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Level of utilization and constraints perceived by post-graduate students in using Krishikosh: A study of VNMKV, Parbhani

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Abstract

Krishikosh, the National Agricultural Repository of the Indian Council of Agricultural Research, provides open access to theses, dissertations, research publications and other scholarly documents produced across India's National Agricultural Research and Education System, yet the extent to which post-graduate students actually use it, and the obstacles they face in doing so, has rarely been documented empirically. The present study assessed the level of utilization of Krishikosh and the constraints perceived by post-graduate students of Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani. An ex-post facto research design was adopted, and 173 respondents, representing 30 per cent of the post-graduate population, were selected from the three constituent colleges at Parbhani, Latur and Badnapur through proportionate random sampling. Data were collected using a structured interview schedule administered as a Google Form and analysed using frequency and percentage. Theses and dissertations were the most frequently used content on the repository, and it was used mainly for research work, followed by keeping up to date with the subject. The hostel was the most preferred place of access, easier access to information was the leading factor encouraging use, and guidance from fellow students was the main source through which respondents learned to use the platform. On an overall utilization score, 71.10 per cent of respondents recorded a medium level of use, 16.18 per cent a high level and 12.72 per cent a low level. Poor internet connectivity and lack of user training and information-technology knowledge were the most severe constraints reported, and respondents most often suggested provision of high-speed internet connectivity and regular training programmes to improve information-technology skills. The findings indicate scope for strengthening campus internet infrastructure and institutionalizing user-training programmes to raise the level of Krishikosh utilization among post-graduate students.

Keywords: Krishikosh, agricultural repository, post-graduate students, repository utilization

Introduction

Krishikosh is India's national open-access digital repository for agricultural research, established by the Indian Council of Agricultural Research and hosted by ICAR-Indian Agricultural Research Institute, New Delhi. Built on the DSpace platform, it aggregates theses, dissertations, research papers, technical bulletins and other scholarly output from institutions across the National Agricultural Research and Education System, and has grown into one of the largest subject-specific repositories of its kind in Asia. For post-graduate students, such repositories offer a distinctive advantage over conventional publications: a thesis available in full through Krishikosh reveals the complete methodological apparatus of an investigation, and simultaneous searching across contributing institutions substantially reduces the time needed for a comprehensive literature review.

The mere availability of a digital repository, however, does not guarantee its effective use; utilization is shaped by users' awareness, digital competence, access infrastructure and institutional support. Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, enrolls a substantial number of post-

graduate students across its constituent colleges, yet no study had previously examined how extensively these students use Krishikosh or what constrains that use.

Objective

1. To assess the utilization of Krishikosh by PG students of VNMKV, Parbhani.
2. To identify the constraints perceived in utilization of Krishikosh by PG students of VNMKV, Parbhani.

Materials and Methods

The study was conducted at VNMKV, Parbhani, across its three constituent colleges offering post-graduate programmes: College of Agriculture, Parbhani; College of Agriculture, Latur; and College of Agriculture, Badnapur. An ex-post facto research design was adopted, as the study examined the existing pattern of Krishikosh utilization without manipulating any variable. A proportionate random sampling technique was used to draw 30 per cent of the total post-graduate population from each college, yielding a sample of 173 respondents (Table 1).

Table 1: List of the colleges for the data collection

College	Total PG students (2024-25 & 2025-26)	Sample selected (30%)
College of Agriculture, Parbhani	250	75
College of Agriculture, Latur	246	74
College of Agriculture, Badnapur	80	24
Total	576	173

Data on the level of utilization of Krishikosh including frequency of use of different content types, purpose of use, place of access, factors influencing use and sources of learning to use the repository and on constraints and suggestions were collected through a structured interview schedule, self-administered via Google Form. The collected data were coded, tabulated and analysed using frequency and percentage; respondents were further categorized into low, medium and high levels of overall utilization on the basis of mean and standard deviation of their utilization scores.

Results and Discussion

1. Level of utilization of Krishikosh

To assess the overall utilization of Krishikosh by the post-graduate students, different dimensions of utilization were considered, namely frequency of use of content, purpose of use, place of access, factors influencing utilization, sources

of learning, and other aspects related to the utilization of Krishikosh. Information on these components was collected through a structured interview schedule and results are interpreted as below.

1.1 Frequency of use of different contents available on Krishikosh

Among the various types of content available on Krishikosh, theses/dissertations (full contents) were the most frequently used resource, with 47.98 per cent of respondents using them most frequently, securing the first rank, followed by research articles (42.77%, rank II) and old valuable books (42.20%, rank III) (Table 2). This pattern reflects the fact that most post-graduate students are engaged in coursework, literature review and thesis writing, for which theses and research articles provide the most directly relevant, authentic information.

Table 2: Distribution of PG students according to their frequency of use of different contents available on Krishikosh (N = 173)

Sr. No.	Content on Krishikosh	Most freq. (%)	Frequently (%)	Least freq. (%)	Not used (%)	Rank
1	Old and valuable books	42.20	42.77	10.41	4.62	III
2	Old journals	41.62	40.46	10.98	6.94	IV
3	Thesis/Dissertations (full contents)	47.98	43.35	6.94	1.73	I
4	Research articles	42.78	39.88	14.45	2.89	II
5	Popular articles	31.79	49.72	16.76	1.73	VII
6	Monographs	32.37	49.14	16.76	1.73	VI
7	Catalogues	23.70	45.09	25.43	5.78	X
8	Conference proceedings	14.45	56.65	20.81	8.09	XV
9	Success stories	17.92	47.98	25.43	8.67	XIII
10	Case studies	35.26	39.31	23.12	2.31	V
11	Annual reports	27.17	36.42	29.47	6.94	VIII
12	Newsletters	22.54	48.55	24.86	4.05	XI
13	Pamphlets	11.56	57.23	22.54	8.67	XVI
14	Brochures	16.76	44.51	33.53	5.20	XIV
15	Bulletins	26.59	41.62	28.32	3.47	IX
16	Grey literature	21.97	34.68	35.26	8.09	XII

1.2 Purpose to read and search Krishikosh

The majority of respondents (67.63%) used Krishikosh mainly for research purposes, i.e., thesis, dissertation or

project work, which secured the first rank, followed by keeping themselves up-to-date on the subject (58.38%, rank II) and completing class notes (54.91%, rank III) (Table 3).

Table 3: Distribution of PG students according to their purpose to read and search Krishikosh (N = 173)

Sr. No.	Purpose	Mostly (%)	Mostly (%)	Sometimes (%)	Never (%)	Rank
1	To keep up-to-date on the subject	58.38	58.38	31.79	9.82	II
2	For completion of assignments/seminar	50.28	50.28	41.04	8.67	VI
3	For research (thesis/dissertation/project)	67.63	67.63	28.32	4.04	I
4	To find relevant information in specialization	53.17	53.17	40.46	6.35	V
5	For career development	38.15	38.15	46.24	15.60	IX
6	For routine study	54.33	54.33	38.72	6.93	IV
7	For analysis	43.93	43.93	44.50	11.56	VIII
8	To retrieve current literature	46.24	46.24	39.30	14.45	VII
9	For research information in library	33.52	33.52	51.44	15.02	X
10	To complete class notes	54.91	54.91	40.46	4.62	III

1.3 Access places of Krishikosh

The hostel was the most preferred place from which

respondents accessed Krishikosh (57.22%, rank I), followed by the department (51.44%, rank II) and the library (49.71%,

rank III), while the cyber cafe was the least preferred (20.23%, rank V) (Table 4), indicating a preference for locations with dependable personal internet access over public access points.

Table 4: Distribution of PG students according to their places of preference to access Krishikosh (N = 173)

Sr. No.	Access point	Mostly (%)	Sometimes (%)	Never (%)	Rank
1	Library	49.71	40.46	9.83	III
2	Cyber cafe	20.23	42.78	36.99	V
3	At home/rented room	43.35	46.24	10.41	IV
4	Hostel	57.22	32.95	9.83	I
5	Department	51.44	38.73	9.83	II

1.4 Factors influencing the usage of Krishikosh:

“Easier access to information” was rated the most important factor encouraging the use of Krishikosh (89.60%, rank I), followed by “time saving” (83.82%, rank II) and “expedites the research process” (82.65%, rank III) (Table 5), reflecting the practical, convenience-driven motivations underlying repository use.

Table 5: Distribution of PG students according to the factors influencing the usage of Krishikosh (N = 173)

Sr. No.	Factor	Yes (%)	No (%)	Rank
1	Easier access to information	89.60	10.40	I
2	Improves professional competence	76.30	23.70	VIII
3	Access to a wider range of information	80.35	19.65	V
4	Provides instant access to current information	76.88	23.12	VII
5	Expedites the research process	82.65	17.35	III
6	Economical in terms of cost	78.61	21.39	VI
7	Time saving	83.82	16.18	II
8	Easy to use	82.08	17.92	IV

1.5 Sources of learning for using Krishikosh

The majority of respondents (87.28%) learned to use Krishikosh through guidance from other students, which secured the first rank, followed by self-learning (78.03%, rank II) and guidance from computing staff (71.10%, rank III) (Table 6), suggesting that peer support and independent exploration of the user-friendly interface were the principal channels of learning.

Table 6: Distribution of PG students according to their sources of learning the use of Krishikosh (N = 173)

Sr. No.	Source of learning	Yes (%)	No (%)	Rank
1	Guidance from other students	87.28	12.72	I
2	Self-learning	78.03	21.97	II
3	Guidance from computing staff	71.10	28.90	III
4	Guidance by ICT tools	70.52	29.48	IV
5	Courses offered by university/college	68.21	31.79	V
6	Guidance from teachers	67.05	32.95	VI
7	Trial and error	66.47	33.53	VII
8	Guidance from library staff	65.32	34.68	VIII

Overall level of utilization of Krishikosh

To assess the overall utilization of Krishikosh by the post-graduate students, different dimensions of utilization were considered, namely frequency of use of content, purpose of use, place of access, factors influencing utilization, sources of learning, and other aspects related to the utilization of Krishikosh. Information on these components was collected through a structured interview schedule and the respondents were categorized into three levels of utilization, namely low, medium and high, based on the mean and standard deviation

of the utilization scores. The distribution of respondents according to their overall level of utilization of Krishikosh is presented in Table 7.

On the basis of overall utilization scores, the majority of respondents (71.10%) fell in the medium category, 16.18 per cent in the high category and 12.72 per cent in the low category (Table 7). Thus, Krishikosh has gained an established but not yet optimal place in the research routines of post-graduate students.

Table 7: Overall level of utilization of Krishikosh (N = 173)

Sr. No.	Category	Respondents (N=173)	
		Frequency	Percentage
1.	Low (Up to 105)	22	12.72
2.	Medium (106-116)	123	71.10
3.	High (Above 116)	28	16.18
	Total	173	100.00

Mean = 111.24, S.D.=5.23

2. Constraints perceived and suggestions offered

Poor internet connectivity (low bandwidth, network issues, slow download speed) was rated the most severe constraint by 46.82 per cent of respondents, securing the first rank, followed by lack of user training and information-technology

knowledge (40.46%, rank II) and frequent power cuts and equipment breakdown (39.89%, rank III) (Table 8). These findings indicate that infrastructural and technical barriers, rather than the design of the repository itself, were the principal obstacles to effective utilization.

Table 8: Constraints perceived by post-graduate students in utilization of Krishikosh

Sr. No.	Constraints	Most Severe	Severe	Least Severe	Rank
1.	Lack of user training and Information Technology knowledge to effectively utilize resources	70 40.46%	78 45.09%	25 14.45%	II
2.	Poor internet connectivity (low bandwidth, network issues, slow download speed)	81 46.82%	60 34.68%	32 18.50%	I
3.	Frequent power cuts and equipment breakdown	69 39.89%	70 40.46%	34 19.65%	III
4.	Non-user-friendly interface and complicated login procedures	53 30.64%	68 39.31%	52 30.05%	VI
5.	Limited availability of quality resources (e.g., foreign journals) and reliability concerns	68 39.31%	79 45.66%	26 15.03%	IV
6.	Information overload and restrictions on accessing certain websites	63 36.42%	76 43.93%	34 19.65%	V

Conclusion

Post-graduate students of VNMKV, Parbhani, use Krishikosh predominantly for thesis, dissertation and research work, mainly by accessing theses/dissertations and research articles, and mostly from the hostel; a majority record a medium level of overall utilization, with only about one in six students at a high level. Poor internet connectivity and inadequate user training were identified as the two most severe constraints, and respondents' own suggestions align closely with these gaps, centring on high-speed connectivity and regular information-technology training. Strengthening campus-wide internet infrastructure, ensuring uninterrupted power supply, and institutionalizing regular orientation and hands-on training on Krishikosh are therefore likely to yield the most direct improvement in its utilization by post-graduate students, with implications for library planning at VNMKV and other State Agricultural Universities facing similar constraints.

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