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Extent and utilization pattern of e-resources among postgraduate students of RAJUVAS, Bikaner

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Abstract

The present investigation on 90 postgraduate students was conducted in purposely selected all the constituent veterinary colleges of the Rajasthan University of Veterinary and Animal Sciences (RAJUVAS), Bikaner with the purpose to know the extent and pattern of utilization of e-resources. The study results revealed that majority of the postgraduate students (68.89%) of RAJUVAS, Bikaner fell in the medium category of extent of utilization of e-resources, followed by 17.78 per cent with low level of utilization of e-resources and the rest (13.33%) of the respondents had a high level of utilization of e-resources in all the three constituent colleges of the university. It was reported that the postgraduate students of the RAJUVAS were mostly using e-resources for the study purpose (MPS 96.67), followed by the purpose of communication (MPS 96.29) and keeping themselves up-to-date about the subject (MPS 95.92). Further, the most preferred format of using e-resources among the postgraduate students was the PDF with 98.89 MPS and the most important factor that influence the usage of e-resources among the postgraduate students was easier access to information to an extent of 97.78 MPS.

Keywords: E-resources, extent and utilization, postgraduate students, veterinary university

Introduction

Electronic resources are more useful in the present and future time scenario, due to their inherent capabilities for manipulation and searching, providing information access is cheaper to acquiring information resources, saving in storage and maintenance etc. and sometimes the electronic form is the only alternative. It includes a range of technologies starting from e-book, e-journal, e-zine, ETD, e-newspaper, CD-ROM and database up to modern technologies like mobile phone, multimedia, internet and satellite-based communication systems. In recent times, there is a visible shift from old ways of delivering information to modern ways of information delivery. Today e-resources have become backbone of every intellectual activity of higher education. Realizing the importance of the e-resources most of the universities in India liberally investing to provide access to these resources to support learning, teaching and research. In modern times, access to information is more relevant for academic and research work in all higher institutions.

Universities are the higher intellectual hubs to transfer the knowledge and understanding of ideas and values to students and research scholars through various intellectual means and library is one of the important tools in the both the teaching and learning (T-L) process. Library is a repository of resources and act as an integral part of the educational system whose primary function is to serve the users i.e., students, faculty, researchers and staff (Lang, 2008). Today, the university libraries are the main focal point where every reader can get exhaustive and pinpoint information at any time with the implementation of e-resources. However, basic computer skills are needed to postgraduate students to exploit desired information in their learning and research process. The internet has become an important component in academic institutions as it enables scholars and academic institutions to disseminate information to a wider audience around the globe through having websites and a way to search them and organize the output (Madhusudhan, 2007) [3].

Materials and Methods

The present study was conducted in purposely selected all the constituent veterinary colleges of the Rajasthan University of Veterinary and Animal Sciences (RAJUVAS), Bikaner i.e., College of Veterinary and Animal Science, Bikaner, College of Veterinary and Animal Science, Navania, Udaipur and Post Graduate Institute for Veterinary Education and Research,

Jaipur. Rajasthan state comprises of single veterinary university namely Rajasthan University of Veterinary and Animal Sciences (RAJUVAS) and has its headquarters in the Bikaner district. For the selection of colleges, all the constituent veterinary colleges of RAJUVAS, Bikaner were selected purposely based on postgraduate programmes running in the campuses. For the selection of respondents, a comprehensive list of all the postgraduate students who were engaged in masters' degree programme in various disciplines was prepared from the selected veterinary colleges. From the list so prepared, 30 postgraduate students were selected from each identified college with help of disproportionate stratified random sampling technique. Thus, a total of 90 postgraduate students were included in the sample of the study.

To determine the extent of use of e-resources by the postgraduate students of RAJUVAS, Bikaner, a separate interview schedule was developed. The schedule consists of 21 items as various e-resources selected for the present study which are common in use among the students for higher education. In the present study, the pattern of utilization of e-resources was operationalized as the pattern of usage of e-resources in communication of the post graduate students that

includes preference of usage of e-resources, purposes for using e-resources, places of access e-resources, preferred format of using e-resources and factors affecting the usage of e-resources for study and research purpose. Further, to measure the pattern of utilization of e-resources by the respondents a separate interview schedule was developed which was divided into five sub-sections.

Results and Discussion

Extent of utilization of e-resources by postgraduate students

A perusal of data presented in Table 1 indicates that 80.00, 50.00 and 76.67 per cent of the postgraduate students had medium extent of utilization of e-resources in CVAS, Bikaner, CVAS, Navania and PGIVER, Jaipur, respectively. Further, 16.67, 23.33 and 13.33 per cent respondents had low extent of utilization of e-resources in CVAS, Bikaner, CVAS, Navania and PGIVER, Jaipur, respectively. While, 3.33, 26.67 and 10.00 per cent of postgraduate students had high extent of utilization of e-resources in CVAS, Bikaner, CVAS, Navania and PGIVER, Jaipur, respectively.

Table 1: Distribution of postgraduate students according to their utilization of e-resources

S.N.	Utilization of e-resources	Mean ± S.D.	CVAS Bikaner (n=30)		CVAS Navania (n=30)		PGIVER Jaipur (n=30)		Total (n=90)	
			F	%	F	%	F	%	F	%
1.	Low (<43)	49.35±7.37	5	16.67	7	23.33	4	13.33	16	17.78
2.	Medium (43 to 57)		24	80.00	15	50.00	23	76.67	62	68.89
3.	High (>57)		1	3.33	8	26.67	3	10.00	12	13.33

F= frequency, %= per cent

The pooled analysis of the sample reveals that majority of the veterinary postgraduate students (68.89%) of RAJUVAS, Bikaner had shown medium extent of utilization of e-resources, it was followed by 17.78 per cent with low extent of utilization of e-resources whereas, the rest of the respondents (13.33%) reported to have high extent of utilization of e-resources in all the constituent veterinary colleges of the university. It is concluded that more than three-fourth of the total respondents in the study sample used the e-resources to medium extent for their various purposes including academic and research works. The present findings of the study are in conformity with the findings of Meena (2013) [5], Samim (2019) [7] and Mishra (2020) [6].

Pattern of utilization of e-resources by postgraduate students

Preference to use of e-resources by postgraduate students

The pooled analysis of the data presented in the Table 2 reveals that the postgraduate students of RAJUVAS, Bikaner

used e-mail (MPS 96.67) with highest preference and ranked first in the order. It was followed by use of mobile apps and Wikipedia (MPS 94.81 each) and e-chat (MPS 93.33) and as such were assigned second and third ranks in the hierarchy, respectively. Further, the e-resources *i.e.*, offline portable computer database, e-payment, e-shopping, e-map, e-ticket, e-banking, websites/web portals and WhatsApp web were used by the respondents with the extent of 92.96, 92.59, 92.22, 91.11, 89.62, 87.78, 87.03 and 85.92 MPS and were accorded ranks from 4th to 11th, respectively. Similarly, the e-resources *viz.*, e-library, e-books, ETD's, e-newspaper, e-journals and e-magazine/bulletin were preferred to use by the respondents with the extent of 78.15, 75.18, 74.81, 72.22, 67.78 and 65.55 MPS, respectively and as such were assigned ranks from 12th to 17th, respectively. Surprisingly, the respondents reflected low preference to the e-resources namely e-analysis of data, information kiosk and e-reprints with the extent of 47.40, 37.78 and 27.40 MPS in the study area hence assigned last three ranks.

Table 2: Preference of use of e-resources by postgraduate students

S.N.	E-resources	CVAS Bikaner (n=30)		CVAS Navania (n=30)		PGIVER Jaipur (n=30)		Total (n=90)	
		MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank
1.	Websites/web portals	82.22	X	92.22	VI	86.67	VI	87.03	X
2.	E-journals	66.67	XII	67.78	XII	68.89	XIII	67.78	XVI
3.	E-books	74.44	XI	72.22	XI	78.89	IX	75.18	XIII
4.	E-newspaper	63.33	XIII	78.89	VIII	74.44	XI	72.22	XV
5.	E-reprints	23.33	XVII	38.89	XVI	20	XVI	27.40	XX
6.	ETD (Electronic Thesis and Dissertation)	87.78	VII	53.33	XIII	83.33	VIII	74.81	XIV
7.	E-magazine/ bulletin	57.78	XIV	67.78	XII	71.11	XII	65.55	XVII
8.	Information kiosk	32.22	XVI	45.55	XV	35.55	XV	37.78	XIX
9.	Offline portable computer database	97.78	II	85.55	VII	95.55	I	92.96	IV
10.	E-analysis of data	44.44	XV	48.89	XIV	44.89	XIV	47.40	XVIII

11.	E-payment	90	V	94.44	IV	93.33	II	92.59	V
12.	E-chat	91.11	IV	95.55	III	93.33	II	93.33	III
13.	Wikipedia	95.55	III	95.55	III	93.33	II	94.81	II
14.	E-map	88.89	VI	92.22	VI	92.22	III	91.11	VII
15.	E-ticket	85.55	VIII	95.55	III	87.78	V	89.62	VIII
16.	E-shopping	91.11	IV	94.44	IV	91.11	IV	92.22	VI
17.	E-banking	85.55	VIII	93.33	V	84.44	VII	87.78	IX
18.	E-library	84.44	IX	73.33	X	76.67	X	78.15	XII
19.	Mobile Apps	95.55	III	96.67	II	92.22	III	94.81	II
20.	WhatsApp Web	84.44	IX	76.67	IX	86.67	VI	85.92	XI
21.	E-mail	98.89	I	98.89	I	92.22	III	96.67	I

MPS= Mean Percent Score

The study findings regarding the preference of use of e-resources by veterinary postgraduate students of RAJUVAS, Bikaner inferred that the postgraduate students of RAJUVAS, Bikaner used the e-resources with varying preferences according to their level of awareness, availability, access and ease of operation about the e-resources. Further, there is an ample scope of promotion of the e-resources among the students which reflected low preference of use in the study. The similar findings were observed in the study of Meena (2013) ^[5], Samim (2019) ^[7] and Mishra (2020) ^[6].

Purpose of using e-resources by post graduate students

The overall analysis of the data presented in the Table 3 indicates that the veterinary postgraduate students of RAJUVAS, Bikaner mostly used e-resources for the study purpose (MPS 96.67) and ranked first in the hierarchy, followed by the purpose of communication (MPS 96.29) and

keeping themselves up-to-date on the subject (MPS 95.92) and were assigned second and third ranks, respectively. Further, the other purposes of using e-resources *i.e.*, research purpose, online banking/shopping, seeking information in the area of interest and specialization, professional and personality development, leisure/relaxation/time pass, preparing presentation and assignment, accessing general information, attending webinar/workshop/conference/etc., writing and publishing articles and research papers, accessing online data bases and data analysis were recorded to be 92.96, 90.74, 90.37, 90.00, 89.25, 89.25, 85.92, 80.37, 75.55 and 64.81 MPS, respectively by the postgraduate students of RAJUVAS, Bikaner. The above findings of the study are similar with the findings of Madhusudhan (2010) ^[4], Thanuskodi (2012) ^[8], Beniwal (2016), Samim (2019) ^[7] and Mishra (2020) ^[6].

Table 3: Purpose of using e-resources by the postgraduate students

S.N.	Purpose of utilization	CVAS Bikaner (n=30)		CVAS Navania (n=30)		PGIVER Jaipur (n=30)		Total (n=90)	
		MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank
1.	For research purpose	93.33	III	93.33	IV	96.67	I	95.55	IV
2.	For study purpose	97.78	II	97.78	I	94.44	II	96.67	I
3.	For accessing online data bases	72.22	VIII	78.89	VIII	75.55	IX	75.55	XII
4.	For writing and publishing articles and research papers	81.11	VII	74.44	IX	85.55	VI	80.37	XI
5.	Keeping yourself up-to-date on the subject	98.89	I	94.44	III	94.44	II	95.92	III
6.	For professional and personality development	88.89	V	93.33	IV	88.89	V	90.37	VII
7.	Seeking relevant information in the area of interest and specialization	91.11	IV	67.5	XI	91.11	IV	90.74	VI
8.	For preparing presentation and assignment	91.11	IV	94.44	III	82.22	VIII	89.25	IX
9.	For data analysis	61.11	IX	73.33	X	60	X	64.81	XIII
10.	For communication purpose	97.78	II	95.55	II	96.67	I	96.29	II
11.	For accessing general information	91.11	IV	91.11	V	85.55	VI	89.25	IX
12.	For leisure/relaxation/time pass	93.33	III	81.11	VII	94.44	II	90	VIII
13.	For attending webinar/online workshop/conference, etc.	87.78	VI	85.55	VI	84.44	VII	85.92	X
14.	For online banking/ shopping	88.89	V	97.78	I	92.22	III	92.96	V

MPS= Mean Percent Score

Place of access of e-resources by postgraduate students

Overall analysis the data presented in the Table 4 reveals that majority of the postgraduate students of RAJUVAS, Bikaner preferred their respective department as place to access the e-resources with the extent of 96.67 MPS and ranked first, followed by the home (MPS 81.11) with second rank. Further, the students preferred to access the e-resources with moderate extent at their hostel (MPS 63.89) and college library (MPS 57.78) and were assigned third and fourth ranks, respectively.

While, the cyber cafe (MPS 5.00) was least preferred place to access the e-resources by the postgraduate students of RAJUVAS, Bikaner and ranked last in the order. It can be concluded that department was the most preferred and cyber cafe was the least preferred place for accessing e-resources by the postgraduate students of RAJUVAS, Bikaner. The present findings of the study are in conformity with the finding of Mishra (2020) ^[6].

Table 4: Place of access to the e-resources by postgraduate students

S.N.	Place of access	CVAS Bikaner (n=30)		CVAS Navania (n=30)		PGIVER Jaipur (n =30)		Total (n=90)	
		MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank
1.	College library	55.00	IV	60.00	IV	58.33	III	57.78	IV
2.	Cyber cafe	5.00	V	3.33	V	6.67	IV	5.00	V
3.	Home	80.00	III	73.33	III	90.00	II	81.11	II
4.	Hostel	95.00	II	96.67	I	0.00	V	63.89	III
5.	Department	98.33	I	91.67	II	100	I	96.67	I

MPS= Mean Percent Score

Preferred format of using e-resources by postgraduate students

Pooled analysis of the data presented in Table 5 shows that the most preferred format of using e-resources by the postgraduate students RAJUVAS, Bikaner was the PDF with 98.89 MPS and was assigned first rank in the rank hierarchy. It was followed by the Word (MPS 96.67), hard/printed copy (MPS 86.67) and PPT (MPS 86.11) as the next preferred

formats of using the e-resources by the post graduate students with second, third and fourth rank, respectively in the rank order. While, the HTML format (MPS 26.67) was reported as the least preferred format in using the e-resources by the postgraduate students of RAJUVAS, Bikaner and ranked last in the rank order. The present findings of the study are in conformity with the findings of Thanuskodi (2012)^[8], Meena (2017) and Mishra (2020)^[6].

Table 5: Distribution of respondents according to their preferences of formats in using of e-resources

S. N.	Format of e-resource	CVAS Bikaner (n=30)		CVAS Navania (n=30)		PGIVER Jaipur (n=30)		Total (n=90)	
		MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank
1.	Word	78.33	IV	83.33	IV	86.67	II	96.67	II
2.	PDF	100	I	96.67	I	100	I	98.89	I
3.	PPT	80.00	III	91.67	II	86.67	II	86.11	IV
4.	HTML	20.00	V	23.33	V	36.67	IV	26.67	V
5.	Hard/ printed copy	86.67	II	90.00	III	83.33	III	86.67	III

MPS= Mean Percent Score

Factors affecting the usage of e-resources by postgraduate students

The overall analysis of the data presented in the Table 6 indicates that the most important factor influencing the usage of e-resources among the veterinary postgraduate students of RAJUVAS, Bikaner was 'easier access to information' to an extent of 97.78 MPS and was ranked first in the rank hierarchy. It was followed by the factors viz., 'improve professional competence' 'easy to use', 'more useful', 'access to a wider range of information', 'time saving', 'instant access to current and updated information', 'expedite the research process' and 'economic in terms of cost' which were recorded to be 95.55, 95.00, 94.44, 93.89, 93.89, 93.33, 93.33 and

90.00 MPS and were ranked as second, third, fourth, fifth, sixth and seventh in the rank order, respectively. An in-depth understanding of the results pertaining to the factors affecting the usages of e-resources by the veterinary postgraduate students of RAJUVAS, Bikaner make it clear that all the included factor in the present study were perceived as the important factors by the respondents with slight variation in their magnitude of importance. Therefore, it is a useful reminder to all the educational and research institutions to harness the positivity of mindsets of the students in utilization of e-resources more efficiently for academic, research and other related works.

Table 6: Factors affecting the usage of e-resources by postgraduate students

S. N.	Factors	CVAS Bikaner (n=30)		CVAS Navania (n=30)		PGIVER Jaipur (n=30)		Total (n=90)	
		MPS	Rank	MPS	Rank	MPS	Rank	MPS	Rank
1.	Easier access to information	100	I	96.67	I	96.67	II	97.78	I
2.	Improve professional competence	95	IV	93.33	II	98.33	I	95.55	II
3.	Access to a wider range of information	95	IV	93.33	II	93.33	IV	93.89	V
4.	Provides instant access to current up-to-date information	96.67	III	91.67	III	91.67	V	93.33	VI
5.	Expedite the research process	96.67	III	93.33	II	90	VI	93.33	VI
6.	Economy in terms of cost	93.33	V	93.33	II	83.33	VII	90	VII
7.	Time saving	98.33	II	91.67	III	91.67	V	93.89	V
8.	Easy to use	95	IV	91.67	III	95	III	95	III
9.	More useful	96.67	III	91.67	III	91.67	V	94.44	IV

MPS= Mean Percent Score

Conclusions

The extent of use of e-resources among postgraduate students was found at moderate level that shows there is ample scope of promotion of e-resources among the students. Therefore, it is recommended that to improve the utilization of e-resources among the students, intensive training on functional literacy

to access and use the e-resources more effectively should be imparted to the postgraduate and other interested students of the educational institute. Further, the study concluded that the extent of use of e-resources was found better among those students who had higher academic performance, ICT skills, educated parents and better occupation of parents. Thus, it is

suggested to make efforts for improving their academic performance by providing healthy academic environment in the institution and engaging them more in preparation of e-assignments and other related works.

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