

ADOPTION OF E-LEARNING BY GENERATION Y: A TEMPORARY PHENOMENA INDUCED BY COVID-19 OR A PARADIGM SHIFT

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ABSTRACT

Currently webinars, online sessions have become routine of Indian urban households especially for India's Generation Y. Lockdown induced improved access and usage of E-learning may contribute to skill enhancement of millennials. However, it needs to be assessed whether this change is temporary or a paradigm shift. This paper tries to understand the extent to which awareness and adoption of e-learning platforms has improved in urban areas and what are future intentions of urban millennials. The study is based on a survey of 238 respondents of Mumbai district, majority of them are Gen Y or their parents. Data was analyzed using simple percentages and Chi Square tests. The analysis indicated that not just the lockdown but many other factors like awareness of the benefits of the e-learning platform, quality of material provided by the e-learning platform affects its adoption. Respondents are well aware of advantages and disadvantages of both traditional as well as e-learning platforms and thus shown inclination towards using both hybrid learning with good mix of both.

Keywords: Skill, Knowledge Enhancement, Generation Y, Adaptation, E-Learning

Millennial, also called as 'Generation Y', is the largest demographic group in India. However large number of younger human resource needs to be skilled for economic growth. Till March 2020, skill and knowledge enhancement was mainly the responsibility of traditional class-room teaching and E-learning was just a supportive activity. However, Covid-19 and lockdown brought radical change in the scenario, traditional learning came to a standstill and e-learning became the only source of imparting education and training. Slowly and gradually people adopted the new system. Now Indian Gen Y is seen in their houses, grabbing different corners, their eyes glued to some screen, doing the office work, attending different skill enhancement sessions, or attending school and college lectures. Traditional learning seems

to be replaced by online learning which can be considered as a positive aspect since E-learning will increase access to education.

Here the research question is are our millennials ready to adapt and adopt E-learning as a way of learning? In short this paper tried to understand whether boom is E-learning is a paradigm shift or just a temporary phenomenon.

I. REVIEW OF LITERATURE

Ammar (2020) observed that support from the management, awareness of utilization of E-learning systems among students, technology knowledge management system are critical factors for success of E-learning in Saudi.

Chen (2020) studied user experience of

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online learners of China pre and post covid. According to the study, users' focus from speed, reliability, etc. has shifted and more attention is given to the course management, teaching functionalities, level of interaction and communication

Rehana (2020) tried to understand the perspective of medical students and their satisfaction level with the synchronous online learning method implemented during pandemic in Saudi Arabia. Preclinical students were more likely to adopt virtual lectures when compared to clinical students. Technical issues, individual behavioral characteristics, absence of non-verbal clues were some of the major obstacles faced by the respondents.

According to the study by Rahul (2019) E-learner competency, External Influence, System Interactivity and Social Influence are the four factors that govern the acceptance of E-learning where students from Gwalior were concerned.

According to Shivcharan (2018), students of Gwalior found E-learning very attractive. However, they were found to be facing challenges of limited infrastructure, lack of comfort with technology and financial resources.

According to Falih (2016) graduate and undergraduate students of HBCU were positive about online learning system but wanted the learning to be more flexible and technology oriented.

II. RESEARCH DESIGN AND METHODS

Adoption of E-learning by millennials is a temporary phenomenon or paradigm shift is the research question this paper tries to deal with.

Stratified sampling method was used where survey of 238 millennials across Mumbai district was taken. Well-structured questionnaire was circulated in google documents form to collect data. Data was analyzed by using simple percentage methods in order to understand awareness, adoption, advantages and disadvantages of E-learning platform and future

preferences of respondents. CHI-SQUARE tests are used in order to find association between awareness and various socio-economic variables as well as association between awareness and adoption of E learning.

Objectives of research are as follows

- To examine how many respondents are aware of different benefits of E learning platform
- To find various factors that influence awareness of benefits of E learning.
- To study whether awareness of benefits of e learning and adoption of e learning, are related.
- To examine perception of urban millennial about advantages and disadvantages of e-learning platform.
- To find future preferences of urban respondents regarding learning platforms.

Initially the paper tried to investigate whether there is any association between awareness of benefits of E learning platform and various socio-economic variables. Later it was examined whether there is any association between awareness of benefits of e-learning and its adoption.

Analytical tools

The collected data of 238 respondents was analysed using SPSS version 22.0 and Ms Excel. Initially awareness of respondents regarding five key benefits of e-learning platform was tested with the use of simple arithmetic mean. Further it was examined whether there is any association between awareness of e learning benefits and socio-economic factors like gender, age, educational qualification and occupation, as well as association between awareness and adoption of e-learning with the help of CHI SQUARE TEST. Simple arithmetic mean was used to find out perceived advantages and disadvantages of e-learning and their future intensions. Following hypotheses were tested

H1₁:- There is an association between gender and awareness of e-learning

H1₂:-There is an association between age and awareness of e-learning.

H1₃:- There is an association between educational qualification and awareness of e-learning.

H1₄:- There is an association between occupation and awareness of e-learning

H1₅:- There is an association between awareness and adoption of e-learning

ANALYSIS & DISCUSSION

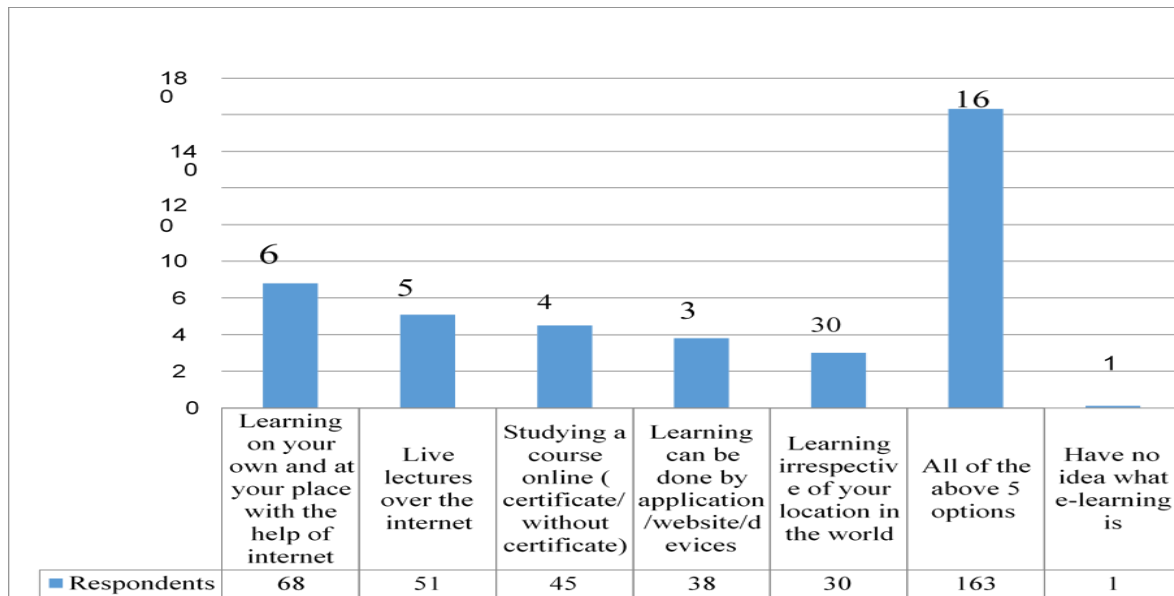
Table 1 shows that majority respondents were from the age group of 20-29 and 30-39, where female respondents were 53.80%. Where education-wise distribution is concerned, 46.20% were graduates and 28.60% were post graduates. Occupation-wise majority respondents (63.40%), were students.

Table 1: Socio-Demographic Profile of Respondents

Class Interval	Respondents	% of Respondents
Age Group		
Less than 20	27	11.30%
20-29	164	68.90%
30-39	28	11.80%
40 and above	19	8.00%
Gender		
Female	128	53.80%
Male	110	42.20%
Educational Qualification		
Primary	6	2.50%
Secondary	18	7.60%
Under Graduate	21	8.80%
Graduate	110	46.20%
Post Graduate	68	28.60%
Professionals Courses	15	6.30%
Occupation Status		
Student	151	63.40%
Professional	22	9.20%
Salaried	52	21.80%
Homemaker/Housewife	3	1.26%
Businessman	9	3.78%
Retired	1	0.42%

Figure 1 shows that 163 respondents were aware of all five benefits of E-learning and thus are considered as most aware respondents.

Figure 1: Awareness of benefits of e-learning



Association between gender and awareness of benefits of e-learning was analyzed with the help of CHI SQUARE TEST (table 2), where the level of significance was found to be “.000” and thus the H_{O1} was rejected. Cross Tabulation between gender and awareness shown in table 3 indicates that female respondents are more aware of benefits of e-learning than male respondents.

Table 2: Chi-square Test of gender and awareness of e-learning

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	239.429 ^a	4	.000
Likelihood Ratio	13.376	4	.010
N of Valid Cases	239		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .00.

Table 3: Cross-tabulation between Gender and Awareness of E-learning

			All of the above 5 options			Total
			0	1	163	
Gender		Count	0	0	1	1
		Expected Count	.3	.7	.0	1.0
	Female	Count	38	90	0	128
		Expected Count	40.2	87.3	.5	128.0
	Male	Count	37	73	0	110
		Expected Count	34.5	75.0	.5	110.0
Total		Count	75	163	1	239
		Expected Count	75.0	163.0	1.0	239.0

Analysis of association between age of respondents and their awareness about e-learning is shown in table 4 and 5. The analysis indicates that respondents of higher age groups (more than 20 years) are better aware of e-learning benefits than respondents of lower age. The H_{O2} was rejected.

Table 4: Chi-square test of age and awareness of e-learning

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	258.420 ^a	8	.000
Likelihood Ratio	31.233	8	.000
N of Valid Cases	239		

a. 7 cells (46.7%) have expected count less than 5. The minimum expected count is .00.

Table 5: Cross tabulation between Age and Awareness of E-learning

			All of the above 5 options			Total
			0	1	163	
Age		Count	0	0	1	1
		Expected Count	.3	.7	.0	1.0
	20-29	Count	48	116	0	164
		Expected Count	51.5	111.8	.7	164.0
	30-39	Count	6	22	0	28
		Expected Count	8.8	19.1	.1	28.0
	40 and above	Count	3	16	0	19
		Expected Count	6.0	13.0	.1	19.0
	Less than 20	Count	18	9	0	27
		Expected Count	8.5	18.4	.1	27.0
	Total	Count	75	163	1	239
		Expected Count	75.0	163.0	1.0	239.0

Table 6 and 7 indicate that there is association between educational qualification and awareness of benefits of e-learning since the level of significance was found to be “.000” and thus the HO₃ was rejected. Cross Tabulation results (table 7) shows that graduates and post graduates were more aware of benefits of e-learning.

Table 6: Chi-Square Test of educational qualification and awareness of E-learning

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	263.079 ^a	12	.000
Likelihood Ratio	35.378	12	.000
N of Valid Cases	239		

a. 12 cells (57.1%) have expected count less than 5. The minimum expected count is .00.

Table 7: Cross-tabulation of Educational Qualification and Awareness of E-learning

			All of the above 5 options			Total	
			0	1	163		
Educational qualification		Count	0	0	1	1	
		Expected Count	.3	.7	.0	1.0	
	Graduation	Count	27	83	0	110	
		Expected Count	34.5	75.0	.5	110.0	
	Post-graduate	Count	18	50	0	68	
		Expected Count	21.3	46.4	.3	68.0	
	Primary education	Count	4	2	0	6	
		Expected Count	1.9	4.1	.0	6.0	
	Professional courses	Count	3	12	0	15	
		Expected Count	4.7	10.2	.1	15.0	
	Secondary education	Count	13	5	0	18	
		Expected Count	5.6	12.3	.1	18.0	
	Under-graduation	Count	10	11	0	21	
		Expected Count	6.6	14.3	.1	21.0	
	Total		Count	75	163	1	239
			Expected Count	75.0	163.0	1.0	239.0

Association was also found between occupation & awareness (table 8 & 9) and thus HO₄ was rejected. The cross-tabulation results indicated that professionals, businessmen, housewives, salary earners were more aware of benefits of e-learning than students.

Table 8: Chi-Square Test of Occupation and Awareness of E-learning.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	251.148 ^a	12	.000
Likelihood Ratio	26.454	12	.009
N of Valid Cases	239		
a. 14 cells (66.7%) have expected count less than 5. The minimum expected count is .00.			

Table 9: Cross tabulation of Occupation and Awareness of E-learning

		Awareness			Total	
		0	1	163		
Occupation		Count	0	0	1	1
		Expected Count	.3	.7	.0	1.0
	Businessman	Count	2	7	0	9
		Expected Count	2.8	6.1	.0	9.0
	Homemaker/ housewife	Count	2	1	0	3
		Expected Count	.9	2.0	.0	3.0
	Professional	Count	2	20	0	22
		Expected Count	6.9	15.0	.1	22.0
	Retired	Count	0	1	0	1
		Expected Count	.3	.7	.0	1.0
	Salaried	Count	12	40	0	52
		Expected Count	16.3	35.5	.2	52.0
Student	Count	57	94	0	151	
	Expected Count	47.4	103.0	.6	151.0	
Total		Count	75	163	1	239
		Expected Count	75.0	163.0	1.0	239.0

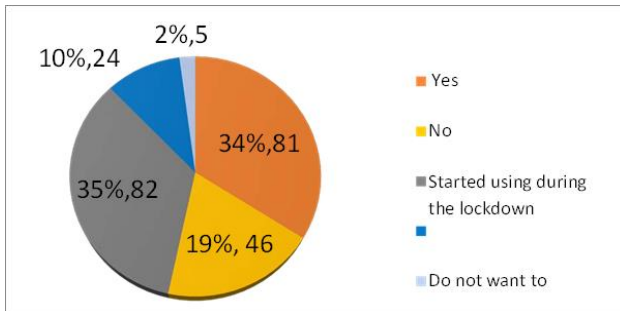


Figure 2: Adoption of E-learning

Figure 2 shows actual adoption of e-learning platform by respondents. 34% respondents said that they are using e-learning platform whereas 19% were not ready to use it. 35% respondents started using it during lockdown, 10% indicated that they will use in future and 2% responded that currently they are not using it. Thus real small section of sample do not wish to use e-learning platform.

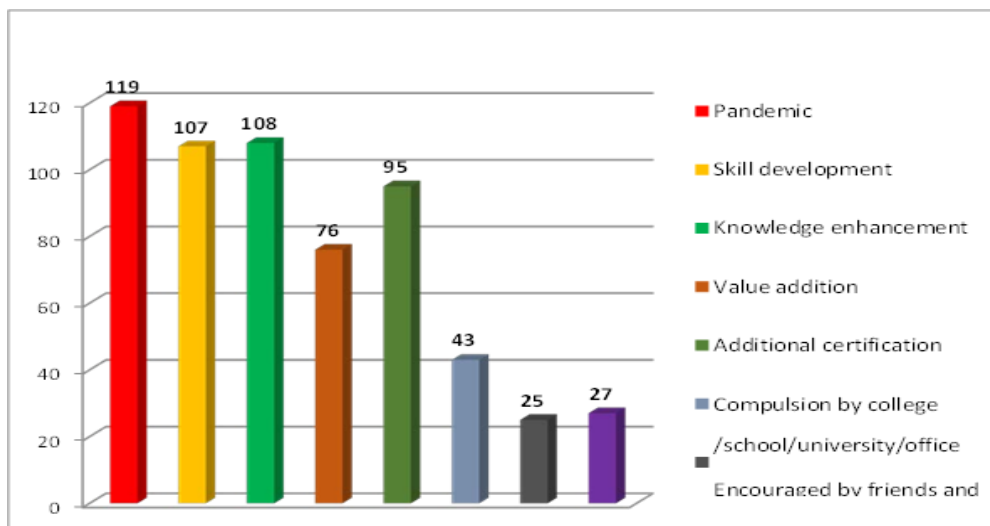


Figure 3: Reasons for using E-learning Platforms

Figure 3 clearly shows that along with ‘pandemic’ there are many other significant reasons for adopting E-learning like opportunities of skill development, knowledge enhancement, additional certification and value addition. A small number of respondents had given ‘compulsion by school, colleges’ as a reason for using e-learning platform.

The data was further analyzed for finding an association between awareness of e-learning benefits and adoption of e-learning by respondents.

Thus 163 out of 238 respondents who were found to be most aware of benefits of e-learning were selected. Association between awareness and adoption of e-learning by these selected respondents was examined by using CHI SQUARE TEST and as shown in the table 10, level of significance was found to be “0.00” and H_0 was rejected. Cross tabulation output shown in table 11 clearly indicates that actual count of respondents who have adopted or intend to adopt is more than expected count. The table also indicates that for these respondents lockdown is not a strong reason for adoption of e-learning.

Table 10: Chi-Square test of awareness and adoption of E-learning

	Value	Df	Asymptotic Significance (2- sided)
Pearson Chi-Square	249.442 ^a	10	.000
Likelihood Ratio	22.977	10	.011
N of Valid Cases	239		

a. 10 cells (55.6%) have expected count less than 5. The minimum expected count is .00.

Table no 11: Cross-tabulation of Awareness and Adoption of E-learning

		Are you using the e-learning platform?						Total	
			Do not want to use	Intend to use in future	No	Started using during the lockdown	Yes		
Awareness	0	Count	0	4	7	10	32	22	75
		Expected Count	.3	1.6	7.5	14.4	25.7	25.4	75.0
	1	Count	0	1	17	36	50	59	163
		Expected Count	.7	3.4	16.4	31.4	55.9	55.2	163.0
	163	Count	1	0	0	0	0	0	1
		Expected Count	.0	.0	.1	.2	.3	.3	1.0
Total		Count	1	5	24	46	82	81	239
		Expected Count	1.0	5.0	24.0	46.0	82.0	81.0	239.0

Table 12 & 13 indicate perception of respondent about advantages and disadvantages of e-learning platform. Majority respondents like e-learning since it is easy to access, user friendly and innovative method of teaching and learning. However, lack of face-to-face communication, lack of practical activity are negative points of e-learning platform.

Table 12: Opinion about positive aspects of the e-Learning platform

What are the positive aspects of e-Learning platforms?	Respondents	% of Respondents
User-friendly	150	63%
Easy accessibility	164	69%
Reliable data	74	31%
Innovative technique	125	53%
Effective and motivating	80	34%

Table 13: Opinion about negative aspects of the e-Learning platform

What are the negative aspects of the e-Learning platform?	Respondents	% of Respondents
Lacks face to face communication	168	71%
Social isolation	73	31%
Is not suitable for some courses	143	60%
Practical demonstrating not possible	132	56%
Lack of accreditation & quality assurance	93	39%

Table 14: Preferences about different learning options

Please indicate which one you will prefer	Respondents	% of Respondents
Online /e-learning	33	14%
Hybrid learning (a combination of online and traditional learning)	166	70%
Traditional learning (Classroom teaching)	39	16%

Majority respondents have voted for “hybrid” learning (Table14) where good combination of traditional and e-learning will be done where both platforms should be complementary to each other and not competitive

CONCLUSION

On the basis of analysis, following empirical findings can be listed

- Almost all urban Indians seem to be aware of benefits or uses of e-learning platform, for which pandemic, lockdown and compulsions related to that might be responsible
- Where better awareness of e-learning platform benefits are concerned, gender,

age, educational qualification and occupation are the factor which seem to be influencing the level of awareness. Occupation-wise, people who are working for industry understand importance of usage of e-learning for skill enhancement better than students.

- Wide majority of urban respondents have adopted e-learning platform for which better internet connectivity, better availability of different electronic gadgets like laptops, PCs, android phones might be responsible
- People are using online learning platform not just due to ‘Pandemic’, but for many other reasons like skill development, value addition etc.

- Better awareness of benefits of e-learning have more influence on adoption of e-learning.
- E-learning platform is used due to easy accessibility and innovative teaching methodology.
- Respondents also value face to face communication and practical experiments in education and thus prefer hybrid education.

Thus it can be concluded that higher usage of E-learning is likely to be a 'paradigm shift and certainly not a temporary phenomenon.

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