

An Evaluative Study on the Adoption of Digital Library Resources and ICT Services in Gondwana University-Affiliated Colleges

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Abstract: E-learning, supported by electronic devices such as computers, tablets, and smartphones, enables accessible and flexible education, transcending geographical and temporal barriers. A key component of this digital learning ecosystem is electronic resources (e-resources), which include e-books, e-journals, e-magazines, e-databases, and other digital materials. The proliferation of e-resources has revolutionized information access, allowing users to retrieve global knowledge with minimal physical effort. This study examines the utilization patterns and perceived effectiveness of e-resources among students in higher educational institutions affiliated with Gondwana University, focusing on the Chandrapur and Gadchiroli regions. Data was collected from 250 students through a structured questionnaire, assessing factors such as time efficiency, ease of use, and academic performance enhancement. A theoretical framework was developed to analyze the relationship between e-resource usage and its perceived benefits. Demographic profiles, research objectives, and hypotheses guided the data analysis, supplemented by an extensive literature review. The study aims to evaluate the role of e-resources in improving teaching-learning experiences, fostering digital literacy, and ensuring equitable access to quality education for students and faculty. Findings will contribute to understanding the challenges and opportunities in digital education adoption within the region.

Keywords: E-learning, E-resources, Digital Literacy, Utilization, Academic Library, Digital Services, Awareness

Introduction

The proliferation of electronic resources (ERs) has brought about a transformative shift in the role of libraries and information centers worldwide over the past decade. User preferences have increasingly favored online access to information, driven by advancements in information and communication technology (ICT), electronic databases, and e-book technologies. This evolution has fundamentally reshaped the field of informatics.

As users transition from print-based to digital resources, they must navigate the availability and organization of diverse e-resources, including online journals, databases, electronic theses and dissertations (ETDs), government publications, and digital newspapers. Consequently, information professionals in India must critically evaluate key dimensions of electronic resource management while addressing challenges associated with their accessibility and usability.

In this study, electronic resources (ERs) are defined as information resources accessible exclusively through ICT-mediated platforms. This encompasses a wide range of digital collections, such as e-books, e-journals, online public access catalogs (OPACs), CD-ROM databases, internet-based resources, online databases, and multimedia materials.

In the current information technology era, the utilization of electronic resources (e-resources) has reached unprecedented levels. While traditional libraries once relied predominantly on print-based materials, e-resources have now surpassed them in both significance and functionality. The evolving definition of a library reflects this shift, as modern institutions increasingly provide users with a dynamic digital environment, innovative resources, and enhanced services. Today, e-resources constitute the majority of academic and research collections, underscoring their critical role in facilitating targeted, comprehensive, and timely information dissemination.

Beyond supplementing print collections, e-resources offer distinct advantages that enhance research and learning. They bridge accessibility gaps by providing users—regardless of geographical or financial constraints—with information that may otherwise be unattainable. Additionally, their digital nature ensures continuous updates, granting access to the most current scholarly content. Advanced search functionalities further augment their utility by enabling cross-referencing and discovery of related materials. The convenience of remote access allows users to retrieve library resources from any location, eliminating physical barriers to knowledge acquisition.

Given these benefits, e-resources have become indispensable tools for teaching, research, and professional training. Consequently, most academic libraries and universities, including those specializing in agricultural sciences, now prioritize digital collections to support higher education and advanced research.

Literature Review

“Research has shown that V Labs make learning interesting, engaging, deepen understanding and improve academic performance. The author reported that there was limited to moderate research around the use of V Lab’s impact on individual learning resulting in a sense of independence as one navigates and develops knowledge through online experiments without immediate help by the facilitator” [1].

“Authors conducted a survey on Awareness and use of E-PGpathshala in the Faculty of Science and Social Science in Aligarh Muslim University. The survey findings show that the majority of students are familiar with e-PGPathshala. Most students utilize this portal since it is convenient and always available to write notes, dissertations, or theses. Most users spent less than an hour on it. The most preferred access point is their room or hostel. The study also discovered that most students considered e-PG Pathshala user-friendly and beneficial. The research also addresses how students look for information, their competence, and their satisfaction with the e-PG Pathshala resources” [2].

“Reviewed the integration and Expansion of ICT-based Initiatives in the Indian Higher Education System. This review chapter was to examine the role of ICT in higher education. This chapter addressed how ICT may promote and revolutionize higher education in India through new government initiatives. Furthermore, the chapter addressed the issues and challenges associated with the use of ICT for educational purposes” [3].

“Authors undertook to study the role of the Academic Bank of Credits (ABC) and National Academic Depository (NAD) in NEP 2020 in the light of the New Education Policy, Academic Bank of Credit, National Academic Depository and DigiLocker giving coverage to developments from 2020 to 2023. In the year 2022, a total of 1,222 educational institutions have registered in the Academic Bank of Credit and 1,224 in the

National Academic Depository. In the country, Maharashtra has the highest number of registrations at 110 and Mizoram 3, Goa 3, and Chandigarh 3. In the National Academic Depository, the highest number of registrations has been registered in Maharashtra 1,559 and the least in Andaman Nicobar 2 In the Academic Bank of Credit during the month of April (2022), a total of 87,2550 accounts were opened and credit was deposited in 1,47,322 accounts. 20, 21,550 have been opened in Indira Gandhi National Open University during the year 2023. In the National Academic Depository, Karnataka has more than 100 mark sheets, certificates, and degrees totaling 4, 82, 21, 955 and Andaman Nicobar has the least. 0 have been deposited in Diu-Daman. Jammu and Kashmir Board of School Education has been the most active with 2, 16,171 numbers in the National Academic Depository during the month of April (2022)” [4].

“Awareness on National Digital Library of India: An Empirical Study. This study analyzed the awareness of the National Digital Library of India (NDLI) among the students, teachers, and research scholars of India and tried to assess its utilization and backdrops for further improvement. This study detected that the overall level of awareness of NDLI was low (39.3%) among the different groups, and students had the lowest (50.2%) level of awareness among other groups of respondents comparatively. A strong association existed between educational qualification and respondents’ level of awareness. Apart from these, the users found the NDLI app useful; 54% of respondents were able to access the required content using the app and 71% of the users rated ‘good’ the app's performance” [5].

Research Methodology

This study employed a mixed-methods approach, utilizing both questionnaires and interviews to collect data from participants. A well-structured questionnaire, designed to comprehensively assess the usage patterns and perceptions of digital resources, was distributed to students across multiple colleges affiliated with Gondwana University, Gadchiroli. The sample consisted of 250 library users, selected to represent diverse academic disciplines and user demographics.

Out of the 250 questionnaires administered, 241 were completed and returned, yielding a high response rate of 96%. Out of 250 respondents 200 were students while 50 are faculty members. This robust participation rate enhances the reliability of the collected data. Additionally, follow-up interviews were conducted to gain deeper insights into user experiences and challenges related to digital resource utilization.

Data Analysis

The following analysis of the information gathered from respondents at various affiliated colleges of the Gondwana University, Gadchiroli.

Respondent	No. of Questionnaire Distributed	No. of Responses received	Percentage (%)
Faculty Members	50	47	93
Selected Students	200	192	96
Total	250	239	96

Table 1: Number of Respondents

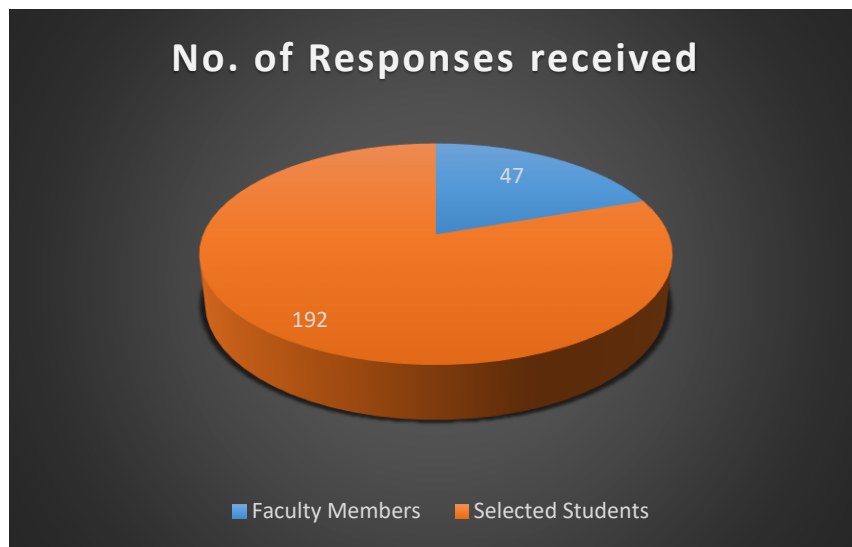


Chart 1: Number of Respondents

Only 239 (96%) of the 250 questionnaires that were given to students and faculty at the affiliated college campus, were returned, and only 239 respondents' responses were judged to be suitable for analysis following careful examination.

GUG Affiliated Colleges	Issued /Return of Books	Consult periodicals/ journals	Photocopy / Print out	Collect material for assignments	Collect material for research	Total
Faculty	5 (11%)	15 (32%)	5 (11%)	3 (6%)	19 (40%)	47 (100%)
Students	130 (68%)	10 (5%)	14 (7%)	28 (14%)	10 (5%)	192 (100%)

Table 2: Purpose of Visit to Library

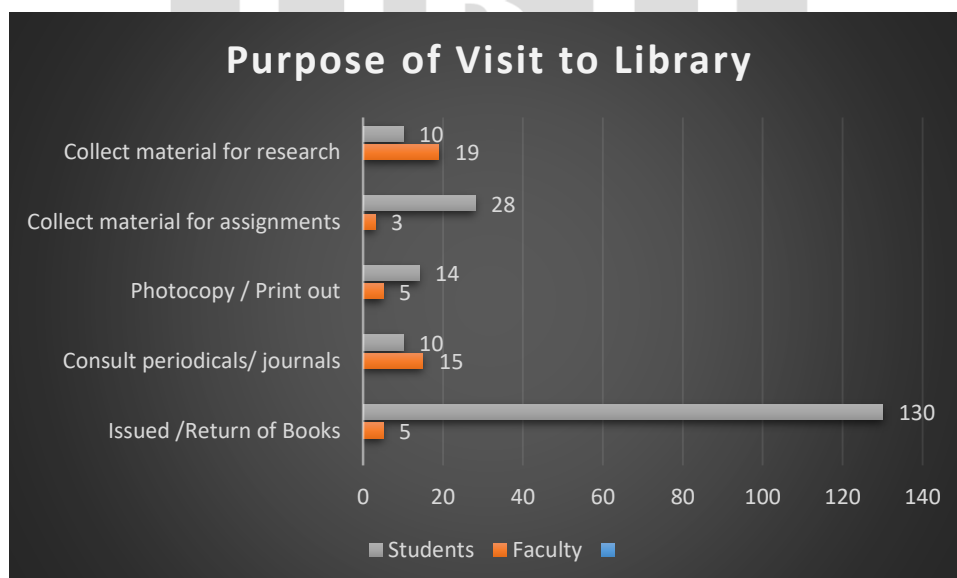


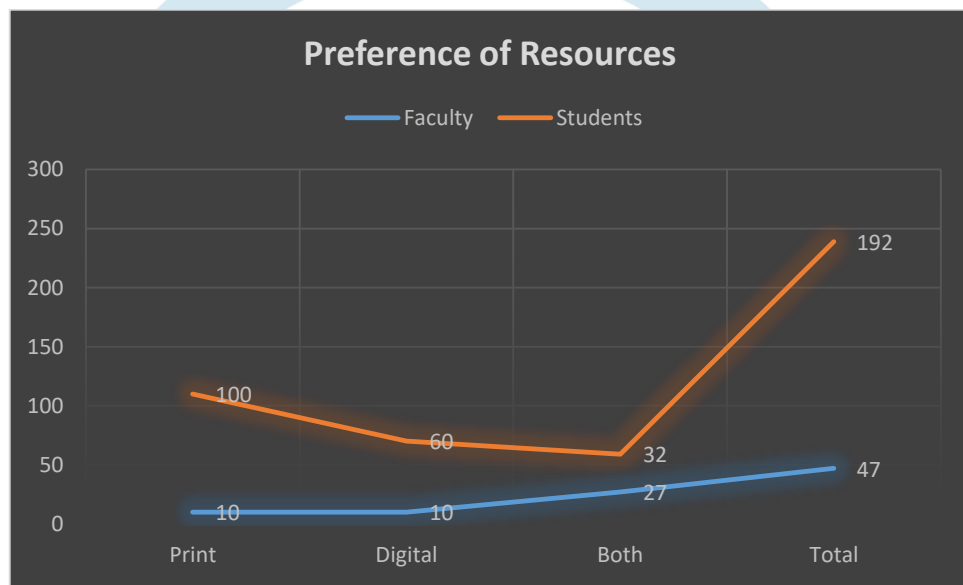
Chart 2: Purpose of Visit to Library

The table and figure 2 show the respondents' reasons for visiting the library. The table shows that most faculty (40%) visit the library to use Collect Material for Research, whereas most students (68%) visit to obtain books issued or returned.

GUG Affiliated Colleges	Print	Digital	Both	Total
Faculty	10 (22%)	10 (22%)	27 (55%)	47 (100%)
Students	100 (52%)	60 (31%)	32 (17%)	192 (100%)

Table 3: Preference of Resources

Table 3 displays the respondents' preferred resource choices. The data shows that while the majority of students (52%) prefer to use print materials, the majority of faculty (55%) prefer to use both print and digital resources.

**Chart 3: Preference of Resources**

Digital Information Resource	Faculty	Student	Total
E-Books	42 (89%)	179 (93%)	221
E-Journal	37 (78%)	159 (83%)	196
E-Newsletter	26 (55%)	88 (46%)	114
E-Thesis/Dissertation	37 (78%)	90 (46.87%)	127
Indexing Database	21 (44%)	60 (31.25%)	81
Abstracting Database	21 (44%)	50 (26%)	70
Bibliographic Database	25 (53%)	31 (16%)	56
Institute Publication	21 (44%)	30 (15.62%)	51
Subject Specific	32 (67%)	40 (20.83%)	72
Portals	47 (100%)	190 (98.95%)	237

Table 4: Awareness of Digital Information Resources

Table 4 shows how familiar people are with different digital information sources. The table demonstrates that the vast majority of respondents are familiar with all of the online information resources that are accessible.

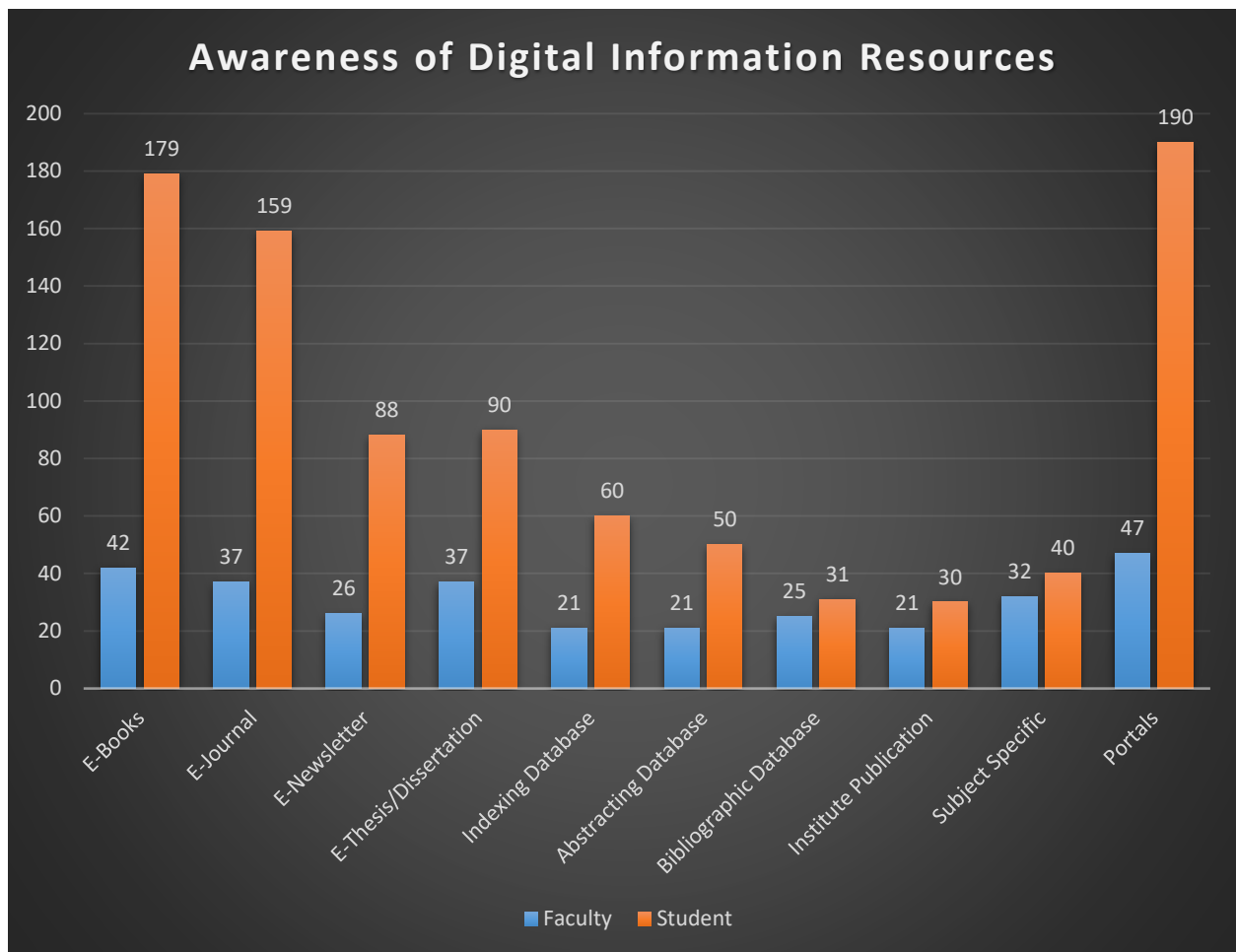


Chart 4: Awareness of Digital Information Resources

Conclusion

The study on the adoption of digital library resources and ICT services in Gondwana University-affiliated colleges highlights both progress and challenges in integrating technology into academic environments. While some institutions have successfully embraced digital tools, enhancing accessibility and learning efficiency, others face barriers such as inadequate infrastructure, limited user awareness, and resistance to change.

To maximize the benefits of digital libraries and ICT services, it is recommended that the university and affiliated colleges invest in robust technological infrastructure, provide regular training for faculty and students, and promote a culture of digital literacy. Collaborative efforts between administrators, librarians, and IT professionals can further streamline adoption and ensure equitable access to digital resources.

Ultimately, the effective integration of digital libraries and ICT services can transform the academic landscape, fostering innovation, research, and student success in the digital age. Future studies should explore long-term impacts and evolving user needs to sustain this technological advancement.

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