

# Factors influencing Consumer’s choice of e-learning services: An exploratory study

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## Abstract:

The prevalence of e-learning has surged worldwide since the outbreak of the coronavirus. Online education has become an integral part of people’s lives both personally as well as professionally. The education sector has been riding the platform of e-learning and expanding its reach to the masses. The e-learning tools like learning management systems, online learning platforms, etc., have come in handy for universities, institutions and schools to cope with the long session breaks they were forced to have due to the gripping menace of the pandemic. Thus, it has become imperative to gauge the consumer intent for selecting such services. Keeping this in mind, the present study has been undertaken. This study explores the factors that are considered by customers while opting for online education. Besides, the study focuses on unearthing the benefits an online education service should provide to the consumers to achieve better enrolment rates and improve the overall perception & attitude of the customers towards the online education. It has used primary as well as secondary data to arrive at conclusions. The study identified cost-effectiveness and convenience as major criteria influencing consumer’s choice for e-learning services. Moreover, the study has practical implications for the corporates who are working in the arena of marketing of e-learning services.

**Keywords — e-learning, consumer behavior, online education.**

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## I. INTRODUCTION

The COVID-19 outbreak has brought an unexpected turn in the routines of people across the globe. Companies across multiple industries and sectors are facing the brunt of this pandemic. The education sector also got its share of complications and distortions but fortunately, it was able to come up

with an effective response. This effective response is the result of the sequential process which involved forced and random adoption of existing tools of e-learning, the emergence of new tools and technologies, and then the meticulous customization of these tools to the nth level. Hence, the e-learning industry witnessed a number of significant changes that fueled its growth.

Global trends and forecasts for the e-learning segment paint a positive picture for the industry as well. According to a report by Global Marketing Insights 2020, the size of the global e-learning industry exceeded USD 200 billion in 2019 and is projected to rise at over 8 percent CAGR between 2020 and 2026. Parallely, the Indian environment seems to provide strong support for e-learning services, and customers' responses have only strengthened the forecasts done so far. According to the IBEF Report Indian Education Sector in India Industry Report (November, 2020) India has become the second-largest market for e-learning after the US. The report further highlighted that this sector is expected to reach US\$ 1.96 billion by 2021 with around 9.5 million users and US\$ 8.6 billion by 2026.

Given the progressive forecasts, the market for e-learning services seems to be a lucrative opportunity to tap, from the industry perspective. Companies providing services in this industry are motivated to work on their offerings to capture the market and benefit from this rapidly growing sector. Further benefits like convenience, cost-effectiveness, innovation, etc., has encouraged students to opt for them. For instance, e-learners ingest information in smaller, more digestible chunks, making it easier to memorize details and grasp concepts. Hence it makes learning easy. In addition to this, the forceful reinforcement and trial of e-learning services during these pandemic times have added to its popularity among knowledge seekers. Thus, in order to tap the market more effectively, it has become really important to study the consumer intent for selecting such services. Keeping this in mind, the present study has been undertaken. The motive of the study is to analyze the factors that affect consumer's decision to sign up for e-learning services. Overall, the study aims to provide a prescriptive insight into the e-learning sector and consumers' minds.

The study is organized in the following manner: Section 2 presents a review of the literature on the subject. Research objectives and research

methodology are described in Section 3. Section 4 focusses on the data analysis and findings of the survey conducted. Section 5 provides conclusion and recommendation. Section 6 highlights the way forward.

## **2. Literature review**

E-learning is one of the fastest-growing industries and so, there have been many research studies that have analyzed this industry, it's the market scenario, consumption patterns, consumer behavior, etc. However, the research studies that focused on student's motivation behind enrolment in an online educational service, their acceptance of technology and it's intent and extent have been considered for research gap analysis.

### **Factors affecting the e-learning scenario**

Various research studies have been conducted by researchers to examine different factors that affect the e-learning scenario in current times. One of the most recent studies was undertaken by Sruthi and Mukherjee (2020). The study attempted to find out the extent to which BYJUS app promotes learning. The factors considered in this study were the penetration of the app among students, reach, attractiveness, ease of use, subject focus, effectiveness, and personalized learning. It was found out that visual media advertising, such as television and emerging media such as the internet, helped the app reach a broader audience base. Moreover, the respondents also found the app to be interactive, effective and easy to use. Also, Fernandes (2019) examined the performance indicators that contribute to the effectiveness of BYJUS courses. The findings of the study established that creating a new segment of self-paced learners and active learners where students can take the initiative and learn on their own makes it possible to incorporate content, media, and technology that draws the attention of students. Likewise, a study on consumer perception regarding online learning programs by Sembring (2018) analyzed the

determinants of the efficient online tutoring program. These findings indicate that most respondents believed that the tutoring strategy, particularly the style, was able to encourage students to be more involved in cooperative learning, induced discussion among them, and motivate them to search for relevant academic sources. Another study by Ansari (2017) explored and analyzed the usefulness of mobile learning technologies in higher education in India. This study also assessed the role of mobile learning apps in student life. The findings revealed the importance of mobile learning apps for higher education. The study further emphasized the ability of mobile learning apps to overcome time, location and distance barriers by providing learning experiences within their convenience. Similarly, the perception of students for e-learning was studied by Mamattah (2016). The study focused on the students' perceived view regarding the understanding of e-learning services, its ease of usage, perceived benefits of e-learning services, their attitude towards e-learning services, and the acceptance of e-learning certificates by employers. The study concludes on a positive note stating that the students' attitude toward e-learning services was found to be positive and the e-learning service was perceived by them as useful. Yet another study by Diwanji and Simon (2014) examined the factors contributing to the success of online learning videos. The findings indicated that shorter videos are more appealing than the longer ones. Also, the authors quoted that the instructor speech rate influences video interaction.

### **Consumer motivation for e-learning services**

There have also been constant efforts to understand consumer intent, motivation and influential factors that affect consumer's decision of signing up for e-learning services. One of the major influential factors recently is the current pandemic scenario wherein the student and educational institutional communities have to adopt online learning as the primary mode of education. A study by Radha et al., (2020), examined student's attitudes towards e-learning during the Covid-19 pandemic. The study

highlighted that the consumers adapted to the online learning systems. The study brought out the students' satisfaction level and their perception of e-learning in the era of the pandemic. Most of the students showed willingness towards learning through e-learning platforms, perceived these services to be beneficial and showed an overall positive attitude towards this change. Further, Subhashini et al., (2019) worked on motivational factors influencing professionals to enroll in online courses and categorized the consumer intent to enroll in online courses by age. The respondents belonged to the age group of 20-50 years and their intent ranged from gaining knowledge to getting a raise or promotion. Similarly, Cullum (2016) studied student motivation and intent to take online classes and proposed that understanding students' intent of enrolling in online courses will help higher education institutions to offer better educational services. The research further suggested that the behavioral intent of the consumers to take up online courses can be predicted by analyzing performance expectancy, social influence and other facilitating conditions. Another study by El-Seoud et al., (2014) studied the effect of e-learning on higher education and found out that one of the important factors in the success of e-learning is the self-motivation of students that can be increased with digital support. They also concluded that training of teachers and even students in adopting the technological advancements in the learning process, and effective delivery of the services also contribute to the effect of online learning on higher education and the impact it has on students. The intent of consumers to sign up for MOOCs has also been one of the main focal points for researchers. Moreover, Hakami et al., (2017) carried out a systematic literature review of the studies related to the motivations that drive individuals to use MOOCs. The study classified the identified factors into four dimensions related to learners, institution & instructor, platform & course and perception of external control. Also, Barak et al., (2015) examined how language and social engagement aspects affect the motivation to learn through MOOCs. The study concluded that even

though the language of instructions or the course may be different in different countries/cultures, yet the intrinsic motivation to enroll in such programs remains the same. The study categorized the types of students who enrolled in MOOCs and their behavior during the learning process. The study found out that individuals who completed the MOOCs had more efficacy and self-confidence than non-completers.

The study of the literature reveals that the researchers have explored the e-learning services across various modes- apps, MOOCs, other online courses etc. Numerous aspects of e-learning services like their usefulness, performance indicators, efficiency, and student satisfaction have been examined. However, there is a dearth of studies on the marketing front that can have direct implications and applicability for the service providers. Even the studies that talk about the motivation of the consumers towards e-learning services treat it as an internal trait of a learner's personality or as a means of achieving certain goals. Thus, the factors those apply directly to the marketing of e-learning services and could be built into the service offerings need to be discovered further.

investigated through the framing of the questionnaire and implementing the survey. The questionnaire aimed to capture the responses of the students on diverse aspects of e-learning specifically concerned with the arena of marketing.

The questionnaire was designed in English and the survey was conducted on 70 respondents using the convenience sampling method. The respondents included both students and parents. The school and college students (in and around Delhi) who had subscribed for e-learning services by paying for them at any point of time in their lives were chosen for the survey. Parents were also part of the survey as in many cases the purchase decision lies on them. Hence the sample had a mix of students and parents belonging to varied age groups and diverse interests. The questions included in the questionnaire had a varied format. This was done to capture the information required to fulfill the framed objectives. MCQs, dichotomous questions, and questions based on a five-point Likert scale were used. Open-ended questions were also used to elicit unbiased responses. Data collected through the questionnaire was analyzed using MS-excel and SPSS.

### 3. Research Objectives & Research Methodology

#### Research Objectives:

- To identify factors influencing consumer's choice of e-learning services
- To pave a prescriptive path for the e-learning industry based on the forecasts and the survey, with the sole purpose of increasing their enrollment rates.

#### Research Methodology

This study used a research design comprising of mixed methods wherein both qualitative and quantitative techniques were applied. The analysis of existing literature on the topic helped to frame the research objectives. The literature review also helped in filtering out the factors which were further

**Independent variable** (Influencing consumer's choice of e-learning services) - Cost-effectiveness, Convenience, Existence/use of innovative features, Tutors with high credentials and Brand value  
**Dependent variables**- students signing up for paid e-learning services

### 4. Data analysis and Findings

The survey was conducted through google forms in the month of July'2020. Data collected through the questionnaire was analyzed using simple statistical tools like percentage, mean, standard deviation and ANOVA.

**Demographic Analysis**

Table-1 shows the categorized data of the respondents based on their income and decision-making role in the purchase of the online learning services. This table provides the insights that percentage of students is more than parents as far as the decision making is concerned. Figure-1 shows the percentage of respondents based on their category.

**TABLE 1: Demographic Details**

Income Categories	Percentage
3-5 lac	65.7
6-10 lac	15.7
11-15 lac	12.9
16 lac and above	5.7
Decision makers	Percentage
Students	84.3%
Parents	15.7%

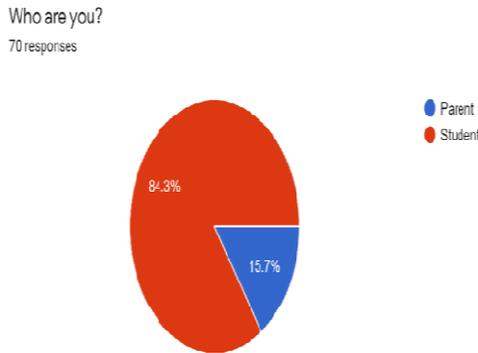


Figure-1: Category of respondents

**Descriptive Analysis**

Table-2 shows the descriptive statistics for the factors influencing consumer’s choice of e-learning services namely- Convenience, cost effectiveness, innovative methods of teaching, the existence/use of innovative features, tutors with high credentials and brand value. The mean and standard deviation for these factors were computed. The mean scores were in the range of 3.54 - 4.19. In particular, the mean

score for the factor-‘Convenience’ was found to be highest ( $M=4.19$ ) followed by the mean score for ‘Cost effectiveness’ ( $M=4.17$ ), Existence/use of innovative features ( $M=4.13$ ), Tutors with high credentials ( $M=3.70$ ) and Brand value ( $M=3.54$ ). Thus, suggesting that three factors-‘Convenience’, ‘Cost effectiveness’ and ‘Existence/use of innovative features’ were found to be more attractive than other factors.

**TABLE-2: Descriptive Statistics**

Factors influencing consumer’s choice of e-learning services	N	Maximum	Minimum	Mean	Standard deviation
Cost effectiveness	70	5	3	4.17	0.80
Convenience	70	5	2	4.19	0.80
Existence/use of innovative features	70	5	2	4.13	0.85
Tutors with high credentials	70	5	1	3.70	1.07
Brand value	70	5	1	3.54	1.06

**Effect of Demographic variable-‘Income’ on the attractiveness level w.r.t each factor influencing consumer’s choice of e-learning services**

This section examines the effect of demographic variable-‘Income’ on the attractiveness level w.r.t each factor influencing consumer’s choice of e-learning services. The mean values were calculated for the attractiveness level w.r.t each factor in case of groups categorized based on ‘income’ (Refer Table-3). The null hypothesis, in this case, is that there is no significant difference in the attractiveness level w.r.t each factor between different groups categorized on the basis of ‘income’. Even though there were differences in the mean values, a statistical test was needed to determine their

significance. ANOVA one-way technique was applied for this purpose. ANOVA results (Refer Table-4) show that there is no statistically significant difference between groups created on the basis of ‘income’ as demonstrated by one-way ANOVA (the value for F is more than 0.05). This implies that the level of attractiveness level w.r.t various factors do not vary across customers of various income groups.

**TABLE 3: Mean values of the factors influencing consumer’s choice of e-learning services based on their income categories**

Factors influencing consumer’s choice of e-learning services		N	MEAN	STANDARD DEVIATION
<i>cost effectiveness</i>	3-5 Lac p.a	46	4.24	0.79
	6-10 Lac p.a	11	3.91	0.83
	11-15 Lac p.a	9	4.22	0.97
	16 Lac and above	4	4.00	0.00
	<b>Total</b>	<b>70</b>	<b>4.17</b>	<b>0.80</b>
<i>Convenience</i>	3-5 Lac p.a	46	4.09	0.78
	6-10 Lac p.a	11	4.27	1.01
	11-15 Lac p.a	9	4.56	0.73
	16 Lac and above	4	4.25	0.50
	<b>Total</b>	<b>70</b>	<b>4.19</b>	<b>0.80</b>
<i>Existence/use of Innovative features</i>	3-5 Lac p.a	46	4.09	0.86
	6-10 Lac p.a	11	4.27	0.79
	11-15 Lac p.a	9	4.44	0.73
	16 Lac and above	4	3.50	1.00
	<b>Total</b>	<b>70</b>	<b>4.13</b>	<b>0.85</b>
<i>Tutors with high credentials</i>	3-5 Lac p.a	46	3.59	1.00
	6-10 Lac p.a	11	4.00	0.89
	11-15 Lac p.a	9	4.67	0.71
	16 Lac and above	4	2.00	0.00
	<b>Total</b>	<b>70</b>	<b>3.70</b>	<b>1.07</b>
<i>Brand value</i>	3-5 Lac p.a	46	3.43	1.03
	6-10 Lac p.a	11	3.55	1.13
	11-15 Lac p.a	9	4.44	0.73
	16 Lac and above	4	2.75	0.96
	<b>Total</b>	<b>70</b>	<b>3.54</b>	<b>1.06</b>

**TABLE 4: ANOVA for testing the ‘the impact of income’ on attractiveness w.r.t to each factor influencing consumer’s choice of e-learning services**

		SS	df	MS	F	P-value
<i>cost-effectiveness</i>	Between Groups	359.5162	1	359.5161654	1.944942	0.212580105
	Within Groups	1109.081	6	184.8467539		
<i>Convenience</i>	Between Groups	348.939	1	348.9389916	1.887664	0.218583413
	Within Groups	1109.114	6	184.852273		
<i>Existence/use of innovative features</i>	Between Groups	360.4058	1	360.4058305	1.949006	0.212163173
	Within Groups	1109.506	6	184.9177248		
<i>Tutors with high credentials</i>	Between Groups	388.4573	1	388.457316	2.094387	0.197992589
	Within Groups	1112.853	6	185.4754319		
<i>Brand value</i>	Between Groups	389.5583	1	389.5582718	2.104861	0.197024651
	Within Groups	1110.453	6	185.0755277		

### Role of e-learning services in student’s performance improvement

In order to capture student’s belief regarding improvement in student’s performance with the aid of e-learning services, their responses were collected and analyzed on this aspect. Figure-2 shows that 72.9% of the respondents believe that e-learning services improve student’s performance. This finding highlights that this belief is one of the reasons of recent popularity of e-learning services amongst students.

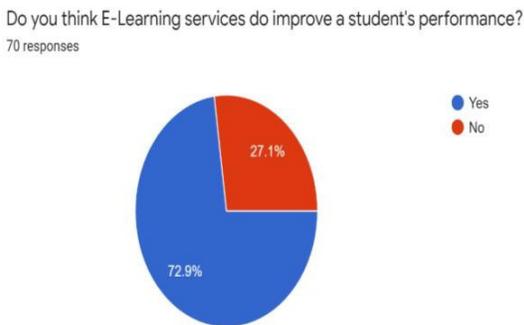


Figure-2: Improvement in student’s performance with the aid of E-Learning service

### Comparison between E-Learning services and In-person teaching

Though online teaching is considered to be convenient and helpful in improving a student’s academic performance yet the preference for offline teaching over online teaching was prominent, as can be seen in Figure-3 that about 78.6% of the respondents feel that e-learning services are not better than in-person teaching. This research finding is in alignment with the observations in the previous literature that emphasized that the factor of “human touch” increases the credibility in education sector and needs to be worked upon by online service providers for better delivery of services.

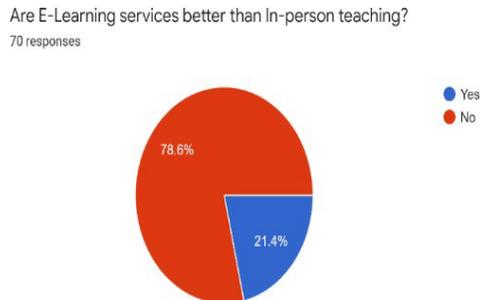


Figure-3: E-Learning services as compared to In-person teaching

## 5. Conclusions and Recommendations

The present study provides rich insights into the e-learning industry and also identifies key factors influencing consumer’s choice of e-learning services. The major research findings have been summarized below:

1. Convenience was found to have the highest mean score value. This depicts that the convenience factor has a lot of significance in context of online learning. Online learning is easily accessible mode of learning as it goes beyond the geographical and physical boundaries (Dhull and Sakshi, 2017). E-learning service provides convenience to people, whether they are working professionals, students or parents. Students opt for e-learning services to keep up with their scheduled work if they are working or are enrolled in a regular program. Parents like e-learning services as it saves commuting time for their kids and provides a sense of mental balance and enables them to give proper care to their kids. E-learning services are also used by working professionals who just want to learn new skills or enhance their knowledge. The convenience factor of such services brings in extra time in hand which is appreciated by many consumers. These results are in

congruence with the previous studies (Ansari 2017; Cullum, 2016). Thus, the online learning services must integrate synchronous and asynchronous modes to provide greater convenience and flexibility to their customers.

2. Educational services, offline or online, are important for personality development and knowledge build-up. Despite its significant role in our lives, when it comes to paying for such services, everyone does a good analysis of their budget. The results depicted that the cost-effectiveness factor was meticulously taken into consideration while going for paid online services. Students who find it unaffordable to access campus or universities opt for distance education (Appanna, 2008). Hence, it is fair to expect that the students will compare the prices of various online services while subscribing to them. The results of this study confirmed the same. Therefore, the online services provider must take care of the cost of enrollment/ fees while designing the offering.
3. The results of the study indicated a desirability of innovative features in reference to the online learning platforms. Since the present study covers a wide range of online learning services like apps, MOOCS, online classrooms etc. there is an extensive scope of innovations in services delivery. Instructors have a wide range of options -like breakout rooms, whiteboards, live chats, online polling, using discussion boards etc. to choose from. Some of these innovations are platform dependent as well. According to Weller et al., (2005), when internet based innovative technologies was introduced in a course curriculum in UK Open University, the student's feedback was positive. Hence, students whole heartedly welcomed these innovations. Online learning

services must try to bring in new technological innovations to attract the students.

4. The study indicated the desirability for a tutor/ instructor with high credentials. This research finding is in congruence with the results of a previous study by Sultan and Shafi (2014) which established that the teacher's competence had a significant impact on student's performance. Hence, it is recommended that the online platforms for learning must engage faculty/instructors with good academic background preferably having a proven track record/name in the academic world. Though the competence of the instructor matters for both online and offline education modes, it gains more weight in online learning environment because they are the major part of service delivery and in some cases the only human interface in the whole service delivery. Thus, they are incidental in giving assurance and build rapport with the students.
5. The present study indicated that the students pay attention towards the brand value of the online education services while subscribing for them. Similar results were shared by a study Ngo and Ismandoyo(2018) which revealed that the student's decision to enrol in a course is affected by the brand image of the education service provider/institute. Therefore, the online services provider must invest in building a strong and trustworthy brand name in order to increase its marketability.
6. Preference for offline classes- 72.9% of the student respondents felt that online learning can improve student's performance but when probed further these people said that online learning cannot replace in person

teaching/offline classes. The respondents also agreed to the fact that online teaching is convenient, time-saving, provides tools for interaction, and is responsible for student development, respondents, still marked its importance lower than the offline mode of teaching. The reason for this is the presence of more human connects in the offline mode compared to the online one. Hence, the e-learning services must provide added tangible cues and more opportunities for student tutor interaction. The hybrid mode in which offline interaction at regular intervals can be arranged for to supplement the online learning mode. This also reiterates the significance of engaging a skilled faculty with a sound academic background.

7. The findings of the study suggest that students are more empowered to make decisions. Thus, the companies should target this section with more enthusiasm and fit their criteria of the best e-learning service available in the market. Catering to the students efficiently will undoubtedly help in boosting the enrollment rates as well.
8. The results also suggest that the consumer's income does not have any significant impact on the level of attractiveness w.r.t each factor influencing consumer's choice of e-learning services. The general thought process of the consumer while enrolling in an online educational service is similar and remains unaffected by the income groups they belong to.

Thus, these factors must be taken into consideration while designing service offering for an online services provider. Navigating and then building up these consumer preferences into the marketing strategy would help in increasing the subscription rates for online services. Based on the research

findings, these recommendations are suggested for the e-learning industry to increase the enrollment rates and navigate consumer preferences accordingly. These suggestive measures would not only increase market penetration but will also help in better business development for the companies operating in the industry. Overall, the present study accounts for the significant factors influencing consumer's choice of e-learning services. Moreover, the study provides valuable insights into consumer's intention that can help e-learning companies in improving their product offering, mode of delivery and other aspects. The study contributes to the existing strand of knowledge by being more marketing oriented and practically applicable. The backdrop of the Indian context further elevates its relevance and aptness.

## 6. The Way Forward

The present study provides a prescription to the companies operating in this sector regarding the do's and don'ts while targeting consumers and the areas of improvement. Moreover, the study is focused on consumer preference while opting for a service provider at the time of purchase which was not explored in previous researches. The previous researches were more focused on the general attitude of consumers towards e-learning services, their acceptance of it, and what they expect of it, while the present research study aims at finding factors that weigh in the minds of consumers while making the purchase. Though this research has contributed as a prescriptive analysis of the industry, further detailed research can be done on these factors. Since the factors taken into consideration in this study were predetermined, exploratory research on other non-apparent factors can provide strong support to the prescription laid by this study.

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