

USE OF E-CONTENT INITIATIVES AND ONLINE LEARNING PLATFORMS (OLPS)

Jaya Suriya Dheva, R. S.^{1} and Srinivasaragavan Prof. S.²**

1 PhD Research Scholar, Department of Library and Information Science, Bharathidasan University, Tiruchirappalli 620 024. Email: suriyakumarraja@gmail.com

2 Senior Professor and Chair, Department of Library and Information Science, Bharathidasan University, Tiruchirappalli 620 024. Email: maduraiseenoo@yahoo.co.in

** - corresponding author

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Abstract

The study aims to evaluate the level of awareness, accessibility and usage of econtent initiatives and online learning platforms among students, scholars and faculty. A purposive sampling method was used and data were collected from 74 respondents through a structured questionnaire and analysed using statistical tools. The results reveal that awareness of e-content and online learning platforms varies across international, national and regional initiatives. It further finds that student show higher usage and adoption of online learning platforms compared to scholars and faculty. However, access to devices and infrastructure remains limited for many users. Statistical analysis confirms that awareness and accessibility have a strong positive relationship with usage. Regression results indicate that awareness is the most influential factor, while accessibility acts as a supporting factor.

INTRODUCTION

Higher education has evolved in the recent years with the paradigm shift of traditional classroom-based teaching learning to blended methodology of classroom teaching learning with online learning as a supplementary. This major shift began to the educators in the wake of covid when the physical classrooms were shut and there required new medium of instruction through which the delivery of

academic content is not disrupted. Subsequently, lecturing via e-content in online learning platforms, educating through video exchanging applications such as Google Meet, Zoom, Webex; classes through free video streaming platform: YouTube or institution authenticated integrated learning portal was highly prioritised by the higher education

authorities as a better alternative for uninterrupted media of learning.

Though the lockdown lasting more than 60 days in 4 phases was lifted and the classroom shifted back to its original method of teaching, it was reported that the students were more comfortable in digital media of instruction and learning through PDFs, YouTube Videos, Online Quizzes to physical classroom learning and assessment. Against this backdrop, the problem arises when adoption of online learning resources by the academics of higher education in India and particularly in Tamil Nadu is the major turning point in the change of methodology in teaching and the distinctions that need to be upgraded into the curricula for the betterment of students in future.

Thus, the research attempts to explore: (a) to what extent does the e-content initiatives and online learning platforms have propagated awareness among academics within global, national and regional initiatives and (b) how well it is adopted by the users, (c) the setbacks of using these resources and (d) understanding the diverse varying real time perception of existing online learning facilities as well as futuristic prototypical opinion of upcoming courses for a feasible learning is assessed

and evaluated from the surveyed respondents in the study.

PREVIOUS LITERATURE

Pratama, P. M., Efendi, A. N., & Umami, E. E. (2022). have developed MOOC based instructional materials for high school students that teach Indonesian. With the adoption of define, design, develop and distribute methodology and 4D Thiagarajan research design, the findings reveal that Indonesian Language MOOC for High School is better tool to assess student and teacher and using it as additional study.

Ayub, E. et. al. (2021). have strategized with the proposal of using Learning Design Strategy Framework which could enable practitioners among the course instructors and e-Content Development Specialists to work collaboratively in developing a module site for learning at a scale. Though the study apprehends a conceptual framework, it uses Malaysian Studies 3 course as a sample and situate the content transformation required for the framework.

Huynh-Cam, T. T. et. al. (2021). have studied the ways and means by which e-learning could be benchmarked in higher education. Focussed on methodology of assessment, the study attempted to distinct

benchmarking practices through which the quality assurance of e-learning can be implemented in theory and practice.

Yeboah, R. (2022). has expressed in his study that not all students who took part in the online learning platform knew about online learning platforms as students were not given enough training before migrating the courses to online mode.

Raimi, L., Bamiro, N. B., & Olohunfunmi, A. I. (2026). have reviewed 43 peer reviewed articles and identified four findings: privacy challenges are at stake with the advanced technology in online learning, data frameworks and adaptive learning system promote inclusivity, requirement of establishing policies that enforce privacy, mitigate ethical risks and curb data commercialization and AI driven personalisation as well as systemic policy reforms enhances equitable and inclusive digital learning worldwide. **Jiang, J., Hu, J., & Feng, T. (2025).** advocated to provide proper training for teachers to handle lectures through institutionally designed learning management system to engage students in learning. **Mansour, E. (2021).** has expressed YouTube, WhatsApp, Presentation Tube, Google Classrooms, Zoom, Blackboard and Facebook are the most used online learning platforms among

faculty of Arab Public Universities as the digital literacy and engagement of students were significant reasons for using these platforms.

Yeboah, R. (2022). has reported that nearly half of the students were not active in online learning and engaging in those was a new experience to many students. Because of which, it had adverse effect on usage among the students as they were not comfortable using them. **Jingyi, X., & Pamintuan, C. (2025).** have investigated the influencing factors on usage of online learning platforms using Unified Theory of Acceptance and Use of Technology Model. The study addressed there is significant impact on learners' intention to use OLPs while variations are observed on the course selected upon personal interest.

Singhanian, V., et. al. (2023) examined the pedagogical innovations and challenges of online teaching at the undergraduate level in rural higher education institutions across India with focus on how teachers adapted to digital learning during and post covid. The study reported rural teachers has equipped with digital abilities to deliver value and skill-based learning to students belonging to economically disadvantaged areas. However, findings also revealed that majority reported inadequate data

bandwidth and connectivity with 72 percent respondents' dissatisfaction with institutional resources.

Naik, T. et. al. (2024). analysed the key factors influencing the Indian teachers' adoption of technology in education. The three prime drivers for this adoption of technology include: Covid-19 pandemic, National Education Policy 2020 and the influence of social media platforms. Teachers said covid-19 has made them get familiar with Google Meet and Zoom platforms for teaching. They appreciated the Vidya-Dhaan Initiative from DIKSHA Platform for aligning with curriculum content, assessment and teacher training. Open access platforms such as YouTube and WhatsApp gained momentum for content sharing practices. Still, they opined significant challenges persisting in complete adoption of technology. Teachers reported inadequate infrastructure as the major obstacle with insufficient devices hindering the classroom access. They devised comprehensive training and better content curation as the solution for essential integration of technology.

OBJECTIVES

1. Estimate the distribution of surveyed respondents based on gender, age and the academic

background of the respondents they belong to.

2. Assessing the surveyed respondents through sources from which they got to know about e-content and Online Learning Platforms.
3. To analyse the extent of awareness among academics surveyed on the popular e-content initiatives and online learning platforms in international, national and regional zones.
4. To assess the internal consistency and reliability of the measurement scales for the key constructs: awareness, accessibility and usage using Cronbach's Alpha.
5. To examine the association between respondents' demographic characteristics and the levels of awareness, accessibility and usage using Chi-Square Test.
6. Conducting Correlation Matrix Analysis to examine the strength and direction of relationships or inter-relatability among awareness, accessibility and usage.
7. Aim to analyse whether the independent variables: awareness and accessibility have a significant effect on usage and thereby evaluate the overall significance of the

regression model using Regression analysis.

METHODOLOGY

The study adopted purposive sampling selection of non-probability population with the underpinning essence of the respondents either have awareness on e-content initiatives and online learning platforms or have enrolled and pursued a course in online learning platforms. This underlying factor helped the study to figure out and filter the research population based on their extent of awareness, accessibility and use so as to get their real time responses through a structured questionnaire followed by unstructured interview commenting on existing accessibility features, barriers, perceptions and suggestions to improvise the content delivery in existing platforms.

In this context, structured questionnaire was distributed to 90 respondents in the ratio 4:3:2 (Students:Scholars:Faculty) with aforementioned pre-defined purpose comprising of Under-Graduate and Post-Graduate students, PhD Research Scholars and Teaching Faculty across various schools and departments prevailing in the two campuses (Palakalaiperur campus and Khajamalai Campus) of Bharathidasan University in Tiruchirappalli. Of which, 74 responded questionnaires were returned

and considered for the study. While 14 questionnaires were not returned and 2 questionnaires were partially answered were omitted in the study. The data of responded questionnaires were then tabulated in excel and put into analyses using SPSS Software. The data tabulated were the result of this investigation put forth for analyses of the study.

LIMITATIONS OF THE STUDY

1. As the study demand specific information on accessibility and use of econtent and online learning platforms, the study appealed only to the students, research scholars and faculty who were already aware of e-Content initiatives; enrolled and pursued online learning courses via Online Learning Platforms are filtered and considered for the surveyed to get exact opine of responses in each category posed.
2. The study population is geographically confined only to the respondents belonging to various departments in the two campuses: Palakalaiperur Campus and Khajamalai Campus of Bharathidasan University at the time of the study.
3. In certain sect of the research questionnaire distributed, the

respondents were tasked to answer questions in non-singular format, i.e., a respondent is given a privilege to choose multiple choice option for few questions posed to assess their multi-versatility of awareness,

accessibility and usage in this regard. Thus, the percentage reported in certain sect of data in the analyses may vary as to the extent of individual consumption of use.

RESULTS

FIGURE-1: GENDER-WISE DISTRIBUTION OF RESPONDENTS

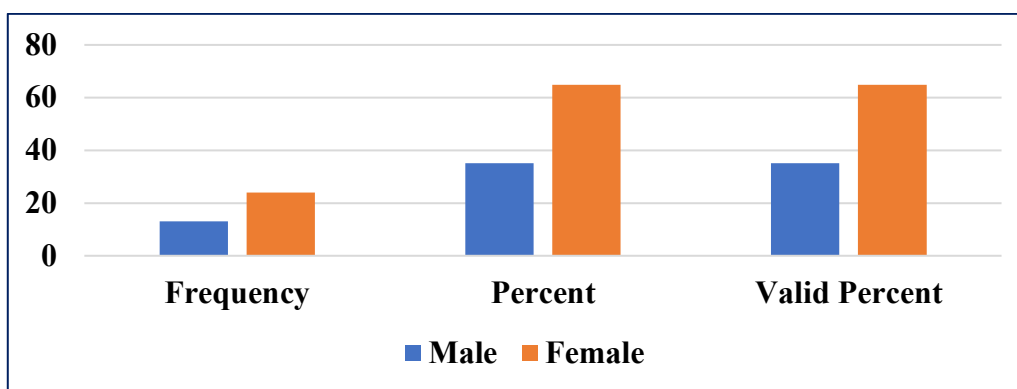


Figure 1 present the gender distribution of the total 74 respondents included in the study. Out of the total sample, 48 respondents (64.9%) are female, while 26 respondents (35.1%) are male. The percentile clearly shows women form the majority with two-third of the study population in the dataset.

FIGURE-2: AGE-WISE DISTRIBUTION OF RESPONDENTS

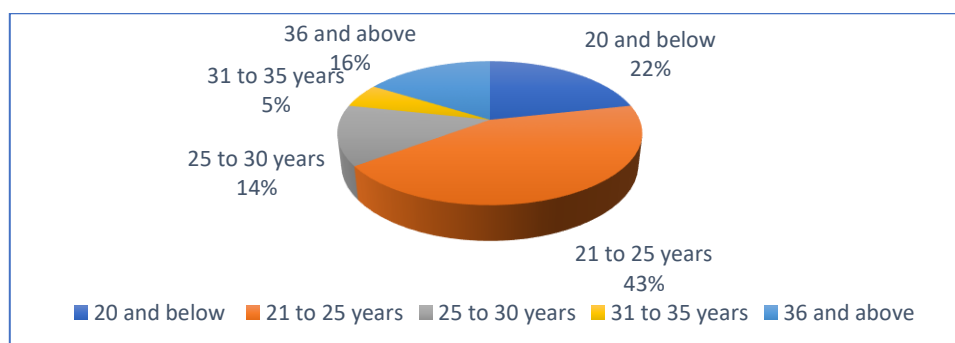


Figure 2 present the age-wise composition of varied distribution of the 74 respondents included in the study. The largest proportion of respondents situate within 21 to 25 years age groups forming the core of the sample.

It is followed by substantial young respondents aged 20 years and below with 16 individuals and 21.6 %. 36 Years and above category accounts moderate share of the sample comprising 12 respondents with 16.2%. While 25 to 30 years age groups include 10 respondents with 13.5% and 31 to 35 years age group estimating 4 respondents with 5.4 % indication minimal participation this age bracket.

The data clearly indicate that the sample is predominantly composed of younger individuals as the percentage distribution shows that nearly two-third of the respondents are aged 25 years and below. It also shows the study is largely reflected by the perspectives, behaviours and information seeking characteristics of the youth.

TABLE-1 & FIGURE-3: NATURE OF ACADEMIC BACKGROUND OF THE RESPONDENTS

Nature	Frequency	Percent
<i>UG</i>	9	12.16
<i>PG</i>	31	41.89
<i>Ph.D.</i>	20	27.03
<i>Faculty</i>	14	18.92
<i>Total</i>	74	100.0

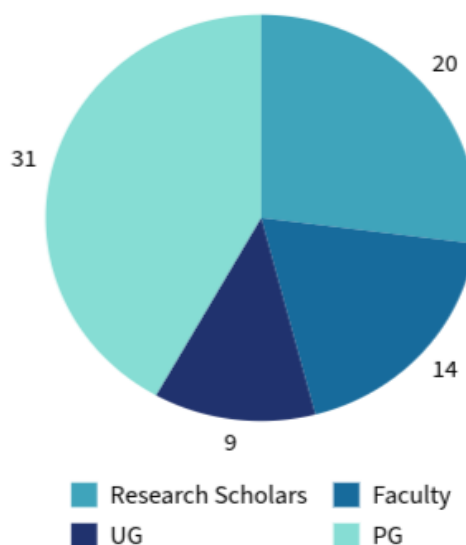


Table 1 and Figure 3 present the distribution respondents based on their academic status.

A total of 74 respondents were categorized into four groups: UG, PG, Ph.D. Scholars and Faculty. The data reveal that the majority of the respondents belong to the Post-Graduate (PG) Category accounting for 31 individuals with 41.89%. The second largest group comprise of Ph.D., with 20 individuals (27.03%) and it

is followed by moderate representation of faculty group with 14 respondents covering 18.92%. while the undergraduate category forms the least representation with 12.16% of the respondents. The distribution clearly shows the pre-dominance of the PG group across frequency and percentage measures.

The findings expose the sample is heavily skewed towards higher education levels particularly postgraduate students and the study primarily reflects the opinions of individual belonging to advance

academic pursuits. The substantial representation of UG, Ph.D. scholars and faculty members further indicate that the sample is academically inclined.

FIGURE-4: SOURCE OF AWARENESS ON E-CONTENT AND ONLINE LEARNING PLATFORMS (OLPs)

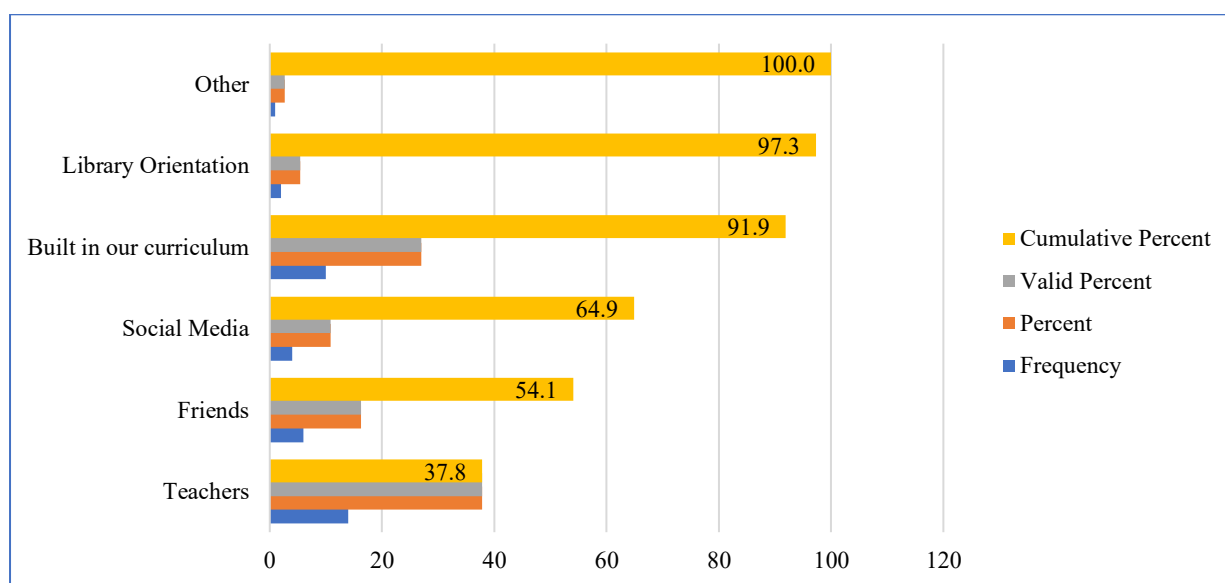


Figure 4 situate how respondents became aware of e-content, based on multiple sources

such as teachers, friends, social media, curriculum integration, library orientation, and others. The data reveals that teachers are the primary source with 28 respondents (37.8%) as they knew about e-content propagated by them. The second most significant source was built into the curriculum accounting for 20 respondents (27.0%). Friends serve as a source for 12 respondents with 16.2% reflecting moderate contribution of awareness by peers. While social media recorded 8

respondents with 10.8% and library orientation and other sources for 4 respondents with 5.4% and 2 with 2.7%.

It can be interpreted that formal academic channels particularly teachers and curriculum are the most influential in creating awareness about e-content because of institutional support and educator involvement in promoting digital learning tools during covid. It is also explored that awareness through informal channel like

friends, library orientation and social media contribute to awareness but the impact is comparatively limited.

TABLE-2: AWARENESS OF E-CONTENT & ONLINE LEARNING PLATFORMS (OLPS)

E-Content Initiatives & Online Learning Platforms (OLPs)					
Particulars		Frequency	Percent	Valid Percent	Cumulative Percent
International Initiatives					
Coursera	Highly Aware	12	16.2	16.2	16.2
	Aware	20	27.0	27.0	43.2
	Somewhat Aware	16	21.6	21.6	64.9
	Undecided	4	5.4	5.4	70.3
	Not Aware	22	29.7	29.7	100.0
Edx	Highly Aware	6	8.1	8.1	8.1
	Aware	12	16.2	16.2	24.3
	Somewhat Aware	10	13.5	13.5	37.8
	Undecided	4	5.4	5.4	43.2
	Not Aware	42	56.8	56.8	100.0
Khan Academy	Highly Aware	18	24.3	24.3	24.3
	Aware	18	24.3	24.3	48.6
	Somewhat Aware	4	5.4	5.4	54.1
	Undecided	4	5.4	5.4	59.5
	Not Aware	30	40.5	40.5	100.0
National Initiatives					
E-PG Pathshala	Highly Aware	10	13.5	13.5	13.5
	Aware	6	8.1	8.1	21.6
	Somewhat Aware	14	18.9	18.9	40.5
	Undecided	6	8.1	8.1	48.6
	Not Aware	38	51.4	51.4	100.0
E-Gyankosh	Highly Aware	8	10.8	10.8	10.8
	Aware	10	13.5	13.5	24.3
	Somewhat Aware	10	13.5	13.5	37.8
	Undecided	10	13.5	13.5	51.4
	Not Aware	36	48.6	48.6	100.0
SWAYAM	Highly Aware	52	70.3	70.3	70.3

	Aware	14	18.9	18.9	89.2
	Somewhat Aware	2	2.7	2.7	91.9
	Undecided	2	2.7	2.7	94.6
	Not Aware	4	5.4	5.4	100.0
Swayam prabha	Highly Aware	20	27.0	27.0	27.0
	Aware	8	10.8	10.8	37.8
	Somewhat Aware	10	13.5	13.5	51.4
	Undecided	2	2.7	2.7	54.1
	Not Aware	34	45.9	45.9	100.0
UGC-CEC	Highly Aware	14	18.9	18.9	18.9
	Aware	14	18.9	18.9	37.8
	Somewhat Aware	12	16.2	16.2	54.1
	Undecided	0	0	0	54.1
	Not Aware	34	45.9	45.9	100.0
E-Yantra	Highly Aware	6	8.1	8.1	8.1
	Aware	4	5.4	5.4	13.5
	Somewhat Aware	14	18.9	18.9	32.4
	Undecided	8	10.8	10.8	43.2
	Not Aware	42	56.8	56.8	100.0
E-Learn	Highly Aware	6	8.1	8.1	8.1
	Aware	14	18.9	18.9	27.0
	Somewhat Aware	18	24.3	24.3	51.4
	Undecided	6	8.1	8.1	59.5
	Not Aware	30	40.5	40.5	100.0
Regional Initiatives					
TN Diksha	Highly Aware	6	8.1	8.1	8.1
	Aware	10	13.5	13.5	21.6
	Somewhat Aware	14	18.9	18.9	40.5
	Undecided	4	5.4	5.4	45.9
	Not Aware	40	54.1	54.1	100.0
TN Kalvitholaikatchi	Highly Aware	14	18.9	18.9	18.9
	Aware	14	18.9	18.9	37.8
	Somewhat Aware	8	10.8	10.8	48.6
	Undecided	2	2.7	2.7	51.4
	Not Aware	36	48.6	48.6	100.0
TN Vagupparai Nokkin	Highly Aware	4	5.4	5.4	5.4
	Aware	12	16.2	16.2	21.6
	Somewhat Aware	10	13.5	13.5	35.1

TN Digital Platform	Undecided	6	8.1	8.1	43.2
	Not Aware	42	56.8	56.8	100.0
	Highly Aware	4	5.4	5.4	5.4
	Aware	12	16.2	16.2	21.6
	Somewhat Aware	14	18.9	18.9	40.5
	Undecided	6	8.1	8.1	48.6
	Not Aware	38	51.4	51.4	100.0
Total		74	100.0	100.0	

Table 2 and Figure 5(a), 5(b) and 5(c) presents the extent of respondents' awareness of e-content and online learning platforms across three different zones - International (Coursera, edX, Khan Academy), National (ePG Pathshala, eGyankosh, SWAYAM, SWAYAM Prabha, UGC-CEC, e-Yantra, e-Learn) and Regional (TN Diksha, TN Kalvi Tholaikatchi, TN Vagupparai Nokkin, TN Digital Platform) initiatives. The analysis is based on five-point Likert measures: Highly Aware, Aware, Somewhat Aware, Undecided, and Not Aware.

In terms of International Initiatives, Khan Academy showing relatively better awareness with 48.6% (highly aware and aware) than Coursera and edX with nearly half of the respondents are aware of this platform. It is followed by Coursera is moderately recognised by the users accounting for 43.2% with 16.2% of highly aware and 27.0% of aware together. While edX has comparatively lower level of

awareness with only 24.3% (highly aware and aware).

With respect to National Initiatives, SWAYAM exhibits very high level of awareness with 89.2% (70.3% highly aware and 18.9% aware). Other initiatives like SWAYAM Prabha, UGC-CEC, e-PG Pathshala, eGyankosh, e-Learn, e-Yantra show moderately lower level of awareness among the study population. In context to awareness of regional initiatives, only TN Kalvi Tholaikatchi has moderate awareness among academics with 37.8%. While TN Diksha, TN Vagupparai Nookin and TN Digital Platforms remain limited awareness with only one-fifth of the population (rounded to 20%) is aware about these initiatives.

The results corroborate that the international platforms demonstrate moderate but uneven awareness. While platforms like Coursera and Khan Academy have gained some recognition, high "not aware" percentages especially for edX

indicate not enough exposure to international initiatives. National initiative shows wide variation in awareness levels.

TABLE- 3: DESCRIPTIVE MEAN AOF WARENESS, ACCESSIBILITY AND USAGE OF E-CONTENT INITIATIVES AND ONLINE LEARNING ACROSS RESPONDENT GROUPS

Variable Category	Item	Students (Mean ± SD)	Scholars (Mean ± SD)	Faculty (Mean ± SD)	Overall (Mean ± SD)
Awareness	Awareness of E-Content	2.40 ± 1.10	2.80 ± 1.20	2.70 ± 1.50	2.51 ± 1.34
	Familiarity with Online Platforms	1.90 ± 0.80	2.10 ± 1.00	2.20 ± 1.20	2.00 ± 1.00
Accessibility	Device Availability	0.50 ± 0.51	0.40 ± 0.49	0.45 ± 0.50	0.46 ± 0.50
	Ease of Access	5.20 ± 1.90	4.80 ± 2.00	4.70 ± 2.10	4.91 ± 2.08
Usage	Frequency of Use	5.50 ± 1.30	5.20 ± 1.50	5.00 ± 1.60	5.11 ± 1.71
	Adoption of Online Learning	5.80 ± 1.40	5.50 ± 1.50	5.20 ± 1.60	5.51 ± 1.46

Figure - 5a: Awareness of International Initiatives

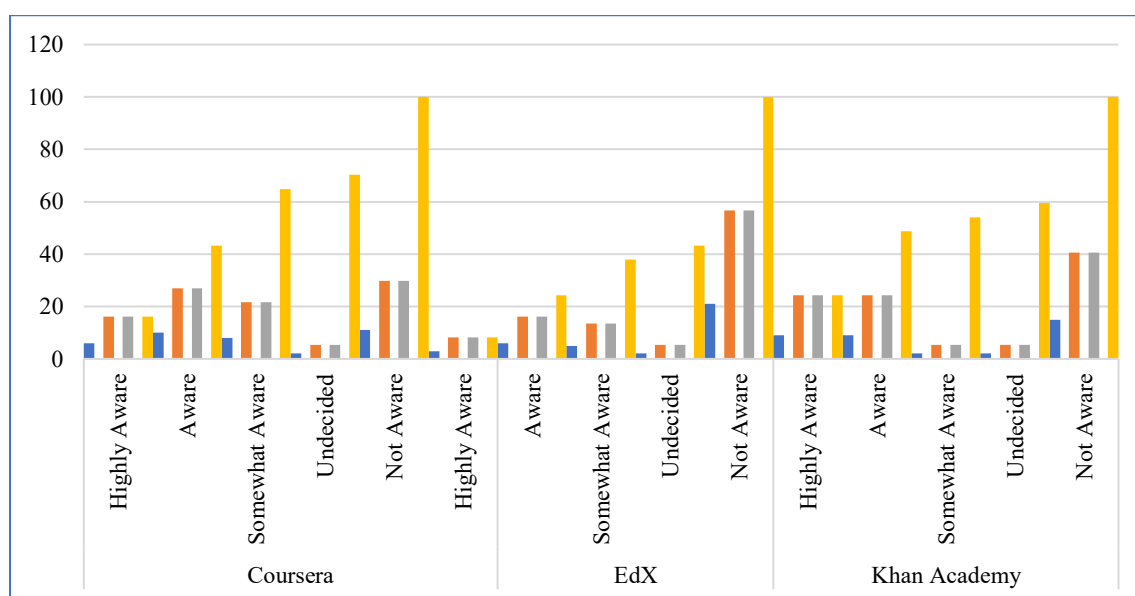


Figure - 5b: Awareness of National Initiatives

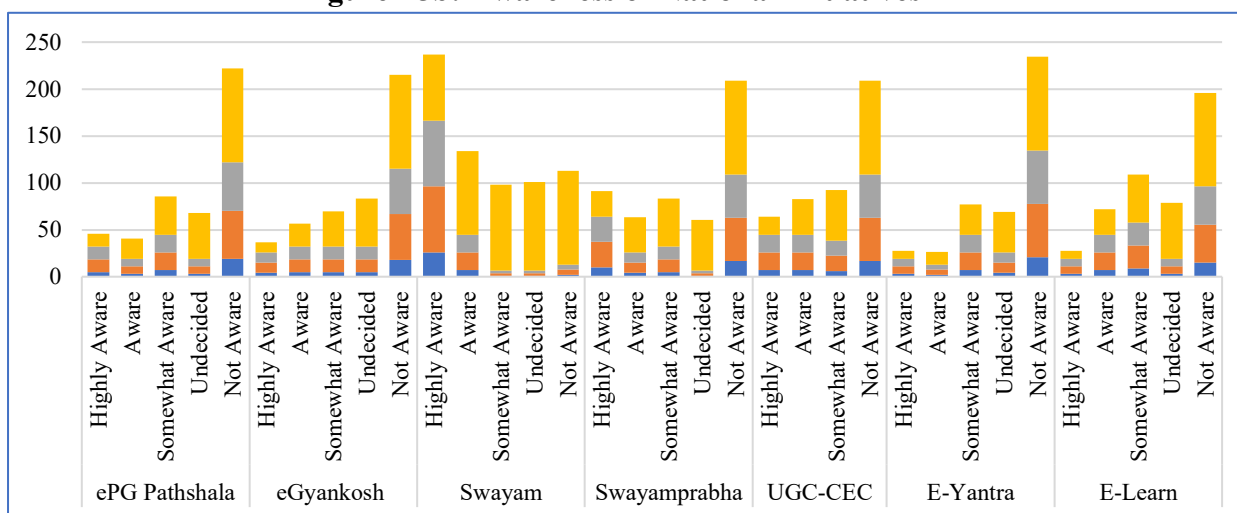
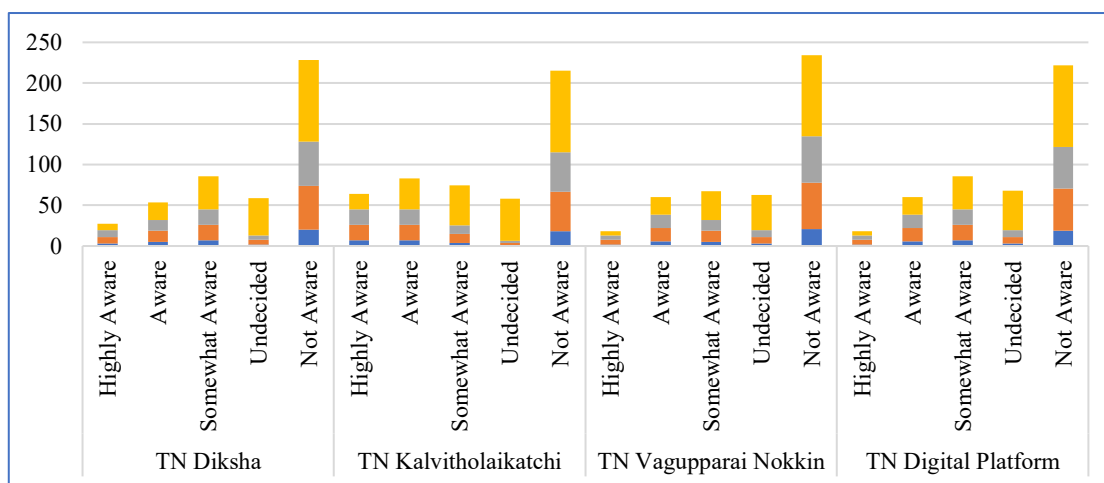


Figure – 5c: Awareness of Regional Initiatives



SWAYAM stands out as the aware and widely recognized national platform whereas other platforms exhibit moderate to low awareness with substantial proportions of respondents unaware of them. This reflects government campaigns and integration of SWAYAM learning has significantly enhanced awareness but not all national initiatives have achieved equal visibility. Regional initiatives demonstrate consistently low awareness levels, with more than half of respondents unaware of most platforms. It is surprising to note that even the relatively better known regional

platform (TN Kalvi Tholaikatchi) does not exceed moderate awareness.

The results also reflects that the awareness appears to be largely influenced by individual imitative rather than formal academic orientation. One platform among national initiatives is highly propagated to use while the other national platforms struggle to achieve equal visibility. Whereas regional platforms indicate limited outreach and needs strong awareness of existing platforms and thereby promoting cum exercising maximal use of

regional platform through academic discourse.

Table 3 illustrates the descriptive mean analysis of students, scholars and faculty in three major dimensions: Awareness, Accessibility and Usage of eContent Initiatives and Online Learning Platforms. The derivations reveals that scholars and faculty have higher awareness and familiarity compared to students. Faculty show slightly greater familiarity with online learning platforms while students have awareness of eContent. The availability of devices in a broader sense exposes consistently low scores across all groups with uneven access to required devices. Ease of access scholars are relatively high among the students. Students exhibit highest levels of usage and adoption followed by scholars and faculty.

The mean scores indicate higher use of online learning platforms across all groups.

The mean variation implies that the exposure to econtent and online learning platforms through persuasion of academic curricula contribute positively to awareness levels for students. Scholars access the platforms for their related material in research while faculty remain the content provider across the platforms. While physical access to devices is limited in academic setting, the individual who access report relatively ease of use implying infrastructure and resource availability offered by the institution remain major concern. With the awareness through academic persuasion, the usage and adoption of econtent and online learning platforms are high among the students as they have relied increasingly on free online academic resources.

TABLE-4: CRONBACH'S ALPHA

Construct	No. of Items	Cronbach's Alpha	Reliability Level
Awareness	17	0.82	Good
Accessibility	10	0.78	Acceptable
Usage	10	0.85	Good

Table 4 displays the reliability analysis of the research instrument using Cronbach's Alpha for three key constructs: Awareness, Accessibility and Usage. Awareness construct shows moderate

reliability and Usage construct demonstrate a highest reliability of internal consistency with an alpha value exceeding the commonly accepted threshold of 0.70. While Accessibility construct shows a low

but acceptable level of reliability with an alpha values close to 0.80. Thus, the Cronbach's Alpha values for all three constructs range from 0.78 to 0.85 which fall within the acceptable to good reliability

range. None of the values fall below the minimum acceptable threshold i.e., 0.70, the research instrument is statistically reliable.

TABLE-5: RESULTS OF CHI-SQUARE TEST FOR AWARENESS, ACCESSIBILITY AND USAGE OF ONLINE LEARNING OF ACADEMICIANS

Role	Aware	Not Aware	Total	Expected Aware	Expected Not Aware	Chi-square (χ^2)	p-value
Awareness of E-Content Initiatives							
Students	30	10	40	15.14	4.86	0.21	= 0.04 → Significant
Scholars	16	4	20	7.57	2.43		
Faculty	10	4	14	5.29	1.71		
Accessibility to Online Platforms							
Students	28	12	40	13.5	6.5	4.88	= 0.030 → Significant
Scholars	18	2	20	6.75	3.25		
Faculty	8	6	14	6.75	0.25		
Usage of Online Learning Platforms							
Students	32	8	40	14.86	5.14	0.64	= 0.028 → Significant
Scholars	14	6	20	7.43	2.57		
Faculty	10	4	14	5.71	1.29		

Table 5 provides the results of Chi-Square (χ^2) test examining the association between respondents' roles (students, scholars and faculty) with awareness, accessibility and usage of econtent initiatives and online learning platforms. The chi-square value of awareness is relatively low but the p-value (0.04) confirms statistically significant

association between the role of respondents and their awareness and thereby revealing awareness levels differ meaningfully across students, scholars and faculty.

In terms of accessibility, students and scholars exhibit higher accessibility with faculty showing comparatively lower accessibility levels. The chi-square value of

accessibility is higher compared to awareness and the p-value with 0.030 also signify statistical relationship between respondent role and accessibility to online platforms. The usage level of online learning platforms among students remains the highest followed by scholars and faculty

as students are more exposed to these platforms through curricula structure and adaptability to digital learning. Despite a relatively small chi-square value, the p-value with 0.028 is confirming significant association between role and usage of online learning platforms.

TABLE-6: CORRELATION MATRIX

Variables	Awareness	Accessibility	Usage
Awareness	1	0.62**	0.71**
Accessibility	0.62**	1	0.68**
Usage	0.71**	0.68**	1

Table 6 reveals the results of the Correlation Coefficient matrix showing the relationships among the three major variables: Awareness, Accessibility and Usage. Correlation coefficient is a measure to analyse the strength and direction of association between the variables. From the Table 6, the results reveal a strong positive correlation between awareness and usage with $r = 0.71$ as higher levels of awareness are associated with increased usage of e-content initiatives and online learning platforms.

Likewise, the correlation between accessibility and usage with $r = 0.68$ is also

strong and positive as such better access through devices, connectivity and ease of use facilitate better usage of these platforms. While the relationship between awareness and accessibility with $r = 0.68$ is moderately strong and positive emphasizing users who are more aware of e-content are likely to experience better accessibility. Thus, all the three key variables: Awareness, Accessibility and usage are positively significant and statistically interrelated with enhancing awareness would directly enhance usage while accessibility act as a facilitating factor.

TABLE-7: ANOVA

Model	Sum of Squares	df*	Mean Square	F	Sig.
Regression	25.42	2	12.71	62.34	0.000**
Residual	16.24	79	0.21		
Total	41.66	81			

** - Degrees of Freedom

Analysis of Variance (ANOVA) test is used to compare the differences in the means of three or more group and thereby determining the statistical relevancy of the assessment. Table 7 shows the ANOVA test results conducted to evaluate the overall significance of the regression model examining the relationship among the study variables.

The regression sum of squares is 25.42 and the residual sum of squares is 16.24 adding to sum of squares of 41.66. The mean square value for regression is 12.71 is comparatively higher than the mean square residual value of 0.21

implying the model is significantly more variance than the unexplained portion. The computed F-statistic value is 62.34 revealing a strong overall model fit. Also, the significance value is less than the standard threshold of 0.05 and the model is statistically significant at a high level ($p < 0.01$). Thus, ANOVA results state that the model is highly significant and reliable in explaining the relationship among the variables under study. The high F-value and very low p-value confirm that the independent variables collectively have a significant effect on the dependent variable and the observed relationships are unlikely to have occurred by chance.

TABLE-8: REGRESSION ANALYSIS

Model	R	R ²	Adjusted R ²		
1	0.78	0.61	0.60		
Predictor	β (Unstandardized)	Std. Error	β (Standardized)	t	Sig.
(Constant)	0.84	0.19	–	4.42	0.000
Awareness	0.45	0.07	0.52	6.43	0.000
Accessibility	0.33	0.08	0.39	5.12	0.000

Table 8 shows the results of regression analysis examining the influence

of predictors (awareness and accessibility) on the outcome (usage of online learning

platforms). It is observed that the $R = 0.78$ signifies a strong positive correlation between the independent variables and the dependent variable. The coefficient of determination ($R^2 = 0.61$) shows that 61% of the variance in usage is explained by awareness and accessibility. The adjusted R^2 value of 0.60 is very close to R^2 and thus the model is stable and significant. The unstandardized coefficient of $\beta = 0.45$ with a standardized beta of 0.52 on Awareness has the strongest influence on usage among the predictors. The influence is further confirmed by the significance between t-value and p-value. Accessibility also shows a significant positive impact with an unstandardized coefficient of $\beta = 0.33$ and a standardized beta of 0.39 as the variable indicates a meaningful predictor comparatively lower than awareness. Therefore, the regression results reveal that both awareness and accessibility have significant impact on usage of e-content initiatives and online learning platforms with awareness being most influential and accessibility as the enabling or facilitating factor.

DISCUSSION

The major findings of the survey study reveal the following results. They are:

- ❖ Women form the majority with 64.9% nearly two-third of the study population in the dataset.
- ❖ Two-third of the respondents nearly 60% are 25 years and below category stating the responses are primarily the opinions of the youth.
- ❖ The study primarily reflects the opinions of individual belonging to advance academic pursuits such as Post-Graduate Students and PhD Research Scholars with a substantial representation of Teaching Faculty and Under-Graduate Students.
- ❖ In terms of awareness of e-content initiatives and online learning platforms among academics, international platforms demonstrate moderate but uneven awareness. While platforms like Coursera and Khan Academy have gained some recognition, high “not aware” percentages especially for edX indicate limited exposure to international initiatives.
- ❖ SWAYAM stands out as the aware and widely recognized national platform whereas other platforms exhibit moderate to low awareness with substantial proportions of respondents unaware of them. This reflects government campaigns and

integration of SWAYAM learning has significantly enhanced awareness but not all national initiatives have achieved equal visibility.

- ❖ Regional initiatives demonstrate consistently low awareness levels, with more than half of respondents unaware of most platforms. It is surprising to note that even the relatively better-known regional platform (TN Kalvi Tholaikatchi) does not exceed moderate awareness.
- ❖ As the values of the construct fall within the acceptable to good reliability range from 0.78 to 0.85, the Cronbach's Alpha of the research instrument is statistically reliable.
- ❖ The Chi-Square Test analysis also reveals that the significant value falls within the range proving there is a significant relationship between role and usage of online learning platforms.
- ❖ Correlation Matrix also shows a positively significant and statistically interrelated with enhancing awareness would directly enhance usage while accessibility act as a facilitating factor.

- ❖ From the ANOVA Test, it is observed that the independent variables collectively have a significant effect on the dependent variable and the observed relationships are unlikely to have occurred by chance.
- ❖ Regression statistics also exhibit that both awareness and accessibility have significant impact on usage of e-content initiatives and online learning platforms with awareness being most influential factor and accessibility as the enabling or facilitating factor.

CONCLUSION

To conclude, the study highlighted that use of e-content initiatives and online learning platforms could significantly transform the landscape of education by enabling enhanced awareness and accessibility of these platforms. Despite fewer setbacks such as technological insufficiency and unstable digital divide, the overall impact of usage on e-Content and online learning platforms are positive and promising. The study could find the desired futuristic scope of usage with efforts to supervise the implementation and ensure equitable access to all learners and

thereby strengthening the future of digital education.

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BIBLIOGRAPHY

1. Abbas, T. M. (2017). Human factors affecting university hospitality and tourism students' intention to use e-learning: A comparative study between Egypt and the UK. *Journal of Human Resources in Hospitality & Tourism*, 16(4), 349-366.
2. AL-Nuaimi, M. N., Al Sawafi, O. S., Malik, S. I., & Al-Marroof, R. S. (2024). Extending the unified theory of acceptance and use of technology to investigate determinants of acceptance and adoption of learning management systems in the post-pandemic era: A structural equation modeling approach. *Interactive Learning Environments*, 32(5), 1710-1736.
3. Ayub, E., Mohamad, S. N. A., Goh, W. W., & Luaran, J. E. (2021, March). A Learning Design Strategy to Develop a Course for Learning at Scale: A Conceptual Framework for a University-Wide Implementation. In *Proceedings of the 2021 2nd International Conference on Education Development and Studies* (pp. 12-21).
4. Bhatia, K. V., Arora, P., & Gupta, S. (2025). Edtech platforms from below: A family ethnography of marginalized communities and their digital learning post-pandemic. *Learning, Media and Technology*, 50(4), 482-496.
5. Chang, J. H., Chiu, P. S., & Lai, C. F. (2023). Implementation and evaluation of cloud-based e-learning in agricultural course. *Interactive Learning Environments*, 31(2), 908-923.
6. Chessa, M., & Solari, F. (2021). The sense of being there during online classes: analysis of usability and presence in web-conferencing systems and virtual reality social platforms. *Behaviour & Information Technology*, 40(12), 1237-1249.
7. Huynh-Cam, T. T., Agrawal, S., Chen, L. S., & Nguyen, Q. A. (2021, July). E-Learning benchmarking in higher education: Methodology literature review. In *Proceedings of the 5th International Conference on Education*

- and Multimedia Technology (pp. 225-233).
8. Jiang, J., Hu, J., & Feng, T. (2025). Does perceived ease of use of online teaching platform facilitate students' learning engagement? The role of self-efficacy of teachers and students. *Asia Pacific Journal of Education*, 1-15.
 9. Jingyi, X., & Pamintuan, C. (2025). Exploring factors influencing online learning platform usage behavior: a comparative study of southeast Asian learners based on the UTAUT model. *Interactive Learning Environments*, 33(9), 5530-5560.
 10. Luo, B. (2020). The influence of teaching learning techniques on students' long-term learning behavior. *Computer Assisted Language Learning*, 33(4), 388-412.
 11. Mansour, E. (2021). Utilization of online learning platforms by LIS Arab faculty members during the coronavirus outbreak. *Journal of Library & Information Services in Distance Learning*, 15(1), 18-40.
 12. Munyaradzi, M., Mildred, D. M., & David, A. (2024). Engaging students online: Readiness of lecturers to use learning management system (LMS) at a technical vocational education and training college. *Community College Journal of Research and Practice*, 48(6), 369-385.
 13. Naik, T., Shankaranarayanan, M. E., Swaminathan, M., Bali, K., & Jain, M. (2024). Examining Factors Influencing Technology Integration in Indian Classrooms: A Teachers' Perspective. *ACM Journal on Computing and Sustainable Societies*, 2(3), 1-29.
 14. Ogunbodede, K. F., & Wiche, H. I. (2022). Nexus of Nigerian academic libraries and online education in the pandemic era. *International Information & Library Review*, 54(3), 216-224.
 15. Ogunji, C. V., Onwe, J. O., Ngwa, E. S., David, E., Olaolu, M., & Cresantus, B. (2022). Higher education and the new normal: implications for sustainable post covid-19 era in Nigerian tertiary institutions. *Cogent Education*, 9(1), 2125206.
 16. Palumbo, E., & Verga, F. (2015). Creation of an integrated environment to supply e-learning platforms with Office Automation features. *Interactive Learning Environments*, 23(6), 766-777.
 17. Pratama, P. M., Efendi, A. N., & Umami, E. E. (2022, November). Design and Development ILMOO: MOOC for Indonesian Language in High School. In *Proceedings of the 7th International Conference on Sustainable Information Engineering and Technology* (pp. 228-232).
 18. Raimi, L., Bamiro, N. B., & Olohunfunmi, A. I. (2026). Global Perspectives on Technology and

- Privacy on Learning Platforms: A Systematic Literature Review.
19. Singhania, V., Mishra, R., Dash, M., & Mishra, D. (2023, April). Pedagogical Innovations and Challenges of Online Teaching: Assessing the Scenario at the UG Level in Rural Higher Education Institutions in India. In Proceedings of the 9th International Conference on Education and Training Technologies (pp. 1-7).
 20. Tam, A. C. F. (2022). Students' perceptions of and learning practices in online timed take-home examinations during Covid-19. *Assessment & Evaluation in Higher Education*, 47(3), 477-492.
 21. Tay, L. Y., Lim, C. P., Lye, S. Y., Ng, K. J., & Lim, S. K. (2016). Open-source learning management system and Web 2.0 online social software applications as learning platforms for an elementary school in Singapore. In *Learning Platforms and Learning Outcomes* (pp. 20-36). Routledge.
 22. Wang, X., Du, Y., Wang, S., & Liu, Y. (2024). An empirical research on factors affecting continuous usage of online course–virtual management as the moderator. *Interactive Learning Environments*, 32(5), 1679-1696.
 23. Yeboah, R. (2022). COVID-19 and tertiary students' knowledge, usage and challenges of using online learning platforms. *Cogent Education*, 9(1), 2135257.
 24. Yousaf, H. Q., Rehman, S., Ahmed, M., & Munawar, S. (2023). Investigating students' satisfaction in online learning: the role of students' interaction and engagement in universities. *Interactive Learning Environments*, 31(10), 7104-7121.