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WHAT INFLUENCES CHOICE OF E-LEARNING PLATFORM ?

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Abstract - *E-learning has become the mandatory component of all educational institutions like schools, colleges, and universities in and around the world due to the pandemic crisis of COVID-19. This deadly situation has flipped out the offline teaching process. E-learning provides an effective teaching method that brings out the best in students. To find out the student's attitude towards e-learning, primary data has been collected through Google forms which include the student community from various schools, colleges, and universities. This research paper aims to study the E-learning factors that attract students towards E-learning platforms. Exploratory factor analysis was used to arrive at two factors which acted as the main contributors towards attracting students. This research article shows that E-learning has become quite popular among the students all over the world particularly, the lockdown period due to the COVID-19 pandemic.*

Key Words: E-Learning, Factor analysis, COVID-19, Student Satisfaction, Effectiveness.

1.INTRODUCTION

The COVID-19 crisis has been a major catalyst in enhancing the learning process not just for students and educators, but also for investors and edtech startups. The coronavirus pandemic has forced major changes in education at every level, from early years to adult learning and career development. The pandemic has accelerated the adoption of digital technology in education with global edtech investment on track to grow by 15% in 2020, a predicted €6.4 billion. At its peak in mid-April, the virus caused nationwide school closure in 190 countries, impacting 90% of total enrolled students, almost 1.6 billion people globally. In this context, edtech startups are helping schools and universities adapt and evolve. As for adult learning, it is now much easier to get access to remote learning, with increasing online courses from traditional institutions, income-sharing agreements which basically consist in study now, pay later, or bootcamps to get them ready for new professions.

Vedantu is an Indian online tutoring platform where teachers provide tuitions to students over the internet, using a real-time virtual learning environment named WAVE (Whiteboard Audio Video Environment) a technology built in-house. It is said to operate on a marketplace model for teachers, where students can browse, discover and choose to learn from an online tutor. It primarily provides services to students of grade 4th to 12th for Indian Certificate of Secondary Education (ICSE) & Central Board of Secondary Education. Currently the company's primary business is live online tutoring in STEM, Hindi, English, Sanskrit, German, French, Environmental Science and Social Science. It uses White board audio video education (WAVE) method for their 1-1 student teacher live sessions. It also claims to provide test preparation courses for Indian Institute of Technology Joint Entrance Examination (JEE) Foundation, National Talent Search Examination (NTSE) and Problem Solving Assessment. This document is template. We ask that authors follow some simple guidelines. In essence, we ask you to make your paper look exactly like this document. The easiest way to do this is simply to download the template, and replace(copy-paste) the content with your own material. Number the reference items consecutively in square brackets. However the authors name can be used along with the reference number in the running text. The order of reference in the running text should match with the list of references at the end of the paper.

1.1 Statement of the Study:

The spread of COVID-19 has forced millions of students and teachers to move their communication online. The schools are closed until further notice and we have to adapt to a new lifestyle. Teachers and administrators are working hard during lockdown trying to keep students on track, shifting to online learning within the shortest time. Although technology evolution now allows many things we haven't believed possible, the shift to e-learning doesn't go as smoothly as we want it to be. Facing the pitfalls of digital learning may be discouraging and frustrating both for teachers and students. This study mainly focuses on the interest of students towards E- learning, and how likely it improves their quality of education.

1.2 Purpose of the Study:

This study will help to find out the students' attitudes towards e-learning during COVID – 19 Pandemic. This study was done for the students who are studying in various colleges and universities and also to gain additional information regarding the contribution of e-learning during this pandemic.

1.3 Objectives of the Study:

To measure the factors the lead to the preference of E-learning platforms. The respondents were from Kochi region, Kerala.

2. Literature Review

Literature has highlighted the different model based studies on factors influencing employee intentions to use e-learning platforms (Sun Joo Yoo and Seung-Hyun,2013). Similar studies in the Indian scenario has been able to investigate the technological changes in learning using technology and its psychological impact (Suganya, S., and B. Sankareshwari, 2020). There has also been likewise mentions in literature over the world related to transition to E-learning and its issues (Diane P. Janes and Mark Bullen; 2007).

The benefits of visual assisted learning modules and the interative E-learning have been studied in some previous research (Saravanakumar, AR., Paavizhi, K., & Palanisamy, P., 2019; Prabakaran, B., & Saravanakumar, AR. 2020). The wide spread usage of e-learning content during the pandemic has been stressed in literature (Mahalakshmi, K & Radha, R ,2020).

The challenges, stress factors of students in higher education with both genders compared and also the factors affecting e-learning during the pandemic was pointed out in some research(Mohammed Amin Almaiah & Ahmad Al-Khasawneh & Ahmad Althunibat, 2020; Najmul Hasan & Yukun Bao; Arfan Shahzad, Rohail Hassan, Adejare Yusuff Aremu, Arsalan Hussain & Rab Nawaz Lodhi, 2021; Moya O'Brien & Grainne Hickey ,2020).

The growth of EdTech companies that flourished making use of the spread of the pandemic Covid 19 was found in literature (Shivangi Dhawan , 2020; Marko Teräs, Juha Suoranta, Hanna Teräs & Mark Curcher, 2020).The shift in the education system during the pandemic to e-learning or digital learning was highlighted in studies (Samta Jain, Marie Lall & Anviti Singh, 2020; Deedra Vargo, Lin Zhu ,2020; Prof. Priyanka PanditaKoul, Prof. Omkar Jagdish Bapat ,2020; Ronghuai Huang, Ahmed Tlili, Ting-Wen Chang, and Xiangling Zhang, Fabio Nascimbeni & Daniel Burgos ,2021).

3. Research Methodology

Research Design: The research design adopted for the purpose of study is descriptive in nature. Likert Scale was part of the questionnaire framing. The data collected will include the demographics of the respondents

Sampling method: The sampling method used was convenience sampling. Primary data was collected through a Questionnaire. Secondary data was collected from journals and websites/related Reports on the E-learning platforms.

Sample Size: The sample size consisted of 120 people in the age group above 18 years for the purpose of the research. The sampling method was convenience sampling. The people were from different

Data Collection method: A structured questionnaire designed using Google forms was used for executing this survey.

4. Results and Discussion

4.1 Demographic Details

The demographic data of the respondents are given in table 1. From the data collected, majority of the respondents were from the younger generation (18 to 25 years). Males formed a major portion of the responses. Most of the respondents were graduates. The responses were concentrated from the student community which formed a significant number among the responses. The major share of the respondents were from the lower income band.

Table 1: Demographic Data of Respondents

Demographic characteristic	Percentage of Respondents (%)
Age Group	
18 and below	1.7
19 - 25	82.4
26 - 35	13.4
36 - 45	2.5
Gender	
Male	57.1
Female	42.9
Level of Education	
SSLC/10th	5
61	23
Graduate	61
Post Graduate	11
Occupation	
Student	69.7
Business	7.6
Salaried	18.5
Others	4.2
Annual Income	
1,00,000-3,00,000	64
3,00,000-5,00,000	15.2
5,00,000-7,00,000	11.6
7,00,000-10,00,000	6
Above 10,00,000	2.8

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Table 2: What Is Your Primary Reason For Using An E-Learning Platform

WHAT IS YOUR PRIMARY REASON FOR USING AN E-LEARNING PLATFORM?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Connect World	1	0.8	0.8	0.8
	COVID -19 PANDEMIC	1	0.8	0.8	1.7
	Due to lockdown	1	0.8	0.8	2.5
	Expose to pursue more courses	29	24.4	24.4	26.9
	Expose to pursue more courses, To earn a distance degree of Certificate	9	7.6	7.6	34.5
	Learning from home	1	0.8	0.8	35.3
	Necessary for online classes	1	0.8	0.8	36.1
	Never used an E-learning platform	18	15.1	15.1	51.3
	Skill Enhancement of career advantage	23	19.3	19.3	70.6
	Skill Enhancement of career advantage, Expose to pursue more courses	4	3.4	3.4	73.9
	Skill Enhancement of career advantage, Expose to pursue more courses, To earn a distance degree of Certificate	11	9.2	9.2	83.2
	Skill Enhancement of career advantage, Expose to pursue more courses, To earn a distance degree of Certificate, Never used an E-learning platform	1	0.8	0.8	84
	Skill Enhancement of career advantage, To earn a distance degree of Certificate	6	5	5	89.1
	To earn a distance degree of Certificate	13	10.9	10.9	100
	Total	119	100	100	

In the above figure, most of the respondent's primary reason for using E-learning platforms is for Expose to pursue more courses and certificates just by sitting home.

4.2_**Factor Analysis: Students Satisfaction towards E-Learnings and Factors influencing students towards E-Learning.**

Table 3: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.772
Bartlett's Test of Sphericity	Approx. Chi-Square	509.163
	df	36
	Sig.	0

When KMO values are between 0.08 and 1, it indicates that the sampling is adequate. In the above table the KMO value is 0.772 and the Bartlett's test is significant. This indicates that factor analysis is permissible with given data.

Table 4: Communalities

Communalities		
STUDENTS SATISFACTION TOWARDS E-LEARNING (rate in the scale out of 5)	Initial	Extraction
Effectiveness of students comprehending learning material	1	0.666
Interaction between Students and Teachers	1	0.746
Interaction between Students	1	0.661
Effort of students to make E-learning platform effective	1	0.709
Learning from Home	1	0.701
Easy access to Information	1	0.749
Freedom in choosing learning material	1	0.741
Cost effective compared to traditional learning	1	0.451
Improve Self-Study skills	1	0.601

Extraction Method: Principal Component Analysis.

In the above table, student's satisfaction towards E-learning 74% of the variance of the factor accounted for Interaction between Students and Teachers. In the above table, advantage of E-learning platform 74% of the variance of the factor accounted for Easy access to Information.

Table 5 : Total Variance

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.253	36.14	36.14	3.253	36.14	36.14	3.252	36.137	36.137
2	2.772	30.805	66.945	2.772	30.805	66.945	2.773	30.807	66.945
3	0.792	8.804	75.748						
4	0.568	6.306	82.054						
5	0.502	5.577	87.631						
6	0.336	3.733	91.364						
7	0.298	3.316	94.68						
8	0.265	2.941	97.621						
9	0.214	2.379	100						

Extraction Method: Principal Component Analysis.

The Total column gives the eigenvalue, or amount of variance in the original variables accounted for by each component. The percentage of Variance column gives the ratio, expressed as a percentage, of the variance accounted for by each component to the total variance in all the variables. From this table, the **First Component** accounts for "36.137%" of the variance, the Second Component "66.945%". All the remaining factors are not significant.

Table 6: Rotated Component Matrix

Rotated Component Matrix[a]

STUDENTS SATISFACTION TOWARDS E-LEARNING (rate in the scale out of 5)	Component	
	1	2
Effectiveness of students comprehending learning material	-0.06	0.814
Interaction between Students and Teachers	0.085	0.859
Interaction between Students	0.006	0.813
Effort of students to make E-learning platform effective	-0.037	0.841
Learning from Home	0.837	-0.007
Easy access to Information	0.865	0.004
Freedom in choosing learning material	0.861	-0.027
Cost effective compared to traditional learning	0.671	-0.027
Improve Self-Study skills	0.774	0.045

The first component was identified as "Learning Comfort Factors" which included Learning from Home, Easy access to Information, Freedom in choosing learning material, Cost effective compared to traditional learning, Improve Self-Study skills.

The second component was identified as "Learning Effectiveness Factors" Effectiveness of students comprehending learning material, Interaction between Students and Teachers, Interaction between Students, Effort of students to make E-learning platform effective.

5. Conclusion:

E-learning seems to be the forthcoming trend. It has been extending widespread. The online method of learning is best suited for everyone. Depending on their availability and comfort, many people choose to learn at a convenient time. This enables the learner to access updated content whenever they want it. Due to the wide set of benefits, it gives to students. The findings of the study reflect the impact of E-learning, students' interest in using E-learning resources, and their performance. The key factors that influenced towards E-learning platforms were Learning comfort factors and Learning effectiveness factors. Covid-19 has brought about new companies that have been able to make use of these factors to attract potential customers towards using their softwares.

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