

Utilization of Electronic Resources in Selected Universities of Haryana: A Comprehensive Analysis

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The objective of the study was to survey library patrons and staff at a selection of Haryana universities to gauge their familiarity with and use of electronic resources (E-Resources). The objective of the research was to ascertain the libraries' subscribers' frequency of use, purpose of access to the resources, and level of satisfaction with the e-resources that were already in place. The survey was undertaken with the purpose of determining the extent to which electronic resources are utilized in the university libraries that were selected from Haryana. The sample consisted of 20 librarians and 40 library users representing all libraries. Purposive Sampling Technique was utilized, and a t-test was applied to examine the hypothesis. The results indicated that a significant proportion of the participants from all library collections were cognizant of the electronic resources to which their respective libraries had subscribed. The utilization of electronic resources by faculty members exceeded that of library users across all libraries. There was no statistically significant distinction observed in the level of contentment derived from the electronic collection between librarians and library users across all libraries. The outcomes of this research will assist library administrators in comprehending the extent to which e-resources subscribed by their respective libraries are utilized by librarians and library users, thereby facilitating the provision of training to encourage greater utilization of these resources.

Keywords: E- Resources, University Library, Uses of E-Resources, Haryana.

1. Introduction

There are governmental universities and private universities in India. Public universities in India receive funding from the central government and individual states, whereas private institutions typically receive support from a wide variety of organizations and groups. The University Grants Commission Act of 1956 established the UGC to supervise the recognition of universities in India. To keep an eye on different parts of accreditation and collaboration, fifteen professional councils are set up.

Working in tandem with the UGC and in accordance with Section 3 of the UGC Act, the autonomy designation known as "Deemed University" or "Deemed-to-be-university" is bestowed by the Department of Higher Education, which is subordinate to the Ministry of Human Resource Development. Every field of study makes use of some sort of information technology. It paved the way for libraries and all other institutions to reach new heights.

Libraries now offer better services and more modern facilities thanks to information technology. The 21st century has brought significant changes to both the traditional function of libraries and the documents they hold. In contrast to prior years, electronic sources now account for a significant component of the library's collection. Print resources have several disadvantages in comparison to electronic resources. Books, e-journals, online databases, newspapers, theses, e-zines, and reports are examples of e-resources.

As a result of the proficient implementation of multimedia tools, electronic resources have emerged as a primary source of information for students, specifically research scholars enrolled in universities and other scholarly institutions. Utilization and familiarity with electronic resources are crucial for researchers in the twenty-first century. Digital resources have effectively surmounted the constraints imposed by geography in contrast to traditional print media. Although several studies have examined the utilization of electronic resources in different types of libraries, no comprehensive investigation has been conducted thus far at the Universities Library of Haryana; thus, the current study is necessary.

University Libraries

Assisting the University in its pursuit of knowledge through research, instruction, and study is the primary function of the University library. Many academic institutions consider their libraries to be their beating hearts. The role of university libraries in the global system of higher education is distinct and significant. In addition to storing information, libraries also make such information available to the public. Underappreciation or neglect of university libraries affects the entire country because of the enormous influence these libraries have on the quality and quantity of study, teaching, and research. According to the Radhakrishnan Commission (1948–49), the library is fundamental to the functioning of any institution, whether it's for research or instruction. For scientific research, libraries and their labs are indispensable; yet, for humanistic inquiry, libraries serve as laboratories as well as libraries. Any institution worth its salt, whether it specializes in the hard sciences or the arts, must have a first-rate library. India is a good place to look for information about the value of higher education, the role of libraries in fostering educational advancement, and the dedication of the Central Government to meeting the need for such programs (1949). In 1953, the UGC was established through a parliamentary act. In its 1948 report, the Radhakrishnan Commission emphasized the value of a well-structured library system and its function in universities. The paper identifies difficulties and makes solutions for strengthening university libraries. In 1957, the UGC established the Ranganathan Committee, which developed criteria for library structures, collection development, staffing, services, and furniture. These suggestions were approved and sent on to the UGC for execution. Despite the merit of the recommendations put forth by the Kothari Commission, the University Grants Commission must be lauded for the pivotal role it plays in assisting educational institutions with library development, acquisition of books and journals, building of new library facilities, and furniture and equipment for those facilities.

Description of Universities

Ashoka University is a private, non-profit University based in Sonapat, Haryana, India. It was founded in 2014 with the goal of delivering a liberal education that emphasises critical thinking, ethical reasoning, and interdisciplinary learning. A wide range of academic disciplines, from the hard sciences to the arts and social sciences, are offered at both the

undergraduate and graduate levels at this institution. Ashoka University is well-known for its unique curriculum, which encourages students to explore many areas of knowledge. The faculty includes distinguished scholars and researchers from around the world. The university also places a great emphasis on research and encourages students to participate in academic and extracurricular activities. The campus is spread out over a green and large area, creating an ideal setting for learning and personal growth. Ashoka University has received acclaim for its efforts to redefine higher education in India and promote a liberal arts approach.

G D Goenka University, based in Gurugram, Haryana, India, was formed in 2013. More than 100 academic programmes are held on GD Goenka University's campus, which spans more than 60 acres of luxuriant nature. More than 40 countries are represented among the pupils of over 200 well selected faculty members. The university works with over thirty universities and professional institutes from the United States, Canada, Australia, the United Kingdom, and other countries.

The UGC has recognised Manav Rachna University as a renowned state private university (established in 2014 in accordance with Haryana State Legislature Act No. 26 of 2014 and Section 2(f) of the UGC Act 1956) that provides education with global relevance. The Swami Vivekananda Library and Resource Centre is specifically intended for the use of the students, faculty, and personnel of Manav Rachna University. The Dr. O. P. Bhalla Learning Lounge, the Faculty of Education Library, and the RC Lahoti Memorial Law Library are all part of the MRU Library's network. The library holds an extensive collection of approximately 49255 volumes and 11323 titles, spanning various disciplines including engineering, applied science, management, education, and law.

Established in 2009, O.P. Jindal Global University (JGU) is a research-focused, non-profit, multidisciplinary institution. Mr. Naveen Jindal, the institution's founding chancellor, established JGU as a humanitarian endeavour in honour of his father, Mr. O. P. Jindal. JGU maintains a professor-to-student ratio of 1:9 and recruits distinguished academics with extensive experience and credentials from India and around the globe. Over the past decade, JGU has expanded to become an institution that collaborates with over 400+ prestigious institutions in 70+ countries to offer international learning experiences to the Indian higher education system and attracts full-time faculty and students from over 50 countries. The JGU Global Library is situated in an exquisitely designed structure that boasts a central location and encompasses an approximate area of 25,000 square feet.

Established in March 2019, Om Sterling Global University is devoted to realizing its goals, purpose, and vision by providing exceptional education in every field. Situated on 30 acres of fully developed institutional land, the university boasts a verdant campus, state-of-the-art facilities, and a conducive atmosphere for learning. The campus's mission and goal informed its architectural design, which aims to provide an environmentally friendly setting that encourages students to relax and enjoy their time here. By inculcating in its students' strong moral principles, a dedication to quality, and a thirst for perpetual intellectual advancement, the University, as an educational temple, strives to create scholars, researchers, and leaders of international renown in a wide range of fields.

Charan Chaudhary Singh Haryana Agricultural University, located in the Indian state of Haryana in Hisar, is one of the largest agricultural universities in Asia and is commonly

referred to as HAU. It is named after Chaudhary Charan Singh, the seventh prime minister of India. It was a pioneer in agricultural research in India during the 1960s and 1970s and made substantial contributions to the country's Green and White Revolutions. The Nehru Library, situated in Hisar and throughout the state of Haryana, is an architectural marvel that combines functionality, elegance, and exquisiteness. Boasting a vast collection of approximately 3.82 lakh volumes of books, bound volumes of journals, and other documents, it provides information and intellectual sustenance to the university's faculty, staff, and research scholars, as well as extension specialists.

Rajiv Gandhi Education City in Sonapat, Haryana, India is home to the National Law University Dr. B.R. Ambedkar (DBRANLU). Established in 2012 by the State Government of Haryana in compliance with State Legislature Act No. 15 of 2012, it is the twenty-third National Law University in India. The university was redesignated as "Dr. B.R. Ambedkar National Law University Sonapat" in 2014, as per an amendment. This name change was implemented in recognition of B. R. Ambedkar, a prominent figure in Indian society who advocated for social reform and was instrumental in drafting the Constitution of India. The University Library is housed in the Dr. A.P.J. Abdul Kalam Library Complex, a three-story building. The University Library can accommodate approximately 200 readers at a time, with approximately 50 in the Digital Section.

Maharshi Dayanand University, Rohtak, founded in 1976 as a residential institution, is rapidly becoming a preeminent educational establishment in the country. Its mission is to advance inter-disciplinary higher education and research, with a particular focus on environmental, ecological, and life sciences. Presently, it functions as an affiliated teaching and learning institution renowned for its achievements in academia, research, cultural and literacy engagements, and athletics. In 1976, the State Legislative Assembly passed a law establishing Maharshi Dayanand University as an independent institution. While Panjab University Chandigarh's Regional Centre and this library were both founded in 1966, the year 1989 holds special significance as it was then that the current library building was formally dedicated to the University community, the State, and the nation.

The Central University of Haryana is in Mahendergarh, Haryana, India. It was established in 2009 under the Central Universities Act of 2009. The university provides undergraduate, postgraduate, and doctorate programmes in a variety of subjects. The campus, located in Jant-Pali village, Mahendergarh, strives to deliver high-quality education and foster research in a variety of subjects. The Central Library of the University was founded in 2010 at the Temporary Campus of Government B.Ed College, Narnaul, and relocated to its current location in August 2013. The structure is air-conditioned and equipped with modern ICT equipment.

Kurukshetra University is in Kurukshetra, Haryana, India. It was founded in 1956 and named after the holy city of Kurukshetra, which appears in the Mahabharata, an ancient Indian epic. The university provides undergraduate and postgraduate programmes in a variety of fields, including arts, science, commerce, engineering, technology, and social sciences. The university campus is 473 acres and includes dorms, sports complexes, libraries, and research centres. The JLN Library is well-appointed with ample space and furnishings, including tables, reading seats, display racks, magazine racks, and more. It is situated prominently on the

University Campus. With a capacity of 1,750 readers, the library building is air-conditioned throughout. The current area of 106730 sq. ft. has been expanded by 7475 sq. ft. of Savitri Bai Phule Block to provide readers with sufficient amenities. A total area of 11,420,5 square feet is thus produced. Both the generator and the Uninterruptible Power Supply (UPS) are able to reliably keep the power on.

Table: 1 Description of Universities

S. No.	Name of Universities	Year of Establishment
Private Universities		
1	Ashoka University	2014
2	GD Goenka University	2013
3	Manav Rachna University	2014
4	O. P. Jindal Global University	2009
5	OM Sterling University	2019
Public/Government Universities		
1	Chaudhary Charan Singh Haryana Agricultural University	1970
2	Dr. B. R. Ambedkar National Law University	2012
3	Maharshi Dayanand University	1976
4	Central University of Haryana	2012
5	Kurukshetra University	1956

2. Review of Literature

Rani and Kaur (2021) focused on Maharshi Dayanand University in Rohtak, analyzing e-resource awareness, types of e-resources used, search tactics, satisfaction levels, and challenges faced by faculty and researchers. The study found that all respondents were aware of e-resources, with the majority using them, particularly for research purposes. Singh et al. (2019) extended the investigation to Panjab University, Chandigarh, studying research scholars' awareness, access, and utilization of electronic information resources. Their findings revealed that a significant percentage of scholars were aware of e-resources, with specific platforms like UGC-Infonet E-journal Consortium and JSTOR being frequently utilized.

Gautam & Sinha (2017) examined the use of e-resources on university campuses, emphasizing the Central Library and Departmental Libraries. The research showed that while younger library patrons were more likely to use online resources, elderly patrons were less likely to be comfortable using the Internet and e-resources. Developing collections, library membership, staff positions, and services were some of the areas investigated by Ramakrishna et al. (2017) in their examination of Andhra Pradesh's deemed university libraries. The research showed that these libraries had first-rate print and digital collections and services.

Sinha et al. (2014) investigated how Assam University Library users in specific disciplines utilized e-resources from UGC-INFONET Digital Library Consortium and DeLCON Consortium. The study revealed a preference for accessing e-resources during evening hours.

Tyagi (2011) analyzed the use of collections and services in higher education, specifically focusing on engineering faculty at Western Uttar Pradesh universities. The study found that faculty members across these universities extensively used various electronic information resources such as Science Direct, IEEE/IEE IEL online, Springer, INSIGHT, and EBSCO.

Objectives

- To examine the awareness of E-Resources among the faculty members and library users of the selected universities
- To know the usability of electronic resources among the faculty members and library users of the selected universities
- To know the satisfaction level regarding electronic resources by the faculty members and library users of the selected universities

3. Research Methodology

This survey's data collection method was a stratified random sampling procedure. The libraries of a few chosen universities were sent a well-organized survey.

Data Analysis

Data from the questionnaire was analyzed using descriptive statistics in SPSS version 26 and MS Excel, including percentages, means, standard deviations, and t-test. The obtained data is provided in tables & discussed further below.

Table: 2 Gender-wise Distribution of the Respondents

Gender	Librarian N (%)	Library users N (%)	Total N (%)
Male	13 (59.1%)	20 (46.5%)	33 (50.8%)
Female	9 (40.9%)	23 (53.5%)	32 (49.2%)
Total	22 (100.0)	43 (100.0)	65 (100.0)

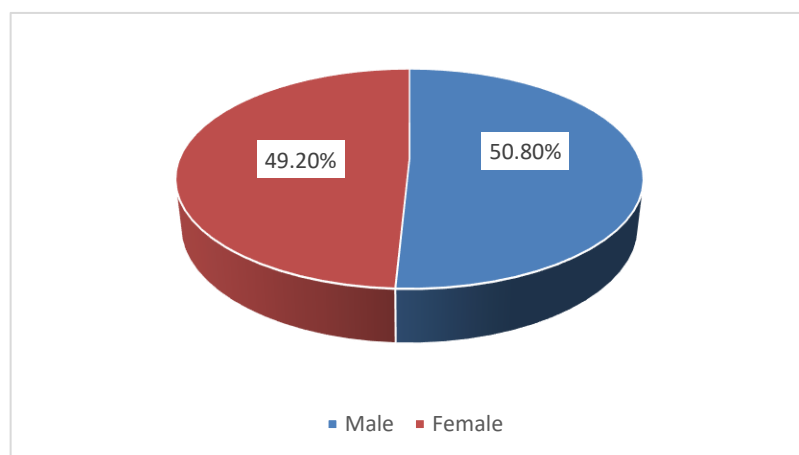


Figure: 1 Gender of the Respondents

In table 2 and figure 1, it is shown that of all the respondents who can use e-resources available through library for different purposes, 50.8% of population studied were males and only 49.2% were females.

Awareness about E-Resources

Table: 3 Awareness about E-Resources

Awareness	Librarian N (%)	Library users N (%)
Yes	22 (100.0)	41 (95.4%)
No	0 (0.00)	2 (4.6%)
Total	22 (100.0)	43 (100.0)

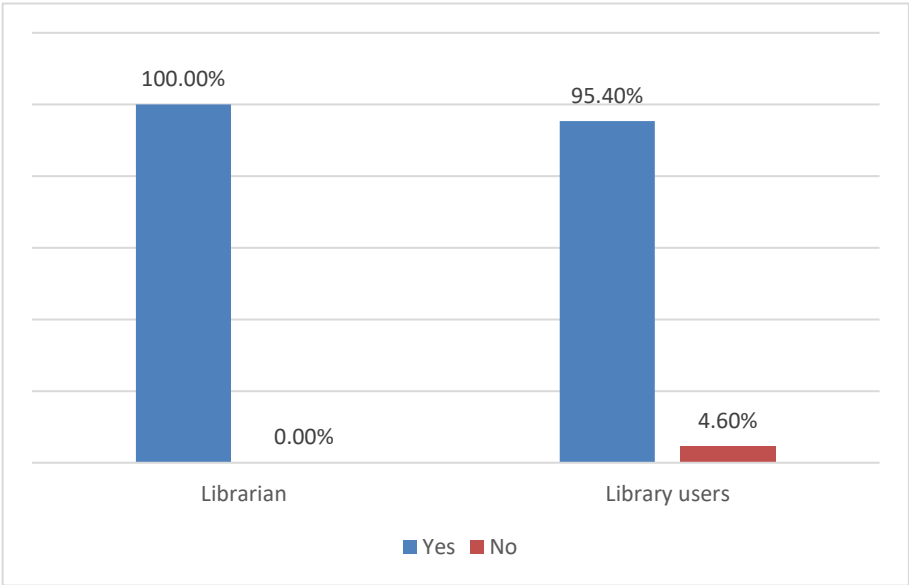


Figure: 2 Awareness about E-Resources

As shown in Figure 2 and Table 3, most library users (95.4%) are cognizant of electronic resources, while only 4.6% were unaware. Although every librarian being examined possesses knowledge of electronic resources.

Table: 4 Use of E-Resources by the Respondents

Use	Librarian N (%)	Library users N (%)
Yes	21 (95.5%)	35 (81.4%)
No	1 (4.5)	8 (18.6%)
Total	22 (100.0)	43 (100.0)

According to Table 4 the majority of respondents (56 out of 65) use e-resources, while a small percentage (9 out of 65) do not.

Table: 5 t-test for purpose of using E-resources

Purpose	N	Mean	Std. Deviation	t	Sig. (2-tailed)
For updating subject knowledge	65	3.51	2.201	2.807	0.006
For general reading	65	2.86	1.541	1.760	0.005
For guiding research	65	4.00	2.235	3.604	0.002
For lecture preparation	65	3.54	2.208	3.011	0.000
To carry out project work	65	4.07	1.941	4.430	0.000
For writing research articles	65	2.61	1.614	2.630	0.005

In all cases except updating subject knowledge and conducting research, Table 5 demonstrates that the p-values of the t-tests are less than the critical value, or 0.05, indicating that the reasons provided by respondents for utilizing e-resources differ significantly. The utilization of electronic resources by respondents is primarily observed in the following domains: general reading, research guidance, project work, and article authoring.

Table: 6 t-test for Use of E-Resource

Purpose	N	Mean	Std. Deviation	t	Sig. (2-tailed)
E-books	65	4.73	1.262	.262	0.802
E-journals	65	5.17	1.128	1.357	0.132
E-magazines	65	4.21	1.602	-2.257	0.017
E-theses/E-dissertations	65	4.12	1.503	-2.235	0.018
Anti-plagiarism Software	65	3.02	1.526	-2.66	0.771
Full text databases	65	3.48	1.607	0.201	0.722
Search Engines like Google	65	5.32	.876	1.502	0.108
CD ROMs/DVDs	65	2.68	1.445	-0.540	0.404
Subject Specific Portals	65	4.03	1.630	0.177	0.741
Library OPAC/Web-OPAC	65	3.31	1.657	-0.704	0.305

As shown in Table 6, the utilization of electronic resources does not differ significantly between the two respondents. E-books, CD ROMs/DVDs, subject-specific portals, anti-plagiarism software, search engines such as Google, e-journals, and full text databases are all included. The p-value exceeds the critical value for the t-test. A greater proportion of the faculty members surveyed utilize electronic theses/dissertations, e-magazines, and e-newspapers.

Table: 7 Problems using E-Resources

Problems	No. of Respondents	Percentage (%)
Time consuming	11	16.9
Finding irrelevant information	5	7.7
Lack of printer	9	13.8
Slow access speed	18	27.7

Lack of staff assistance	14	21.5
Too much information is retrieved	8	12.4
Total	65	100.0

There are numerous issues that respondents encounter when attempting to access electronic resources. During the information gathering process with the respondents, they were requested to identify any challenges they encountered while utilizing electronic resources to find information. According to the data presented in Table 7, a total of 5 respondents (7.7%) encountered difficulties in obtaining irrelevant information, 11 (16.9%) found the process time-consuming, 18 (27.7%) complained of slow speed, 14 (21.5%) expressed dissatisfaction with inadequate staff assistance, 8 (12.4%) were burdened by excessive information retrieval, and 9 (13.8%) had printer facility issues.

4. Conclusion

The study on the usage of electronic resources in selected Haryana universities sheds light on the awareness, utilization, and issues that librarians and library users confront. The gender distribution of respondents reveals approximately equal engagement, with 50.8% males and 49.2% females using library e-resources. Librarians (100%) and library users (95.4%) have high knowledge of e-resources, indicating a favorable trend in acknowledging and appreciating the importance of electronic resources.

The data show that most respondents, including 95.5% of librarians and 81.4% of library users, actively use e-resources. The study delves deeper into the reasons why people use e-resources, revealing considerable variances in preferences. Notably, respondents are more likely to use electronic resources for general reading, classroom preparation, research help, project work, and authoring research papers. The t-test analysis reveals that there is no statistically significant variation among respondents about the types of electronic resources they utilize, with the exception of e-magazines and e-theses/dissertations, which are more frequently utilized by faculty members. Respondents reported difficulty using electronic resources due to time-consuming processes, slow access speeds, a lack of human assistance, and concerns with retrieving too much information and printing facilities. In general, the research underscores the favorable patterns in the integration of digital resources at the chosen universities in Haryana, where both librarians and library patrons exhibit considerable knowledge and employ these resources. The challenges that have been identified offer institutions valuable insights that can be utilized to improve the user experience and ensure electronic resources are utilized more efficiently and effectively in academic settings.

Despite the useful insights gathered from this study on electronic resource use in selected Haryana institutions, there are certain constraints to consider. The study's scope is limited to a single region and may not be indicative of all educational environments. Additionally, the reliance on self-reported data raises the possibility of response bias. A larger sample size and inclusion of colleges other than those selected could improve the study's generalizability. Future research should look at the changing landscape of electronic resource preferences and problems, using a longitudinal perspective to track changes over time. Investigating the influence of technological improvements on user experiences, as well as the effectiveness of

treatments to address identified difficulties, would help to gain a more thorough knowledge. Furthermore, comparative research with institutions from other regions may provide a broader perspective on electronic resource consumption trends and educate best practices for improving access and usability in varied academic settings.

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