Attitude of students about e-resources for academic and research work in Agriculture universities of Uttar Pradesh

ABSTRACT

e-resources are now an essential part of all intellectual activities in higher education. Realizing the value of e-resources, the majority of Indian colleges have made generous investments to give students access to these materials to assist learning, teaching, and resources. Every country's finest learning and intellectual centres are universities, and university libraries are what fuel all of these centres' intellectual pursuits. The present study aims to study on attitude of students(Post-Graduate and Ph.D level) about e-resources in Academic and Research work of agriculture universities of Uttar Pradesh**.** The study was conducted during 2022 in the state using a structured questionnaire and data were collected through Online Google Form. About 240 responses were received and analysed. Out of total respondents' 26 percent were females while 74 percent were males, 23-29 years of age (57.50%) and 46% belonged to rural background. To measure the attitude of students towards e-resources, thescalewasdeveloped by the investigator fordatacollectionfromthestudents. Majority of the students had medium level of attitude. Studentsfrom four agriculture universities**,**had more or less similar attitude towards e-resources which might be due to more or less same awareness about various e-resources available in their universities. It was found that most of the students strongly agreed with the fact that "e-resources are useful to update the knowledge globally" with 92 MPS.Students of agriculture universities had a positive and favourable attitude towards e-resources but required proper exposure and training at the right time for the better utilization of all e-resources.

Key words: Attitude,e-resources, Wikipedia, ICT and research work

INTRODUCTION

Over the last several years, a significant transformation has been noticed in collection, development policies and practises. Print medium is increasingly giving way to the electronic form of materials.Electronically stored information is referred to as a "e-resource," and it can be accessed through electronic networks and systems. e-resources

are now an essential part of all intellectual activities in higher education.There's no doubt that printed form of books, journals, magazines are important, convenient to use i.e physically holding books sets the mood right for reading. It somehow enables you to read better and longer and also saved for life time once you own them. However, when we look into the harm traditionally printed books cause to our environment, learning to read digitally is totally worth it. It will reduce the effect these traditionally printed resources have on the environment by substituting traditionally printed resources with electronic resources (e-resources).The environment can finally be saved by taking action and switching to utilising electronic resources rather than conventionally printed items. In addition to using less resources than printed materials, electronic resources have a lower carbon footprint than those of printed goods. E-resources are ultimately the best option for a sustainable planet because of their lower carbon impact. E-resources are an easy approach to protect the environment because they don't use a lot of electricity to operate. The fact that e-resources are less polluting than traditionally printed materials is another reason why they are better for the environment.On your electronic gadgets, e-resources merely take up space. It doesn't need as much energy to be preserved as printed materials need. E-resources are ideal for the environment because they cannot be dumped on land. More than 60% of people on the planet have access to digital devices (**Shenmare,2018).** As a result, choosing electronic materials is simpler than ever. Even while traditional printed materials are still widely used today, we can all do our part to protect the environment by favouring electronic resources.

Realizing the value of e-resources, the majority of Indian colleges have made generous investments to give students access to these materials to assist learning, teaching, and resources. Although universities have made significant investments in the infrastructure for teachers, researchers and students to use electronic resources, there have been relatively few attempts to explore attitude of students about e-resources in universities and colleges.

Hence, a study was conductedby KumariAsha, H.C Singh, Ashwani Kumar Verma and Rohit (2022) with the following research objectives.

(1) To know about the Socio-economic and Academic status of students(Post-Graduate and Ph.D. level).

(3) Statement wise Attitude of students (Post-Graduate and Ph.D. level) towards e-resources.

(4) Comparison of Attitude among the students (Post-Graduate and Ph.D. level) of selected agriculture universities

Considering the importance of the factors selected to be studied with reference to the objectives of the present study, the hypotheses for this study were framed both,in null and alternate forms as follows:

Null hypothesis-

H_0:There is no significant difference among the students (Post-Graduate and Ph.D level) with respect to their attitude towards e-resources.

Alternate Hypothesis -

H_1:There is significant difference among the students (Post-Graduate and Ph.D level) with respect to their attitude towards e-resources.

Purpose of this research: The current study is anticipated to give government and non-government organisations useful information about user knowledge, attitude and access to e-resources as well as how to increase their collection and utility.

METHODOLOGY

The information in this regard is explained under the following heads.

Type of research : This is basically abehaviouralor Social research

Research design: Ex-post facto research design was adopted in the investigation because it was assumed that the variable manifestations have already happened and that no variable could be changed.

Number of samples/respondents: The sample size comprised of the 240 respondents from all the four selected universities.

Research steps:

The state of Uttar Pradesh was purposively selected for study. Out of five Agriculture universities in the State, four universities, which had been operating for the last ten years were selected for study. Only the agriculture faculty was specifically chosen from among them since PG and Ph.Dprogrammes have been successfully offered by this faculty for the past 10 years. Sixty students (Post-Graduate and Ph.D. level) from each designated college were chosen at random from the list that had been created. In total, 240 Post Graduate and Ph.D. students made up the study's sample used.

To know the attitude of respondents towards e-resources,an arbitrary scale was developed that contains a set of statements under the various categories. A tentative list of 66 statements consisting 46 positive and 20 negative statements were drafted keeping in view the applicability or item suited to the area of the study.Negative statements refer to those statements which show unfavourable attitude of the respondents towards e-resources whereas positive statements show their favourable attitude towards e-resources.The statements were meticulously corrected in accordance with the **(Likert, 1932)** and **(Edwards,1957).** The statements were edited with the utmost care to ensure that they would measure the intended outcomes. The statements that did not fit the stated criteria, were confusing, or were unimportant were discarded. Ultimately, the final scale consisted of 17 statements, out of which 14 positive and 3 negative. The statements were administered on a five point continuums as followed by **(Likert 1932)***viz.*, Strongly agree, Agree, Undecided, Disagree and Strongly disagree with a score of 5,4,3,2 and 1, respectively for positive statements and reverse scoring for negative statements.The maximum score amounted to 85 and minimum score was 17.

Data collection techniques: Considering the different locations of the students, a structured questionnaire was designed using an online survey tool viz., Google Form for collecting data.Questionnaires were sent through g-mail and social media platforms like WhatsApp.

Data analysis techniques:(1)Frequency, percentage, Arithmetic mean and standard deviation were used to know about the socio-economic and academic status of the students.

$$\text{Percentage} = \frac{\text{Score obtained}}{\text{Total obtainable score}} \times 100$$

(2)The total attitude score of each respondent was obtained by adding all the scores of their responses of all the statements. Thereafter, the scores of each individual was calculated and categorized into three categories viz. Low category (<65.37 score), Medium category(65.37-77.23 score) and High category(>77.23 score) using mean and standard deviation.

Arithmetic mean :

$$X = \frac{\Sigma X}{N} \times 100$$

Where,

X = Arithmetic mean

ΣX = Total score obtained

N = Total number of observations

Standard deviation:

$$S.D. = \sqrt{\frac{1}{n} - 1\left(\sum x_i^2 - \frac{(\sum x_i)^2}{n}\right)}$$

Where,

S.D. = Standard deviation

Σx_i^2 = Sum of squares of x observation

$(\Sigma x_i)^2$ = Square of sum of x observation

n = Size of sample

(3) Attitude of respondents mean percent score (MPS) for each statement was calculated and ranked accordingly.

$$MPS = \frac{\text{Total score obtained}}{\text{Maximum obtainable score}} \times 100$$

(4)In order to find out the significant difference between the respondents of selected universities about attitude towards use of e-resources, Analysis of Variance-One way method was applied and interpretations was done accordingly.

ANOVA (one-way) testformula is used as follows:

F = MSB/MSW

Where,

F = ANOVA coefficient

MSB = Mean sum of squares between the groups

MSW = Mean sum of squares within the groups

$$\mathrm{MSB} = \frac{\mathrm{SSB}}{\mathrm{df_B}} \quad \text{and} \quad \mathrm{MSW} = \frac{\mathrm{SSW}}{\mathrm{df_W}}$$

Now,

$$\mathrm{SSB} = \sum_{j=1}^{k} n_j \left(\bar{x}_j - \bar{x}\right)^2 \quad \text{and} \quad \mathrm{SSW} = \sum_{j=1}^{k} \sum_{i=1}^{n_j} \left(x_{ij} - \bar{x}_j\right)^2$$

$$\mathrm{df_B} = k - 1 \quad \text{and} \quad \mathrm{df_W} = N - k$$

Where,

SSB = Sum of squares between the groups

SSW = Sum of squares within the groups

df = Degrees of freedom

k = The number of groups

N = Total number of observations across all groups

Microsoft Excel and Statistical Package for Social Science (SPSS) were used to analyze the data.

RESULT AND DISCUSSION

(1)The basic socio-economic and academic status of the respondents is presented in Table 1:

It was found that the majority of the respondents were males (74%); had 23-29 years of age(57.50%):Rs.1,00,000 to 6,00,000/ annual family income(54.58%): belonged to rural background(46%): had medium level of competence(53%): 54% students received no training : parents occupation was Government jobs (31%) and 39% students fathers were Graduate.

Table:1Socio-economic and Academic status of students

N=240

Characteristics	**Frequency**	**Percentage**
Gender		
Male	178	74.17
Female	62	25.83
Age		
< 23 years	52	21.67
23-29 years	138	57.50
>29 years	50	20.83
Annual Income		
< 1,00,000	53	22.08
1,00,000-6,00,000	131	54.58
> 6,00,000	56	23.33
Family background		
Rural	111	46
Semi-Urban	72	30
Urban	57	24
ICT Competence		
Low	53	22
Medium	126	53
High	61	25
Training received		
No	129	54
Yes	111	46
Family occupation		
Farming	62	26
Farming +other occupation	49	20
Private sector /Business	55	23
Govt. sector	74	31
Fathers Education		
Ist -Middle school	41	17
Ninth -Higher secondary school	54	23
Graduation	94	39
Above Graduation	51	21

Similar studies also reported that majority of respondents' families (40%) were engaged in farming and belonged to rural areas, had 23-29 years of age, medium level of annual family income, had been exposed to training which is required to use of e-resources(**Chaubey, 2015; Oresanya and Oresanya,2016; Yadav,2018**;**Mishra, 2020).**Few studies revealed that majority of the respondents were female (61.98%); and residing in Urban areas(**Meinam et. al., 2023).**

(2) Classificationofstudents(Post-GraduateandPh.D. level)accordingtotheirlevelofAttitudetowardse-resources:

It was found that the majority (58.75%) of the students of agriculture universities in Uttar Pradesh had medium level of attitude followed by 23.75 per cent of them with the high level of attitude and rest 17.50 per cent of them were found with low level of attitude (Table 2).

Table2 Classificationofstudents(Post-GraduateandPh.Dlevel)accordingtotheirlevelofAttitutetowardse-resources

N=240

S.No.	Attitudelevel	CSAUAT,Kanpur		ANDUAT,Ayodhya		SVPUAT,Meerut		SHUATS,Prayagraj		Total	
		f	%	f	%	f	%	f	%	f	%
1.	Low(<65.37score)	13	21.67	9	15	8	13.33	12	20	42	17.50
2.	Medium(65.37-77.23score)	34	56.67	40	66.67	35	58.33	32	53.33	141	58.75
3.	High(>77.23score)	13	21.66	11	18.33	17	28.34	16	26.67	57	23.75
	Total	60	100	60	100	60	100	60	100	240	100

$\overline{X}$=71.29 s.d =5.92

Thereasonforthevastmajorityofthestudentswithapositiveattitudetowardse-resourcesmightbethattheyweremorefocusedontheiracademicandresearchactivitiesandunderstoodthescopeofICT/e-resourcesinthepresentandfuturetimetodeveloptheircareer.Similarfindingshavealsobeenreportedby**Sivathaaram*etal.*(2014),Jogan and Hoovinbhavi**

(2016),OresanyaandOresanya(2016),Mishra(2020) andPanneerdas (2022)whoindicatedthatmajorityofthestudentshadapositiveattitudetowardsonlineshopping.

(3) StatementwiseAttitudeofstudents(Post-GraduateandPh.D. level)towardse-resources.

AperusalofdatapresentedinTable3reveals that most of the students strongly agreed with the fact that “e-resources are useful to update the knowledge globally” with 92 MPS, and it was ranked first by the students, this was followed by the statements namely “e-resources are useful in improving our professional competence by providing appropriate knowledge about that particular profession” and “e-resources are very effective in providing current information in their respective disciplines” with 91, 90.17MPS and ranked second and third, respectively by the students. Thus, it can be concluded that students of agriculture universities had a positive and favourable attitude towards e-resources but require proper exposure and training at the right time for the better utilization of all e-resources.

Table3StatementwiseAttitudeofstudents(Post-GraduateandPh.Dlevel)towardse-resources

N=240(Multipleresponses)

S.No.	Attitude statements	CSAUAT, Kanpur		ANDUAT, Ayodhya		SVPUAT, Meerut		SHUATS, Prayagraj		Total	
		MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank
1.	e-resources are unable to meet the increasing demands of scholars	71	XV	64	XVI	71	XVI	73	XV	69.75	XV
2.	Maximum use of e-resources for academic purposes	83.67	XII	84.67	XIII	84.33	XIII	81	XIV	83.42	XIII
3.	Practical use of e-resources like e-books, e-journal can give desire and relevant information	85	XI	87.67	VIII	89.67	IV	86.33	IX	87.17	IX
4.	Electronic information resources(EIR) offer today's students different opportunities from their predecessors	83.33	XIII	85	XII	85	XII	83.67	XII	84.25	XII
5.	Using EIR (electronic information resources) is not as exciting as using print resources	60.33	XVII	62.33	XVII	64.33	XVII	65.67	XVII	63.17	XVII
6.	Seeking information through internet is easy process	87.33	VIII	89.67	V	89	VII	89	IV	88.75	V
7.	Providing e-resources by username and password can be easily hacked by anyone	65	XVI	66	XV	72.33	XV	73	XV	69.08	XVI
8.	e-resources are useful in improving our professional competence by providing appropriate knowledge about that particular profession	91.33	I	90	IV	90.33	II	92.33	I	91	II
9.	e-resources allow users to access and modify the information in their desired format	80	XIV	78.33	XIV	83	XIV	82.67	XIII	81	XIV
10.	e-resources have the potential to conserve fragile/precious original materials	88.33	VI	88	VII	86.67	XI	87.67	VI	87.67	VIII
11.	e-resources are very effective in providing current information in their respective disciplines	89	III	91	II	90	III	90.67	II	90.17	III
12.	e-resources help to contact the authors /editors through email for further information	86.67	IX	86.67	X	87.67	IX	87	VIII	87	X
13.	e-resources help to provide reference materials anytime for successful completion of assignments	89	III	89	VI	89.67	IV	88.33	V	89	IV
14.	Different e-resources enable the user easy search of required information	89	III	87.67	VIII	89.33	VI	87.33	VII	88.33	VI
15.	e-resources are updated easily with new articles and journals	88	VII	90.33	III	88	VIII	86.33	IX	88.17	VII
16.	e-resources are useful to update the knowledge globally	90.67	II	92.67	I	94	I	90.67	II	92	I
17.	e-resources help the readers to access the information quickly compared to print material	85.33	X	86.67	X	87.33	X	84.67	XI	86	XI

Thus,itcanbeconcludedthatstudents(Post-GraduateandPh.D. level)ofagricultureuniversitieshadapositiveandfavourableattitudetowardse-resourcesbutrequireproperexposureandtrainingattherighttimeforthebetterutilizationofalle-resources.Thepresentfindingsareinlinewiththefindingsof**Kumbar (2006**),**Radjagopal and Chinnasamy (2012)**, **Novamaka (2014), Sepahpanah*etal.*(2015),Oresanya and Oresanya (2016**),**Viswanathan and Sasireka (2016),Kumar and Anjaiah (2017),Anhwere (2018), Mishra(2020) and Olatoye et al. (2020)**whoindicatedthatmajorityofthescholarsagreedthat Electronicinformationsourcesprovidepredecessorsdifferentopportunitiesforcareerdevelopment and-resourcesmakelifeeasierandcomfortablebye-shopping,e-ticket,e-bankingetc. Whereas, **Borthakur and Chandra (2011)**reported that majority of respondents (90%) viewed viruses, hackers, and pornographic websites as the three biggest drawbacks of using the internet, followed by misuse (80%), harm to Indian culture (70%), time wastage (60%) and contribution to the web world (50%).

(4) ComparisonofAttitudeamongthestudents(Post-GraduateandPh.D. level)ofselectedagricultureuniversities:

Analysis of Variance-One way test (F-test) was used for comparison of students. Perusal of the data presented in Table 4 shows that calculated F value was 0.66, which is found to be less than the tabulated value (2.64)which is statistically non-significant.

Table 4.ComparisonofAttitudeamongthestudents(Post-GraduateandPh.D. level)ofselectedagricultureuniversities

Universities	Count	Sum	Average	Variance
CSAUAT,Kanpur	60	4239	70.65	36.23
ANDUAT,Ayodhya	60	4259	70.98	30.56
SVPUAT,Meerut	60	4325	72.08	34.52
SHUATS,Prayagraj	60	4288	71.47	39.95

SourceofVariation	SS	Df	MS	F	Fcrit
BetweenGroups	69.85	3	23.28	**0.66**^{NS}	2.64
WithinGroups	8334.15	236	35.31		
Total	8403.99	239			

NS: Non-significant {F(0.66)<F crit(2.64)}

Thus,thenullhypothesis(H_0)"thereisnosignificantdifferenceamongthestudents(Post-GraduatePh.D.)withrespecttotheirattitudetowardse-resources"wasacceptedandalternatehypothesis(H_1)wasrejected.Itreferredthatstudentsfromfouragricultureuniversitieshadmoreorlesssimilarattitudetowardse-resources.Theprobablereasonforsimilarnatureofattitudeofstudentsofselecteduniversitiesmaybethattheypossessedmoreorlesssameawarenessaboutvariouse-resourcesavailableintheiruniversities.The similar findings have been reported by **Mishra(2020).**

CONCLUSION

It was found that majority of the students of agriculture universities in Uttar Pradesh were male, had 23-29 years of age, Rs.1,00,000 to 6,00,000/ annual family income, belonged to rural background. Majority of the students had medium level of attitude. Studentsfrom four agriculture universities**,**had more or less similar attitude towards e-resources which might be due to more or less same awareness about various e-resources available in their universities. Students of agriculture universities had a positive and favourable attitude towards e-resources but require proper exposure and training at the right time for the better utilization of all e-resources.

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