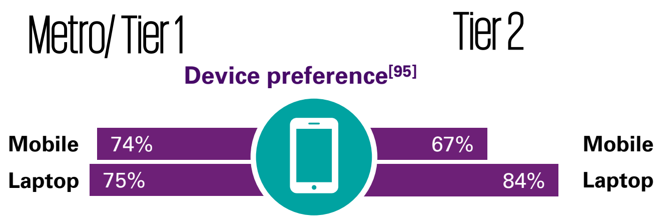
High adoption amongst older age group in tier 2 cities

In metros/tier 1 cities, adoption for this category of courses is evenly distributed across age groups.

However, in tier 2 cities, adoption is high amongst users of older age groups.



How is the online content consumed?



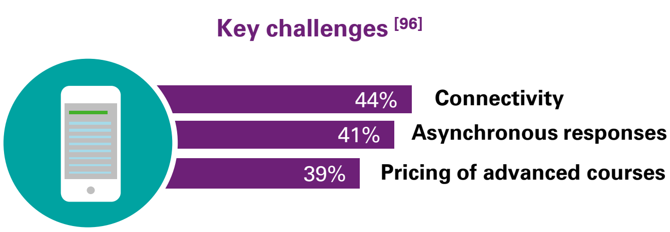
Laptop is the preferred device of usage

English language learners form a majority of the user base for this category, especially in tier 2 cities. These are users looking to enhance their profiles with added proficiency in English. Hence, there is a tendency to successfully complete courses amongst these users, which is demonstrated by higher usage of laptops.

What are the key challenges faced by students adopting online education?

Persistent connectivity issues are an area of concern for users

Users in this category have indicated connectivity and asynchronous support from platform providers as top two challenges. Thus, players in this category need to focus on technological improvements to their products to enhance customer experience.

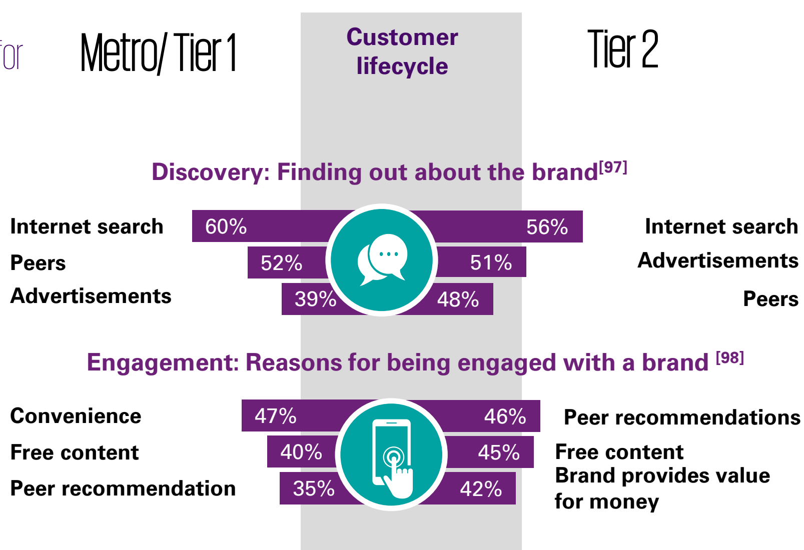


Why do students choose a specific brand?

Awareness driven by internet search; trials essential for purchase

Internet searches dominate the discovery of brands in this category. Users typically explore multiple options available online before finally selecting a brand.

Availability of free content and recommendations from peers are key reasons for engagement across tiers. While users in metros/tier 1 cities value convenience, a large section of users in tier 2 cities also focus on the value for money aspect of courses.



Source:
[94], [95], [96], [97], [98]-Nielsen Primary Survey, Online education users N=3608

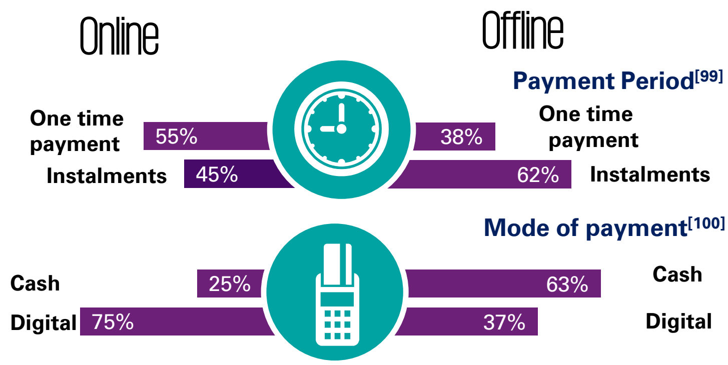
Payments, acquiring & retaining customers

How are students paying for the courses

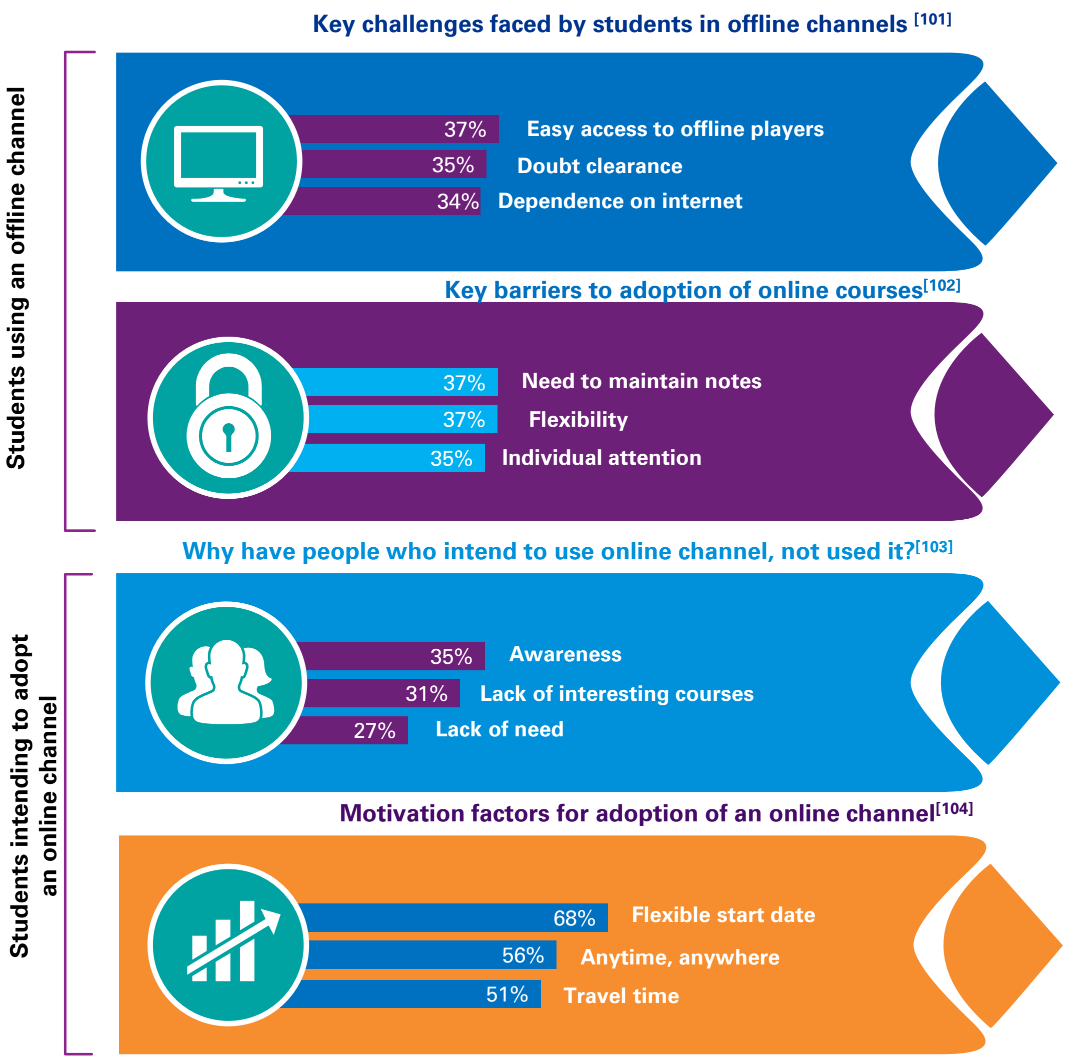
Payment overview contradictory to offline space

The offline space is dominated by users paying course fees in instalments via cash.

In contrast, users in the online channel are making upfront digital payment of course fees.



Acquisition and retention of customers online



Hobbies and language learning courses typically have a high practical component in their teaching pedagogy. At the same time, there is an abundance of offline options for this category, Hence, the adoption of online courses is low.

The online channel provides users with the option of learning on the go as per schedules of their convenience. This value proposition is to be communicated to prospective users in order to drive adoption for this category.

Future outlook

Language learning could continue to dominate adoption in this sector in the near future

- Sector may continue to see growth in user base, however propensity to pay may remain low
- Advertising could continue to be a key revenue driver for these platforms.

Source:
[99], [100], [101], [102], [103], [104]-Nielsen Primary Survey, Online education users N=3608

Future trends in online education

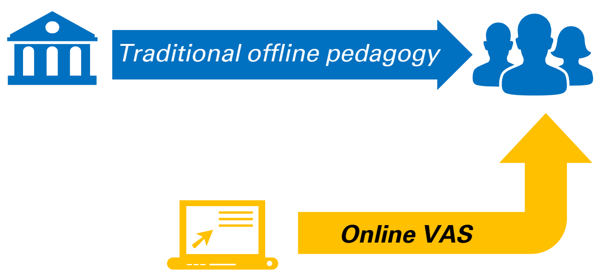
Hybrid channel adoption by existing traditional and online players

In the future, online education will continue to gain popularity among prospective learners including students and professionals driven by aspects such as easy and on-demand access to content, self-paced learning opportunities and interactive & modular means of learning. However, nearly one third of online learners also believe that online education does not substitute traditional learning due to lack of interaction with peers and instructors.[105] Low completion rates of online certification courses due to lack of feedback and interactions further underlines the need to have multiple touch-points with the learners for improved engagement levels. Virtual class rooms could also emerge as an asset-light model for offline players to expand their network across geographies.

The learner will therefore demand ubiquitous presence of learning and content, where each channel may serve a different need.

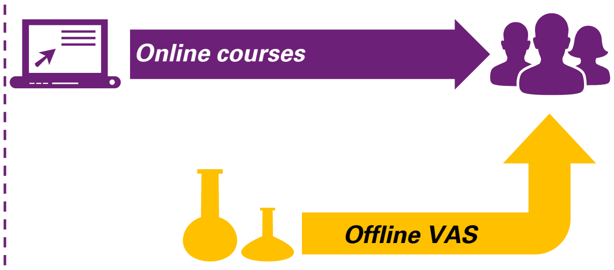
Potential hybrid channel business models that may emerge in the future are:

Online VAS by offline players



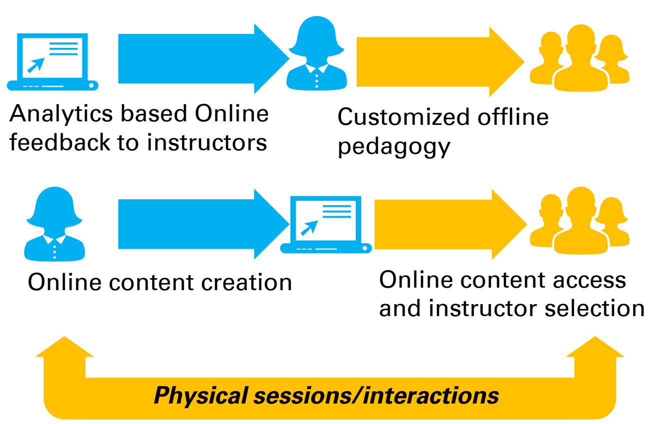
In order to meet the on-demand content needs of their students, offline institutions may offer Value Added Services (VAS) online.

Offline touch-points by online players



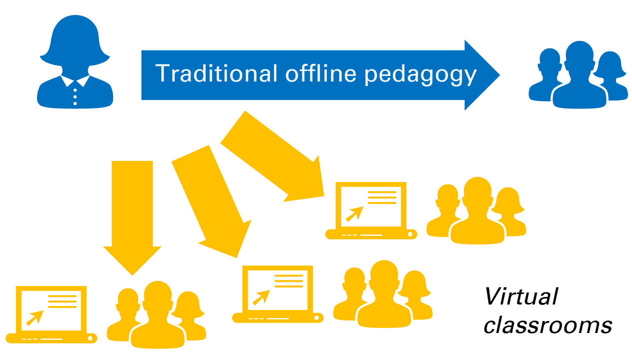
Online learning platforms may start engaging with the students through offline touch points – labs, group discussions, etc. to bridge the gap with traditional modes of learning.

Online to Offline model



Online platforms to aid offline faculty in evaluating the students through in-depth feedback online. Also, online platforms could assist offline students in aspects such as class scheduling and instructor selection.

Market expansion by offline players



Expansion of market reach by way of virtual classrooms may become increasingly common amongst offline players. This will aid in offering a mix of theoretical and practical experience for course requiring practical knowledge and soft skills.

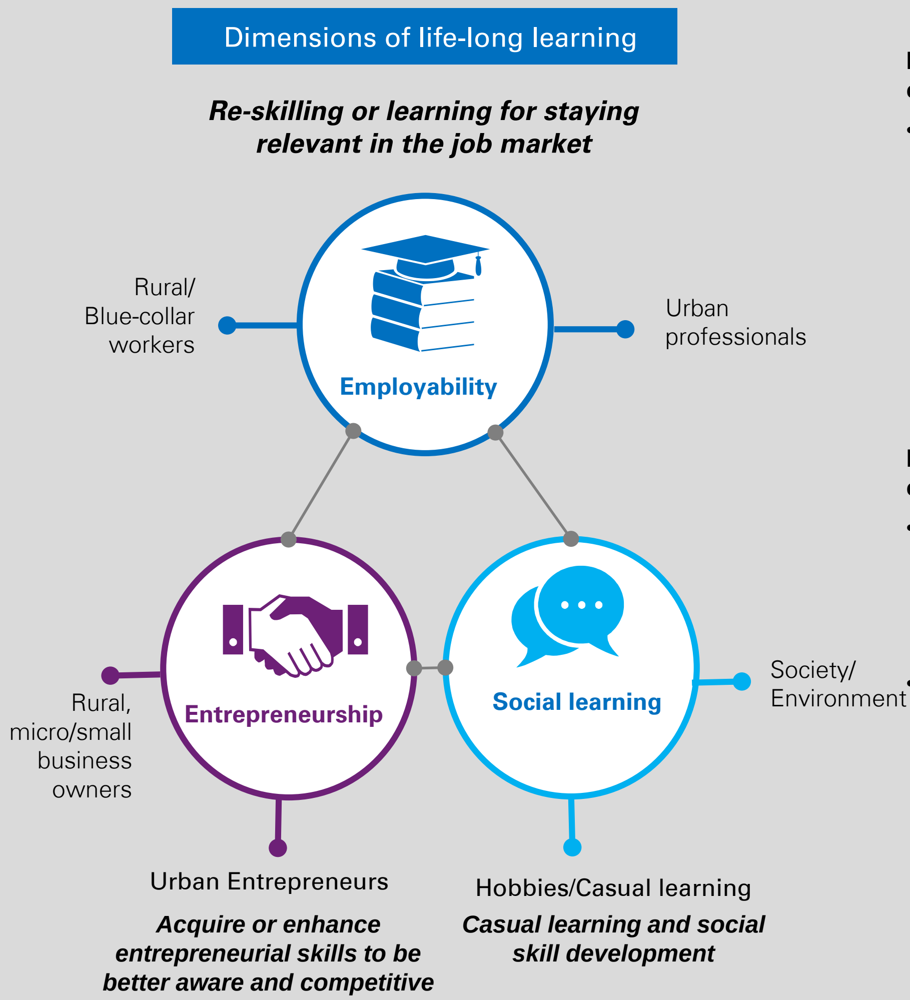
Sources:
[105]- KPMG in India's research and analysis 2017

Online education will evolve the concept of continuous learning

Online education has reduced the age constraint for learning. Individuals across age groups have the opportunity to conveniently work on knowledge improvement and skill building activities, for personal and professional applications form anywhere, at anytime, which has given impetus to the concept of continuous learning.

Continuous learning gains further importance in today's fast paced knowledge based economy, with rapid advancement in terms of technology and a regular need for newer skills and competencies. It encompasses learning across formal, informal and non-formal learning. Improvement of the skills and abilities of the workforce also has far reaching consequences in strengthening the country's economy.

Continuous learning can be understood through three different aspects: employability, entrepreneurship and social learning. Each dimension could be further classified by the type of learner or interest levels.



Professional and urban entrepreneurs

- Professionals and urban entrepreneurs, with higher disposable income and awareness about the online medium, could be directly targeted by the online platforms. These learners will look at re-skilling or up-skilling in order to succeed in the organised job market. Monetization of product offerings from this target group could be higher than other potential learners

Blue-collared and rural entrepreneurs

- Blue-collar workers and rural entrepreneurs (small business owners, farmers, etc.) can be connected through alliances with existing channel owners
- For instance, leading FMCG companies have started multiple programmes to empower rural entrepreneurs. Partnering with such companies could offer access to a new market, with a B2B business model. Courses offered to rural entrepreneurs can range from business accounting, supply chain management to market intelligence and data analytics

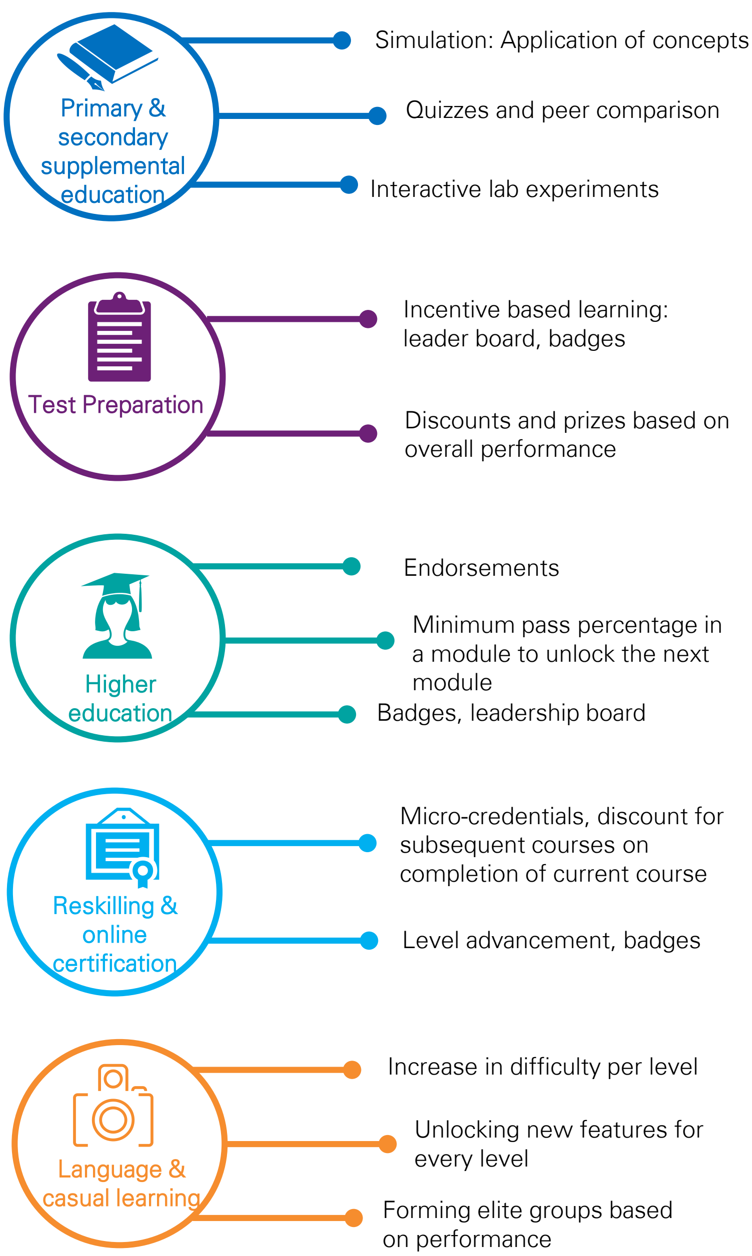
Source: KPMG in India's research and analysis 2017

While the market for casual learning may continue to grow among urban internet users, social learning may not see immediate consumer demand. This content could be employability and entrepreneurship related courses.

The concept of continuous learning has already been partially employed through multiple business models, focusing on different stages of education of an individual. However, the opportunity remains in exploring new modes of delivery which are relevant to a consumer segment and online education channel will be critical to enhance this opportunity.

Application of gamification concepts across various categories of online education will drive higher engagement levels

Potential use-cases of Gamification



Source: KPMG in India's research and analysis 2017

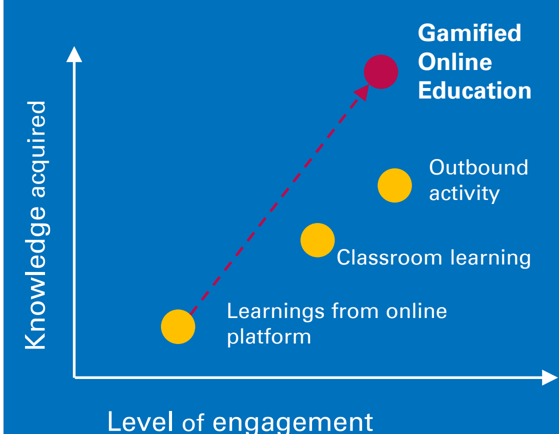
Gamification is the practice of applying game mechanics of fun, collaboration, competition and rewards in non-game situations.

It is currently employed worldwide for enhancing the engagement of learners across different stages of education, including formal education and training. The global market for gamification in education is estimated to reach USD 10 billion by 2020.[106]

Gamification has started to gain popularity among education service providers in India. One of the players in the primary & secondary supplemental education space has recently launched an application which combines games, simulations and videos to train children. Several other technology leaders are entering the space to create a solution for enhancing engagement and learning experience for the students.

Gamification has gained success through usage of key gaming principles and application oriented learning, hence enhancing the learner's engagement levels. Nearly 95 per cent students drop-out from MOOCs.[107] Gamification has the potential to make the process of learning interesting and hence address the issue of high dropouts in online learning.

Engagement-learning matrix of different education methods



Source: KPMG in India's research and analysis 2017

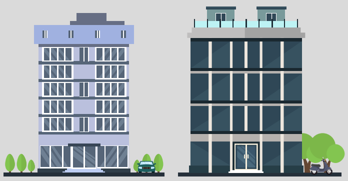
Sources:
[106], [107]- KPMG in India's research and analysis 2017

Evolution of business models based on changing customer requirements

Peer to peer learning

Consumer to consumer

- The online channel has been increasingly gaining acceptance amongst the student base in India. This network of students can interact with each other by sharing notes, ideas and engaging in constructive dialogue on a common platform
- Many P2P based start-ups are emerging in the online education space, especially in the K12 and reskilling and certification space.



Business to business

- Online platforms can act as enablers to provide an enriching learning experience through integration of similar academic institutions along with the teachers and students
- In case of primary and secondary education, this will stimulate parental engagement and overall development of the student
- Recently, an Indian start up created a network for central government schools by bringing on board over a million students.

Co-developed Content

The online education ecosystem will witness collaborations between platform providers and corporates in the future.

- The online players could partner with the industry to co-develop content that is relevant in the present job market
- Reskilling and online certifications & could see employment offered to certified students. This could be facilitated by corporate partnerships in relevant industries.

Value added services

Industry collaborations provide an opportunity to offer unique value added services to the students. These could be in the form of:

- **Internship opportunities**
  Platforms could offer internship opportunities to high-performing students. These internships could be designed along with the industry partners.
- **Short-term assignments and live projects**
  Online education players could have industry experts to design live projects for students. Industry players can assign short term assignments to students which will enhance the overall learning process and provide the required practical experience.

Technological innovations in the eco-system for supply and demand will lead to customization of course content and delivery mechanisms

Technologies used by online platforms today include leaning management systems, linear learning, collaborative learning etc. These technologies provide an enhancing experience to students, there is scope for innovation in the online education space. The potential of technologies such as Virtual Reality, wearable devices and facial recognition have not yet been realized by platforms. Going forward, these technologies will find application across various touch points in the customer lifecycle to enhance the learning experience.

Technological innovations (Demand)

Discovery

Artificial Intelligence

- Platform to provide profile-based customised course suggestions to prospective students
- AI to enable students to make an informed choice on course content, type of course and course duration.

Payment

Big data: *Users create digital footprints via interactions with the platform which are captured by the system to map their profiles.*

Data analytics: *Platforms could map user profiles with relevant courses based on past usage or academic/professional background and drive purchase behaviour.*

Consumption

Wearable devices: *Wearable devices have the potential to act as innovative media of content consumption.*
Virtual labs: *Virtual labs can enable students to perform experiments. This would enable platforms to widen their offerings to include courses involving a high practical component.*

Course completion

Facial recognition: *Feedback on courses can be obtained using facial cues captured during the course delivery.*
Machine learning: *A detailed feedback is given by the platform to the user with high level of accuracy, time spent, historical performances etc.*

Technological innovations (Supply)

- **Content development and curation using 3D technology:** Although 3D technology currently witnesses application in the industry, the availability of such content is on the lower side. Going forward there could innovative applications of this technology. For example, in case of C2C learning, platforms could provide students access to 3D tools to enhance peer to peer learning.
- **Drones:** Courses involving soft skills learning such as leadership and team building can be taught online through innovative videos such as recordings of outdoor activities of a group undergoing trainings/workshops and using that as a demonstration to impart knowledge online
- **Big data and Artificial Intelligence**: Platforms could gather data from user search queries and derive insights from the same to constantly improve designs of product offerings.

- **Cloud based data storage:** Data would be stored on cloud which can be accessed by students from any device, anytime. Students can also share content anytime which can be accessed by their peers. Students from different geographies can also collaborate on projects/assignments leveraging cloud technology.

Source: KPMG in India's research and analysis 2017

Key takeaways

Online Education in India: 2021 - Key takeaways

Market size highlights

The current USD 247 million online education market is poised to grow at a CAGR of 52 per cent to become a USD 1.96 billion market in 2021. Reskilling and Certification is the largest category today at USD 93M and will grow to USD 463M driven by the need for professionals to continuously reskill to stay relevant in the job market. Primary and secondary education category, currently at USD 73 million, is likely to grow ten fold to USD 773 million by 2021. Primary and secondary education category has the largest addressable audience with a student base of around 260 million when compared to the other categories. Going forward, test preparation is likely to grow the fastest by 2021 at an impressive CAGR of 64 per cent to become a USD 515 million category.

Consumption behavior highlights

The intrinsic characteristics of online medium are the key motivational drivers for students to adopt online education across categories. Students count convenience, ease of concentrating at home and reduced travel time as their top reasons for pursuing online courses. Laptops are the preferred device for access of online content followed by smartphones. Content pricing, availability of employable opportunities & connectivity are the key challenges faced by students adopting online education. The strongest influencers of brand awareness are peers followed by Internet searches and advertisements. Brand selection is mostly dependent on the quality of content provided by the organization. Availability of variety of content format and courses at affordable prices and flexibility of start/end time influence usage decisions.

Future outlook for online education players

High customization in content delivery, assessment and result analyses will be instrumental in driving competitive differentiation among players. Going forward, availability of comprehensive content at affordable prices to students will be important for increased adoption. Engaging customer experience through potential use of gamification might be required to increase customer retention. Moreover, provision of value add services such as career counselling and soft skills development will be important to differentiate the brands. A multi-device offering and offline touch points for certain categories will enable greater awareness of players among users.

Annexure: Primary Research Methodology

Methodology

1. Market revenue estimation: The volume estimate for 2016 is based on the number of internet users in India, unfulfilled need for education across categories, number of offline users of a category and adoption of online learning in major categories. The volume estimates for 2021 are based on standards of potential changes in the regulatory scenario and the projected rise in internet penetration in India. Revenue in Indian market for 2016 is based on per cent of paying customers and the average transaction value for the paying base across key categories. The estimates were further triangulated through reported financials of key players across major sub-segments of the Indian online education market. The 2021 market revenues have been projected based on the expected rise in average transaction value, enabled by projected rise in disposable income, inflation and consumer spending along with change in per cent of paying customers based on potential rise in acceptability of the online channel.

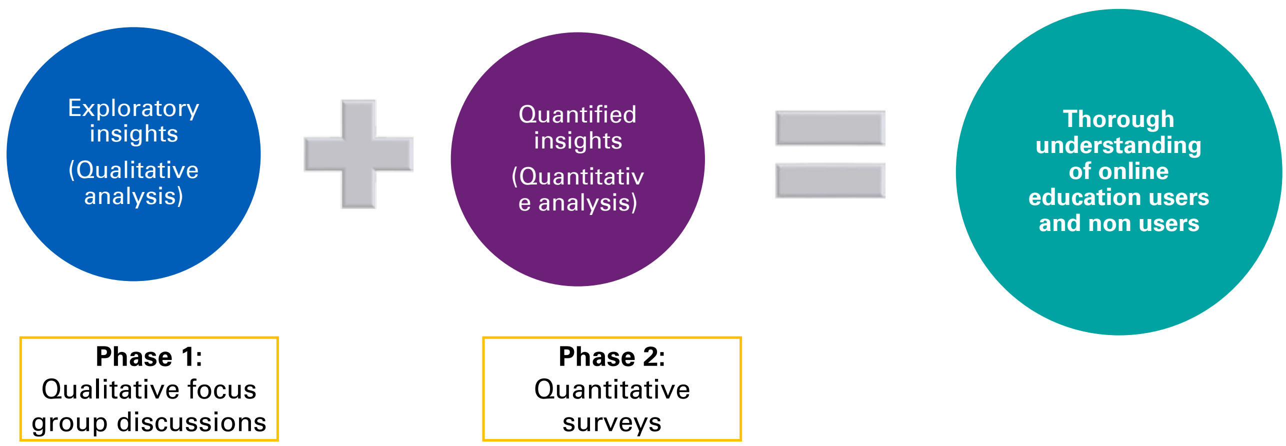
Sources

1. **Primary research**
   a. Discussion with industry experts and key players conducted by KPMG in India
2. **Secondary research**
   a. Annual reports of leading players in the industry
   b. Reports published on the Indian education system, published by the MHRD and third party sources
   c. Industry journals and magazines
   d. Company press releases

Annexure: Primary Research Methodology

Objective of the research:
To understand the perception and awareness of the masses towards online education
Understand preference towards online or offline education on the basis of drivers, barriers, preference to teaching methodology, payment options, etc.

Research methodology:
This study, was performed in multiple stages:



PHASE 1: QUALITATIVE ANALYSIS
Qualitative research was undertaken to analyse key triggers, barriers and perception among online and offline users

- **Methodology**: Five focused group discussions with five to six respondents in New Delhi, India
- **User segments covered:** Users opting for higher education (online)- females, Users opting for higher education (online)- females, users for online certification courses- males, group of offline users- males, primary and secondary education users (offline)- females, vocational training users (offline)- females

PHASE 2: QUANTITATIVE ANALYSIS VIA ONLINE SURVEYS
Based on inputs from Phase 1, a quantitative survey was conducted to gauge different aspects of consumer behaviour across online users, offline users and intenders of online education.

- **Methodology :** Around 3600 participated in online surveys conducted across four regions- North (Agra, Chandigarh, Delhi, Jaipur, Kanpur and Lucknow), East (Guwahati, Kolkata, Patna, Ranchi), West (Ahmedabad, Bhopal, Mumbai, Nagpur, Pune, Surat, Vadodara) and South (Bangalore, Chennai, Coimbatore, Kochi, Hyderabad, Madurai, Thiruvananthapuram, Vijayawada, Vishakhapatnam). Interviews were limited to a time duration of 15 to 20 mins, with a maximum of 25 questions per interview, including screening questions.
- **User segments surveyed:**

Age groups	Gender	Categories	Users
15 to 18 years	Male	Primary and Secondary Supplemental Education- 608 respondents	Online
18.1 to 22 years	Female	Test preparation- 587 respondents	Offline
22.1 to 25 years		Higher education- 602 respondents	Intenders
25.1 to 30 years		Reskilling and online certifications- 1209 respondents	
30.1 to 40 years		Language and casual learning- 602 respondents	
40.1 to 45 years			

Belonging to SEC A1/A2/A3 categories

Glossary

Term	Definition
B.Ed.	Bachelor of Education
B.Sc.	Bachelor of Science
B2B	Business to Business
B2C	Business to Consumer
BA	Bachelor of Arts
BBA	Bachelor of Business Administration
C2C	Consumer to Consumer
CA	Chartered Accountant
CAGR	Compound Annual Growth Rate
CBSE	Central Board of Secondary Education
FI	Financial Institution
FMCG	Fast Moving Consumer Goods
GMAT	Graduate Management Aptitude Test
Govt.	Government
ICSE	Indian Certificate of Secondary Education
IOT	Internet of Things
LLB	Bachelor of Laws
LLM	Master of Laws
M.Com	Master of Commerce

Term	Definition
MTech	Master of Technology
MA	Master of Arts
MCA	Master of Computer Application
MD	Doctor of Medicine
MDS	Master of Dental Surgery
Metro	Centre with a population above 1 million residents
MOOCs	Massive Open Online Course
MS/Ms.	Master of Science
O2O	Online to Offline
OEM	Original Equipment Manufacturer
PG	Payment Gateways
SCM	Supply Chain Management
SEM	Search Engine Marketing
SEO	Search Engine Optimization
tier 1	Centre with a population above 100,000 residents
tier 2	Centre with a population between 50,000 and 99,999 residents
tier 3	Centre with a population between 20,000 and 49,999 residents
TV	Television
UGC	University Grants commission
UPI	Unified Payment Interface
VAS	Value Added Service

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