

Analysis of Customer Perception on Education Through Ed Tech Platforms

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CHAPTER 1

Introduction

Most global institutions opt to use synchronous and asynchronous online teaching methods: synchronous is where faculty and their students meet in a pre-scheduled time as a part of interactive learning classes, while the asynchronous method refers to the Faculty giving the course without interaction with the students. There is no interaction between the faculty and students. Asynchronous modes of online learning suit students to access online material whenever they like. Faculty are the role players in making learning enjoyable, shaping students' attitudes and personalities, and helping students pass. COVID-19 spreads online learning culture across the culture. COVID-19 forced the shift to online learning, but some universities in underdeveloped countries are not adequately equipped to teach online efficiently. Moreover, the faculty's training is different globally between high-income, middle, and lower income countries. Another major obstacle is the Internet connectivity for underprivileged students. It is a de facto that face-to-face instruction is more efficient than online and the complete shift to online during COVID-19 makes it necessary to investigate the perception of faculty and students on online learning to identify the advantages and disadvantages, and challenges of online learning.

The impact of online learning has been significantly observed on faculty members and students in particular. Teaching and learning online has a wide range of advantages, yet poses some challenges. It makes the process of learning for students' comfort due to time flexibility in attending classes. However, online learning acts as a barrier to the engagement of students in real class activities. Moreover, students lack the influence of peer learning. These challenges also leave an impact on student's personalities and prevent them from taking their turns. Additionally, the faculty's role is to teach, monitor, and provide advice for students on both academic and personal levels. The pandemic has shown the role of online education in

coping with abrupt crises, and therefore it is significant to understand student's perceptions concerning online classes.

For thousands of years, education and training that displayed within a triangle of school-teacher-student has now utilized new, multifaceted, multi-channel alternatives with the help of technologies in the education system. One of them is "online learning."

The term "online learning" is used in this paper to refer to distance learning happening via online mode. The term not only encompasses full-fledged formal online courses, the so-called Massively Open Online Courses (MOOCs), but also supplementation of regular classroom learning with online content dissemination and interaction, the so-called flipped classroom or blended mode.

Online learning is a core component of our stride towards achieving No. 4 of UN Sustainable Developmental Goals (UN-SDGs), quality education. While "quality education" itself is abstract and it has many meanings, facilitating effective teaching-learning through online mode has become ever more relevant in post-COVID-19 pandemic era. The response from educational research pertaining to e-learning is expected to be a key component of UN 2030 agenda for sustainable development.

Perception of students towards online learning is vital because a leading factor contributing in loss of student motivation and persistence is negative perceptions about online learning in general. Previous studies have identified several critical factors influencing online learning from a student's perspective, including having a computer at home, gender, regular instructions and feedback from teachers, sense of belonging to the learning community, family support, and time management skills, course content and design characteristics, and overall perception of quality. All these factors contribute to the retention rate of MOOCs-fraction of initial registrants who completes the course-as student's perception is the primary determinant behind drop-outs. While men, in general, were more receptive to computers, a recent survey conducted in India revealed a higher prevalence of smartphone use in female students than in male students. However, no data available on which primary digital device (phone vs. computer) students use to access online courses.

1.1 Background of the topic

There is a considerable development in education, where the mode of instruction has been changed from teacher-centered education to student-centered education. In teacher-centered education, the teacher plays a role as the source of education, and students are recipients of his/her knowledge. In contrast, student-centered education emphasizes the role of students in knowledge production in the class. In a student-centered approach, the teachers' role turns to "helper to students who establish and enforce their own rules. Teachers respond to student assignments and encourage them to provide alternative/additional responses. Student-centered instruction has currently benefited many new technologies by using the internet and other advanced technological tools to share, transfer, and extend knowledge". Online learning has become a part of the 21st century as it makes use of online platforms. E-learning is defined as using online platform technologies and the Internet to enhance learning and provide users with access to online services and services

Internet and education have integrated to provide users with the necessary skills in the future. Studies indicated that online teaching has three main approaches, namely, enhanced, blended learning, and online approach. Enhanced learning uses the intensive use of technology to ensure innovative and interactive instruction. Blended learning mixes both face-to-face and online education. The online approach indicates that the course content is delivered online. Online education is convenient for students, where they can access online materials for 24 h. Online education turns education to be student-centered, where students take part in the learning process, and teachers work as supervisors and guides for students.

Online platforms have different tools to facilitate conducting online interactive classes to reduce students' loss. Online education platforms are designed to share information and coordinate class activities.

Detailed surveys of student's perceptions about online learning have been scanty in India, the second-most populous country in the world. Among a few studies that have addressed this issue, one study concluded the following: "students who embraced online learning felt positive about e-learning," which is rather a circular logic. Yet another study conducted among medical students suggested student motivation, interest and contact time between students and facilitator influenced receptiveness. In yet another purported study, authors wrote the paper in bullet points to merely

highlight the massive success of government schemes including SWAYAM and e-PG Pathshala during COVID-19 lockdown in India without any primary research undertaken by themselves. A generalized review on strengths, weaknesses, opportunities and challenges of online education in India did not reveal any new paradigms on student perceptions about online learning as well. There had been a gradual push towards online learning in general through union government's program promoting online business in general ("Digital India") and the Government's flagship program promoting e-Learning in particular ("Swayam"). A tremendous shift towards online learning happened during COVID-19 lockdown period where almost 100% of teaching-learning activities occurred via the internet. Meanwhile, COVID-19 has given educators time to rethink education and to address paradigms of education. However, with a Gini index of 37.8 as per World Bank (2011), income inequality is very high in India with considerable class-divide. "Digital divide" has been a trending term in recent years, yet no comprehensive study analysed this issue in context with online learning in India. At 105th position internet speed in India is amongst the lowest in the world. Besides, roughly 68.8% of Indians live in rural areas where internet receptivity is much more inadequate than in urban areas.

On the other hand, religiosity is extremely high in India. According to the 2011 Census of India, 99.73% of Indians identified oneself with a religion. Previous studies have shown that students from countries with higher religiosity perform lower in STEM subjects.

CHAPTER 2

Research Design

2.1 Statement of the problem

Individuals act and react based on their perceptions, not on the basis of objective reality. For each individual, reality is a totally personal phenomenon, based on that person's needs, wants, values, and personal experiences.

2.2 Review of Literature

1. Siburian, Mahmud, 2022

This research proposed ways to overcome the disadvantages of online learning by encouraging shy students to participate and provoke students' online class attendance. Online encourages shy students to participate and improve students' attendance, while it also triggers a lack of social interaction.

2. Aditya, K. S., and Jha, G. K. (2021)

Another recent study conducted in India during the same period also concluded that students prefer recorded lecture videos. In this study, we focus on understanding Agricultural Student's perception and preference towards the online learning through an online survey. In agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode, the insights from this article can be helpful in designing the curriculum for the new normal.

3. Shahrani, S. S., & Nawaz, S. (2021)

The study found that students' perceived usefulness, ease of use, and attitude toward edtech platforms positively affect their intention to use these platforms in their studies. Edtech platforms are very user friendly. They can be used by people of all ages all over the world. Online leaning helps students get educated according to their time convenience.

4. Bawa, P., & Tiwari, P. (2021)

The study found that edtech platforms positively affect student learning outcomes and can be an effective tool for providing personalized learning experiences. Edtech platforms offer personalised learning for individual customers. They provide instant grading and the reports are automated so there is no chance of human error.

5. Paredes, R., & Rodríguez, O. (2021)

The study found that edtech platforms can be used to enhance the quality of education by providing opportunities for active learning and facilitating communication between students and instructors.

6. Arribas-Bel, D., & Prieto-Blanco, A. (2021)

The study found that student satisfaction with edtech platforms is positively related to their academic performance and that the use of these platforms can contribute to reducing the achievement gap.

7. Abeysekera, L. (2021)

The study found that students' satisfaction with edtech platforms is influenced by their perceptions of the usefulness, ease of use, and social presence of these platforms

8. Pal , Vanijia, 2020

Utility of Microsoft Teams was examined for online teaching-learning transformation during COVID-19 lockdown in India. However, such modes do not offer flexitime. This work also considers the digital-divide aspect (mobile vs. web environment) that is prevalent particularly in developing countries like India, and whether it has any effect on the perceived usability. Results show that the consumption platform does not have any effect on the usability aspect.

9. Adedoyin and Soykan, 2020

The World Health Organization has declared Covid-19 as a pandemic that has posed a contemporary threat to humanity. This pandemic has successfully forced global shutdown of several activities, including educational activities, and this has resulted in tremendous crisis-response migration of universities with online learning serving as the educational platform. Faculty and students encountered challenges such as technology, workload, digital competence, and compatibility. They concluded that education would become hybrid, face-to-face, and online instructions.

10. Al Balas, Jaber, 2020

This study aims to explore the situation of distance E-learning among medical students during their clinical years and to identify possible challenges, limitations, satisfaction as well as perspectives for this approach to learning. Distance E-Learning is defined as using computer technology to deliver training, including technology-supported learning either online, offline, or both. A study to verify the usage of online learning platforms in teaching clinical medical courses was conducted. They found that the rate of student satisfaction is 26%

11. Nikdel Teymori and Fardin, 2020

Online learning has a vital role in learning during the crisis. Moreover, having properly maintained the technical infrastructure is required for its success at schools and universities. The present study was conducted on the hypothesis that distance education can be a proper training method for coping with COVID-19 prevalence in the current outbreak. Reviewing the studies performed all around the world indicated the success of online education and supported this training method, even though there are some problems in the transition from face-to-face teaching methods to modern methods.

12. Shahzad, Hassan, 2020

This study was conducted on male and female students' satisfaction in using E-learning portals in Malaysia. He found that there is a significant relationship between the user's satisfaction and E-learning. The satisfaction rate by both participants depends on E-service quality and the information provided in this research. The findings of the study reveal that males and females have a different level of in terms of usage of towards E-learning portals in Malaysian Universities.

13. Dhawan, 2020

This research scrutinizes online learning's SWOT. He shows that crisis highlights the role of technology competency in dealing with the global crisis and facilitating learning. Therefore, schools should train students with the necessary IT skills. The article includes the importance of online learning and Strengths, Weaknesses, Opportunities, & Challenges (SWOC) analysis of e-learning modes in the time of crisis. This article also put some light on the growth of EdTech Start-ups during the time of pandemic and natural disasters and includes suggestions for academic institutions of how to deal with challenges associated with online learning

14. Ahmed, M., & Khalil, M. (2020)

Customers perceive edtech platforms as convenient and effective tools for learning. Edtech platforms are convenient for the user as they can be accessed through any part of the world at any time. They provide the user comfort and flexibility. They provide automated reports and instant grading.

15. Cao, Y., Guo, X., & Xu, Y. (2020)

Customer satisfaction with edtech platforms is positively correlated with their perceived ease of use and usefulness. Customers are content with online learning because they are effective and save time. Online learning can be achieved from any part of the world.

16. Chiu, Y. J., Chen, C. M., & Lin, C. P. (2020)

Customers' perceived enjoyment and satisfaction with edtech platforms are positively related to their intention to continue using them. Online learning might be the future of education.

17. Hong, J. C., & Chang, K. C. (2020)

Customers' perceived usefulness and ease of use of edtech platforms are significant predictors of their satisfaction and continued use. Edtech platforms have an easy to use interface. They can be used by people of all ages all over the world.

18. Kulal and Nayak, 2020

Online learning is considered as an entertaining way to learn. It has a positive impact on both students and teachers alike. Both faculty and students have optimistic opinions about online classes. It also finds that teachers are facing difficulties in conducting online classes due to a lack of proper training and development for doing online classes. Technical issues are the major problem for the effectiveness of the online classes.

19. Rajan Gurukkal, July 2020

During COVID-19, education has been shifted into the techno-economic culture. The shift should associate with plans to reduce this shift's impact on the normal learning process. Many facts, figures and quantitative projections have come up assessing the gravity of post-COVID 19 downturn mostly from the angle of growth and hence obsessed with unknown threats to capital and compelling trade-offs. They all have anticipated economic and social consequences of the globally devastating health-crisis, unprecedentedly severe. Experts think that it is going to turn the world into another techno-economic culture.

20. Isaeva, Eisenschmidt, Vanari, Kumpas-Lenk, 2020

The COVID-19 outbreak shifts face-to-face education to online during the lockdown. This shift helps faculty integrate advanced technological skills in their teaching, which benefit students. The students' understanding of what the university expects from them, their roles and responsibilities, should be made

clear in order to effectively involve students in the quality assurance process. Students are seeking interaction: they would like to be engaged in the dialogue, collaboratively solve the issues concerning their studies, provide feedback and receive up-to-date information about the universities' development plans.

21. Li and Lalani, 2020

This study indicated that COVID-19 had brought change to the status of learning in the 21st century. education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. Research suggests that online learning has been shown to increase retention of information, and take less time, meaning the changes coronavirus have caused might be here to stay.

22. Alqahtani, M. A. (2019)

The author finds that Saudi Arabian students generally have positive attitudes towards edtech, but also have concerns about the quality and relevance of the content.

23. Elaine Unterhalter, 2019

The development of the global indicators for SDG4, has resulted in metrics that miss many of the values of the targets, most notably with regard to quality and free education and substantive, not simply distributive, meanings of equality. The article analyses why some of these slippages took place, and what potential there may be to mobilise for metrics that better depict the key tenets of the education goal and targets. The analysis considers ways forward for exploring measurement of the many meanings of quality and equalities in education.

24. Martin, F., Wang, C., and Sadaf, A. (2018)

A recent study conducted in the US revealed that the students perceive the instructor's use of synchronous sessions for interactions least helpful suggestive of the same trend. Instructors use various strategies to facilitate learning and actively engage students in online courses. In this study, we examine student perception on the helpfulness of the twelve different facilitation strategies used by instructors on establishing instructor presence, instructor connection, engagement and learning.

25. Allen I.E., Seaman J. Babson, 2017

Online learning has been on the increase in the last two decades. In the United States, though higher education enrollment has declined, online learning enrollment in public institutions has continued to increase

26. Kofi Ayebi-Arthur, 2017

Online learning works as a tool to overcome abrupt crises. Increasing deployment of the University's learning management system by staff and students plus audio recordings and video recordings of lectures enabled the College to continue its teaching. The Technology Acceptance Model and the generic model of organisational resilience by Resilient Organisations informed the analysis of the adoption and adaptation of e-learning than continued after the crises in the university.

27. Nemetz, Limpaphayom, 2017

The comparison between students' attitudes toward teaching the same interactive courses in online and face to face is similar. It is found that students performed equally at the same interactive courses in online and face-to-face instruction. Face-to-face instruction's success depends on regular class attendance, while the interactive classes relied on completing interactive worksheets. Therefore, online and face-to-face success is based on curriculum structure, mode of delivery, and completion rate

28. Ahmed Al-Azawei, Patrick Parslow, 2017

Methods, techniques, and strategies of education have been revised to deal with dramatic changes in technology. The technological enterprises have designed several online platforms, which are driven by the integration of technology in all walks of life. This study assesses learner perceptions of a blended e-learning system (BELS) and the feasibility of accommodating educational hypermedia systems (EHSs) according to learning styles using a modified version of the technology acceptance model (TAM).

29. Marcos Silva, Glenn F. Cartwright, 2017

Technology has become part of our social, business, and educational life'. The use of the Internet has a vital role in disseminating knowledge via online classes. It discusses the use of the Internet as a resource for teaching and research and as a virtual classroom and laboratory. Finally, the implications for education and librarianship concerning the establishment of these supernetworks are explored.

30. Beck and Blumer, 2016

As student outcomes, such as learning gains, are ultimately most important, future research should examine the degree to which faculty and student perceptions of instructional practices predict student outcomes in different contexts. Similarly, faculty perceptions were marginalized differently in teaching laboratory courses online.

31. Cheng, Chau, 2014

Research on faculty members' perceptions and attitudes toward online learning emphasized the role of instructors in facilitating communication and earning with students. Instructors acknowledged the content expertise and instructional design as the factors in the success of online learning. Similarly, the call for staff and student training is mandatory for online learning success

32. Kinney, Liu, Thornton, 2012

Faculty and students of engineering specialties incurred that theoretical engineering subjects can be taught online, while teaching practical courses online are less effective and should be conducted at engineering labs. Faculty and Student Perceptions of Online Learning in Engineering Education Distance education programs at the university level have been rapidly expanding. Studies have shown that the penetration of online courses is generally equal in most disciplines except for engineering.

33. Seok, Da Costa, 2010

This study used an extensive online course evaluation inventory to analyze the subjects' perceptions of course effectiveness in the following subscales: flexibility, user interface, navigation, getting started, technical assistance, course management, universal design, communications, instructional design, and content. Moreover, there is a positive correlation between students and faculty in their perception of teaching and learning

34. Virginia Roach, Linda Lemasters , 2006

The mode of education has turned into student-centered education, where students became independent learners. This is considered as an advantage as face-to-face instruction was teacher-centered education,

where students receive their education from their instructors. Online learning initiated students' role in using additional resources to discover their abilities as independent learners

35. Bartley and Golek, 2004

Online learning has been considered a useful tool for learning, cost-effectiveness, flexibility, and the possibility of providing world-class education. This paper provides a relatively concise and useful history of online learning, and a discussion of issues to be faced by the professional who intends to move the education and training environment online in response to the current academic and business environments.

2.3 Research Gap

There is a scarcity of data on customer perception of online education. To thoroughly analyze the customer perception we would need large amounts of data to see how they can be effectively mapped and thoroughly analyzed.

2.4 Hypothesis of the study

H1: There is a significant relationship between students' background and students' perception

H0: There is no significant relationship between students' background and students' perception

2.5 Objectives of the study

- To study the perception of youth on education through EdTech platforms.
- To understand the reasons of growing popularity of EdTech platforms among youth.
- To understand if the background of a customer affects their perception of online education.
- To analyze the challenges faced through traditional mode of education.

2.6 Scope of the study

- To know the customer perception on education through edtech platforms.
- To understand the value of education gained from edtech platforms.
- To give suggestions regarding improvement of content available on edtech platforms.

2.7 Limitations of the study

- This study is restricted to perception of youth mainly in India and perception of children and teenager is not included who are also one major consumer of EdTech application.
- The data has been collected mainly of youth from semi urban and urban cities only.
- The primary data respondent might not give honest answers.

CHAPTER 3

Recommendations and Conclusion

3.1 Recommendations

- In order to implement online learning, there must be more interest given to the course structure design, whereas it should be based on theories and prior literature.
- Instructor and course developer need to be trained and skilled to achieve online learning platforms goals.
- Workshops and training sessions must be given for both instructors and students to make them more familiar in order to take the most advantages of the learning management system (LMS).
- The software itself is not enough for creating an online learning environment that is suitable for students and instructors.
- If instructors were not trained and unaware of utilizing the software in the class, then the quality of education imparted to students will be jeopardized.
- Training and assessing the class instructor and making modifications to the software could result in a good environment for the instructor and a quality education for the student.
- Both student's perception and academic achievements depends on their prior knowledge and experience in relation to online learning.

3.2 Conclusion

This study has given the reasons for increase in demand of EdTech application among Youth. The quality of content provided and the availability of these materials 24/7 is one of the leading factors towards it. Most of the competitive exams are conducted in online mode and thus majority of youth use EdTech App for preparation of these examinations. Although some of them still think that traditional mode of education is better, but they still believe the education should be promoted through EdTech Application. In order to promote E-learning in India EdTech Industry has a very bright future ahead and to secure the future of traditional mode of education in India it is relevant to promote online education not just by conducting online classes but by using attractive ICT tools for teaching, learning purpose like EdTech app does. And also blended learning is an effective teaching model amid pandemics to improve motivation, achievement, and learning performance. Furthermore, each institution needs to prepare well for designing interesting learning media, and designing modules that are more flexible, making adjustments such that students adapt to changes in the teaching, learning and assessment, both face-to-face and online. However, this is also a call for the government to improve internet networks and infrastructure in remote areas, in order to facilitate online education. The results of this research provide additional insight to all those involved in the implementation of education. However, further research is needed to obtain a more complete explanation.

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