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Analyzing The Impact Of Information Technology On Information Seeking Behavior Of Engineering College Library Users Under Jntuk: Students Perspective

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Abstract:
This research investigates the influence of information technology on the ways engineering college students seek and access information within libraries affiliated with Jawaharlal Nehru Technological University, Kakinada (JNTUK). The study focuses on gaining insights directly from students to comprehend how technological advancements have shaped their information-seeking behavior. By examining this perspective, the research aims to provide valuable insights into the evolving role of information technology in higher education libraries and its effects on student engagement with library resources.

Keywords: Information technology impact; Information seeking behavior; Engineering college students; JNTUK library; User perspective; Technological influence; Academic information retrieval.

1. Introduction

With the rapid evolution of information technology, educational institutions have witnessed significant changes in how students access, retrieve, and interact with information. This study endeavors to explore the intricate dynamics of this technological impact, specifically within the realm of library services and resources. The research centers its attention on students' viewpoints, thereby providing a comprehensive understanding of the firsthand experiences and perceptions that underpin their information-seeking behaviors in the contemporary digital age.

By focusing on engineering college students, who are emblematic of the modern technologically adept generation, the study seeks to discern the nuanced ways in which technological advancements have reshaped their interactions with library resources. The investigation will encompass an array of facets, including but not limited to, the utilization of digital databases, e-journals, online catalogs, and specialized search engines.

Through a meticulously designed research framework encompassing surveys, interviews, and possibly ethnographic observations, this study aims to uncover the underlying factors driving students' preferences and choices in utilizing information technology-rich library resources. The insights gleaned from this exploration will contribute to a deeper understanding

of how information technology has not only altered the landscape of information seeking but also influenced the very essence of engagement with knowledge repositories.

The outcomes of this research hold the potential to be of significant value to both academic libraries and higher education institutions. The findings may shed light on the necessity for the continuous adaptation of library services to cater to the evolving needs of students in the digital era. Furthermore, this study may offer valuable insights to inform strategic decisions related to the integration of emerging technologies and the optimization of user experience within the academic library context.

In essence, this research encapsulates a multidimensional analysis of the intricate relationship between information technology and the information-seeking behavior of engineering college students, offering a panoramic view of how technology-driven changes are shaping the academic exploration landscape.

In today's rapidly evolving technological landscape, information technology has profoundly transformed various aspects of our lives, including how we access and interact with information. In the realm of higher education, this impact is particularly noticeable in the way students seek and utilize information within academic libraries. This study aims to comprehensively explore the influence of information technology on the information-seeking behavior of engineering college students, specifically within the context of libraries affiliated with Jawaharlal Nehru Technological University, Kakinada (JNTUK).

The integration of information technology into the educational sphere has ushered in a new era of convenience, accessibility, and innovation. As students increasingly rely on digital resources, online databases, and electronic journals, academic libraries have witnessed a paradigm shift in the way information is sourced and consumed. This transformation has prompted researchers and institutions to critically examine how these technological advancements impact the traditional roles and functions of libraries, and more importantly, how they shape students' engagement with academic information.

Engineering college students, being emblematic of a generation deeply immersed in technology, are particularly intriguing subjects for this study. Their experiences provide insights into the changing nature of scholarly exploration, knowledge acquisition, and interaction with library services. By delving into their perspectives, this research seeks to uncover patterns, preferences, and challenges that emerge in this digitally-driven information landscape. Moreover, this study strives to bridge the gap between technological evolution and educational practices, offering insights that can inform the strategic alignment of library services with the evolving needs of students.

In light of these considerations, this research embarks on a journey to decipher the intricate interplay between information technology and the information-seeking behaviors of engineering college students. By investigating how these students navigate the digital realm of academic resources and interact with library services under the aegis of JNTUK, we aim to provide a deeper understanding of the evolving relationship between technology and scholarship. Ultimately, the findings of this study hold the potential to guide libraries and educational institutions in effectively adapting their strategies to cater to the dynamic information-seeking behaviors of contemporary students.

2. Literature review

Attitude of Library and Information Science Professionals Towards Resource Sharing and Networking of Academic Libraries (Ramadhas&SumanSankar, 2021): This study explores the positive attitude of Library and Information Science professionals towards resource sharing and networking among academic libraries in Tamil Nadu, India. The professionals acknowledge the importance of collaboration in maximizing the utilization of library resources and enhancing information access.

Resource Sharing and Networking in Agricultural College Libraries Under Jurisdiction Of Mahatma Phule Krishi Vidyapeeth: A Study (Kalbande, 2018): The research highlights how resource sharing and networking are essential for agricultural college libraries. These libraries supplement their local collections through cooperative arrangements, aiming to broaden the range of available materials and meet users' diverse needs.

Library 2.0 Technology in Academic Libraries, a Case Study of Librarian use and perception: Pakistan Perspective (Kardar, 2011): The study examines the implementation of Library 2.0 technology, focusing on how librarians in Pakistan use and perceive web-based tools. The technology, including blogs, RSS feeds, and social media, aids in enhancing information services and user engagement.

Resource Sharing and Networking among University Libraries in Northern Nigeria: A Proposal (Ali, Owoeye, & Anasi, 2010): This paper proposes a resource sharing and networking arrangement for university libraries in Nigeria, emphasizing the importance of collaboration in addressing the challenges of information provision. It outlines the benefits, structure, cooperation areas, and potential solutions for effective resource sharing.

A Study of Change Management on Digital Resource Sharing and Networking of Tamil Nadu Law Institution Libraries (Bagavathi, 2014): The study assesses the willingness of Tamil Nadu Law Institution libraries to adopt change management strategies in digital resource sharing and networking. The research employs a questionnaire to evaluate staff attitudes and readiness for embracing change.

Present Status of Library Cooperation, Networking, and Resource Sharing in Bangladesh: Web-Based Library Cooperation for Access to World-Wide Information (Mohd & Islam, 2012): This study analyzes the present status of library cooperation, networking, and resource sharing in Bangladesh. It underscores the importance of collaborative efforts in enhancing access to information resources and improving library services.

Resource Sharing and Networking of Engineering College Libraries (Chandra, 2002): This paper discusses the motivations, objectives, and potential areas for resource sharing in engineering college libraries. The study highlights success stories, the impact of resource sharing, and the pivotal role of these libraries in facilitating collaboration.

Resource Sharing and Networking in Library and Information Centres in Africa (Onwuchekwa, 2014): Emphasizing the significance of resource sharing in academic libraries, this paper analyzes its benefits, challenges, and impact on library services. It underscores that effective library networking and resource sharing can enhance user experiences and overall library effectiveness.

Networking and Resource Sharing of the Agricultural College Libraries in Maharashtra: A Study (Kalbande, 2016): The paper explores how agricultural college libraries in

Maharashtra utilize networking and resource sharing to address information challenges. It highlights the transition from traditional collections to shared digital repositories and emphasizes the importance of collaboration.

Resource Sharing Among ASEAN Libraries: Bridging the Information Divide (Chin & Zakaria, 2015): The study emphasizes the need for collaboration and resource sharing among ASEAN libraries to bridge the information divide. It outlines challenges and benefits of regional cooperation, urging libraries to exploit networking opportunities for global knowledge growth.

The literature critiques the challenges posed by information explosion for individual libraries and emphasizes resource sharing and networking as solutions. It highlights technology's role but stresses that positive attitudes and cooperation are essential. Various library types and global collaborations are discussed. Critically, funding, legal aspects, and technology constraints are acknowledged. The shift to digital resources is recognized. In essence, the literature underscores resource sharing's significance while addressing its complexities.

3. Hypothesis formulated

The detailed hypotheses formulated based on the problem of analyzing the impact of information technology on information-seeking behavior of engineering college library users under JNTUK, specifically from students' perspectives:

Hypothesis 1: The integration of information technology into engineering college libraries under JNTUK has significantly influenced the frequency and mode of information-seeking behavior among students.

Hypothesis 2: Engineering college students' dependence on traditional library resources such as physical books and printed materials has declined due to the proliferation of digital resources and online databases provided by JNTUK libraries.

Hypothesis 3: The accessibility and convenience offered by information technology have resulted in an increased tendency among engineering college students to engage in self-directed and independent information-seeking practices, with a preference for personalized research strategies tailored to their academic needs.

Hypothesis 4: The introduction of information technology into library services has led to changes in the perception of engineering college students towards the role and relevance of libraries. They now view libraries not only as physical repositories but also as dynamic digital platforms that facilitate collaborative learning, knowledge discovery, and innovative research practices.

These hypotheses serve as logical assumptions that guide the research by suggesting the potential relationships and effects that may exist between information technology, information-seeking behavior, and the perceptions of engineering college students. Through empirical investigation and data analysis, the study aims to validate or refute these hypotheses,

thereby contributing to a deeper understanding of the multifaceted impact of information technology on the educational landscape.

4. Impact of libraries on engineering colleges

The role of libraries in engineering education extends beyond the confines of physical repositories, transcending into essential catalysts for fostering comprehensive and innovative learning experiences. In the realm of engineering education, libraries serve as dynamic hubs that significantly contribute to students' academic growth and skill development.

Libraries play a pivotal role in providing access to a diverse array of resources, spanning from traditional printed materials to cutting-edge digital databases and e-resources. This abundance of information equips engineering students with the means to delve deeply into subjects, explore multidisciplinary connections, and stay abreast of the latest technological advancements.

Moreover, libraries facilitate the development of critical research skills by nurturing an environment conducive to independent inquiry. Students are encouraged to refine their abilities to evaluate sources, analyze data, and synthesize information – skills that are indispensable for successful engineering professionals. The library's role as a training ground for information literacy empowers students to navigate the vast sea of knowledge effectively and ethically.

Beyond the acquisition of information, libraries offer spaces for collaboration and innovation. Engineering education thrives on problem-solving and interdisciplinary collaboration, both of which are fostered within the library's walls. Group study areas, collaborative workspaces, and makerspaces provide platforms for students to engage in hands-on projects, brainstorming sessions, and knowledge exchange, mirroring the collaborative nature of engineering practice.

Furthermore, libraries contribute to the holistic development of engineering students by encouraging a passion for lifelong learning. Through workshops, seminars, and curated resources, students are exposed to emerging trends, research methodologies, and industry insights, preparing them to adapt to the ever-evolving landscape of engineering.

In essence, libraries wield a transformative influence on engineering education by being instrumental in cultivating a culture of inquiry, innovation, and lifelong learning. Their evolution from static repositories to dynamic hubs aligns seamlessly with the demands of modern engineering education, equipping students with the skills and mindset needed to thrive in a technology-driven world

5. Collection development requirements of engineering college students

Meeting the collection development requirements of engineering college students necessitates a nuanced understanding of their academic needs and the evolving landscape of engineering education. This process involves a thoughtful curation of resources that encompass traditional and digital materials, enabling students to access relevant and up-to-date information across various disciplines.

a. **Comprehensive Subject Coverage:** Engineering college students demand a diverse collection that covers core engineering disciplines such as mechanical, electrical, civil, and computer engineering, along with emerging fields like artificial intelligence,

sustainable technologies, and data science. Curating materials that cater to both foundational and specialized knowledge ensures that students have access to resources that align with their coursework and research interests.

b. **Digital Resources and E-Books:** Incorporating a robust selection of e-books, online journals, and digital databases is paramount. These resources provide students with the flexibility to access information remotely, fostering uninterrupted learning and research. E-books are particularly advantageous, as they allow multiple users to access the same text simultaneously, mitigating issues related to resource scarcity.
c. **Cutting-Edge Research Materials:** Engineering students thrive on access to the latest research publications, conference proceedings, and technical reports. To stay current, the library's collection should encompass a breadth of scholarly journals and databases that disseminate the forefront of engineering research, enabling students to engage with advancements in their field.
d. **Project-Based Learning and Practical Resources:** Incorporating resources that facilitate hands-on learning, such as instructional videos, technical manuals, and project guides, supports engineering students' practical application of theoretical concepts. These resources aid in project development, experimentation, and problem-solving, key elements of engineering education.
e. **Collaborative Spaces and Makerspaces:** Physical spaces that promote collaborative learning and experimentation are integral to the collection. These spaces should be equipped with tools and materials that encourage engineering students to engage in group projects, share ideas, and translate concepts into tangible prototypes.
f. **Access to Industry Standards and Codes:** Including resources that provide access to industry standards, codes, and regulations relevant to different engineering domains is vital. Engineering students need to be familiar with the practical implications of their work in alignment with established industry standards.
g. **Responsive to Student Feedback:** Regularly seeking student input on the collection's adequacy and relevance ensures that their needs are met effectively. Student advisory committees and surveys can serve as valuable sources of insight, guiding collection development decisions.
h. **Cross-Disciplinary Materials:** Given the interdisciplinary nature of modern engineering, the collection should incorporate materials that intersect with other fields such as business, ethics, sustainability, and design, fostering a holistic perspective among students.

In conclusion, fulfilling the collection development requirements of engineering college students involves a strategic balance between traditional and digital resources, aligning with their academic pursuits, and supporting their practical application of engineering concepts. This approach not only empowers students with comprehensive knowledge but also equips them to adapt and contribute effectively in the dynamic landscape of engineering.

6. Collection development of libraries

Collection development in libraries is a strategic process involving the thoughtful selection and acquisition of diverse and relevant materials to meet the informational needs of users. It encompasses:

- **Needs Assessment:** Identifying the informational needs of users based on their academic, research, and professional requirements.
- **Resource Selection:** Choosing materials such as books, journals, databases, and multimedia resources that align with users' interests and the institution's curriculum.
- **Budget Management:** Allocating resources effectively to acquire a balanced collection that caters to various disciplines and user preferences.
- **Diversity and Inclusivity:** Ensuring representation of diverse viewpoints, cultures, and perspectives within the collection to promote inclusivity.
- **Current and Timely Content:** Prioritizing materials that reflect the latest research, industry trends, and technological advancements to keep the collection up to date.
- **Accessibility:** Selecting formats (print, digital, audiovisual) that cater to different learning styles and enable easy access for all users.
- **Collaboration:** Engaging with faculty, students, and researchers to gain insights into their information needs and to foster a collaborative approach to collection development.
- **Continuous Evaluation:** Regularly assessing the collection's relevance, usage, and user feedback to make informed decisions for ongoing refinement.
- **Weeding:** Removing outdated or irrelevant materials to make space for new acquisitions and maintain the collection's quality.
- **Alignment with Mission:** Ensuring the collection aligns with the library's mission, institution's goals, and user community's evolving needs.

By adhering to these principles, libraries can build and maintain collections that serve as valuable resources for users' academic and research pursuits.

7. Implementation methodology

The implementation methodology based on a questionnaire involves a structured approach to gather information from respondents. It ensures systematic data collection, analysis, and interpretation. The following steps are followed:

- **Questionnaire Design:** Develop a well-structured questionnaire with clear, concise, and unbiased questions that align with the research objectives. Use a mix of closed-ended (quantitative) and open-ended (qualitative) questions to capture various aspects of the research topic.
- **Pilot Testing:** Administer the questionnaire to a small sample of participants to identify any issues, such as confusing questions or response options. Refine the questionnaire based on the feedback received.
- **Sampling:** Select a representative sample from the target population. Ensure that the sample size is statistically significant to draw meaningful conclusions.
- **Distribution:** Administer the finalized questionnaire to the selected respondents. This can be done through online platforms, email, physical distribution, or in-person interviews, depending on convenience and accessibility.

- **Data Collection:** Collect responses according to the predetermined method. Ensure clarity in instructions and provide contact information for queries.
- **Data Entry and Cleaning:** Enter the collected data into a suitable software or database. Clean the data by addressing inconsistencies, errors, and missing values.
- **Quantitative Analysis:** Analyze closed-ended responses using statistical tools. Calculate frequencies, percentages, averages, and correlations to identify patterns and trends.
- **Qualitative Analysis:** For open-ended responses, conduct thematic analysis to identify common themes, sentiments, and opinions expressed by respondents.
- **Interpretation:** Interpret the results by comparing quantitative findings with qualitative insights. Draw meaningful conclusions based on the data analysis.
- **Discussion:** Discuss the implications of the findings in the context of the research objectives. Relate the results to existing literature and provide insights into the research topic.
- **Recommendations:** Based on the findings, make relevant recommendations or suggestions for improvements, interventions, or changes.
- **Reporting:** Compile the results, analysis, and interpretations into a clear and concise report or presentation. Ensure that the information is organized logically and effectively communicates the research outcomes.

By following this methodology, researchers can systematically collect and analyze data from the questionnaire, leading to valuable insights that contribute to the research's objectives and shed light on the research questions

8. Results and Analysis

This section presents the detailed analysis of the data collected from 28 autonomous engineering college Librarians and students. At first, the questionnaires were distributed to all the autonomous engineering college Librarians and the students of the respective college departments. The responses from the students are analyzed in this chapter to validate the formulated hypothesis.

College wise classification of student respondents

The classification of respondents based on the students' respondents'number is 664 students from 28 colleges were responded.

The details of questionnaires distributed and received based on district wise are tabulated in Table.1 From this table, it is noticed that 840 questionnaires were distributed to students according to district wise in five districts.

Table.1 District wise student respondents from autonomous engineering colleges

S. No	Name of the District	Questionnaires Distributed	Questionnaires Received	Percentage (%)
1	East Godavari	150	116	77.33
2	Guntur	150	139	92.67
3	Krishna	270	199	73.7

4	Prakasam	90	76	84.44
5	West Godavari	180	134	74.44
Total		**840**	**664**	**79.05**

Library users

The classification of respondents based on their educational qualifications are asked to fill their educational qualifications from graduation to highest educational qualification and the variation is shown in Fig.1 From this it is observed that, the highest respondent students are from B.Tech 367(55.27%), next comes to M.Tech 125(1.83%), B.Pharmacy 96 (14.46%), Pharm.D 76 (11.45%),

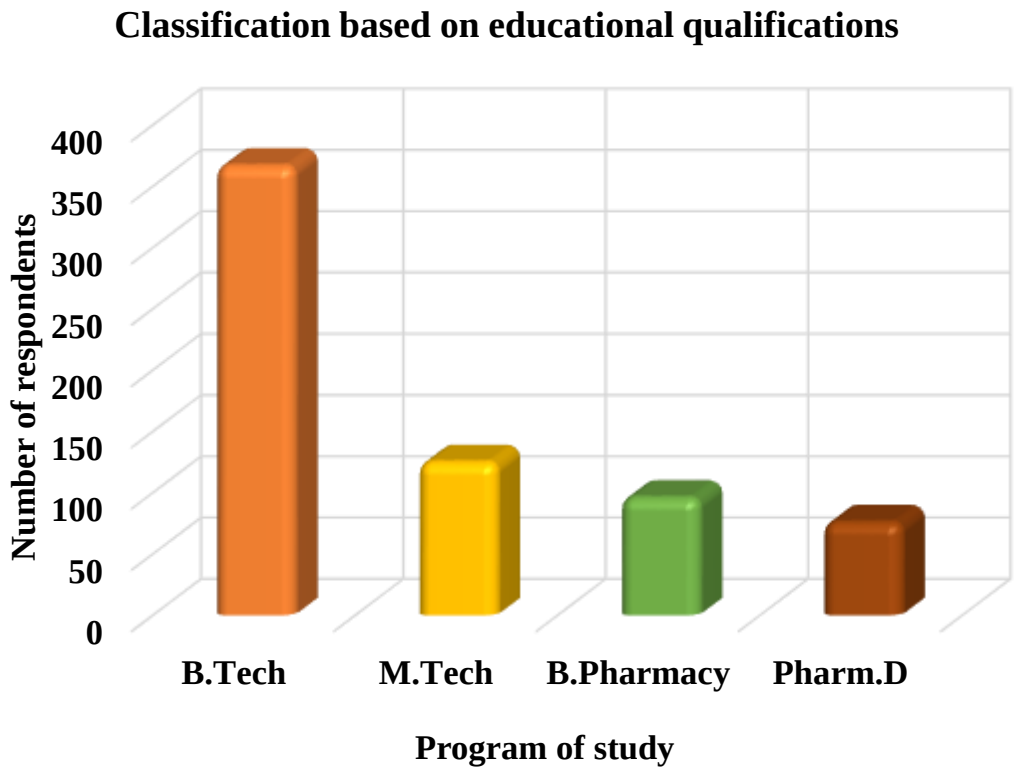

Fig.1 Variation of student respondents based on educational qualifications

Learning resources

The main vision of library is to give the relevant information sources and services in best possible ways. Basically, learning resources are in two different formats that is print and electronic resources. Some examples of print resources are Books, Dictionaries, Theses, periodicals, back volumes of periodicals, Directories, project reports. Whereas Electronic resources like E-Books, E-Journals, Databases, CD's, DVD's etc. This module describes about the classification of respondents based on type of resources available in the responded colleges in Table 2. From this table it is identified that, The Learning resources are classified in to twelve different types. The highest student respondents are Books as Learning resource 645(97.14%), whereas the lowest student respondents for using Microfilms126(18.98%) learning resource. It is illustrated that many student respondents are using Electronic journals536 (80.72%),

followed by Journals/Magazines 234(35.24%), Theses and Dissertations 203(30.57%), Online database 197(29.67%) Number of back volumes Encyclopaedias 187(28.16%), Survey reports 178(26.81%), Audio-Video materials 155(23.34%), CD-ROM database 129(19.43%), Microfilms 126(18.98%), others 104(15.66%). This is noticed in this Table that all college libraries are maintaining all the required learning resources whereas the highly available learning resources are Books and Electronic collection.

Table.2 Classification of student respondents based on type of resource available

S. No	Type of resource available	Number of respondents	Percentage (%)
1	Books	645	97.14
2	Journals/Magazines	234	35.24
3	Number of back volumes	187	28.16
4	Theses and Dissertations	203	30.57
5	Survey reports	178	26.81
6	Encyclopaedias	187	28.16
7	Audio-Video materials	155	23.34
8	CD-ROM database	129	19.43
9	Online database	197	29.67
10	Electronic journals	536	80.72
11	Microfilms	126	18.98
12	Others	104	15.66

This module describes about the various types of resources used by the students in responded colleges. The data indicates that books are the most frequently used resource, with 85.69% of respondents reporting daily usage. Additionally, online databases and electronic journals also see significant usage, with 42.92% and 46.84% of respondents, respectively, using them, suggesting a strong reliance on digital resources among the respondents. From the statistical analysis of student respondents based on type of library resources used in responded college libraries are analyzed by using Chi-Square test which is a nonparametric test useful to test the hypothesis that there is no association between two or more variables and to test how likely the distribution of data fits with the expected result and used to analyse the classified data. From the result it is confront that the nature of the relationship is significant.

Table.3 Statistical analysis of student respondents based on type of library resources used

Chi-square test	
Chi-square value	109.882
Probability value	0
Degrees of freedom	04
Level of significance	0.9

Table value	1.064
Nature of relationship	Significant

This module describes about the of student respondents based on purpose of library usage is shown in Fig.3.At first the classification of student respondents based on the purpose of visit the library is classified in to five different types i.e., Teaching, Research. Publications, to keep abreast of current trends, to use the internet in the library.

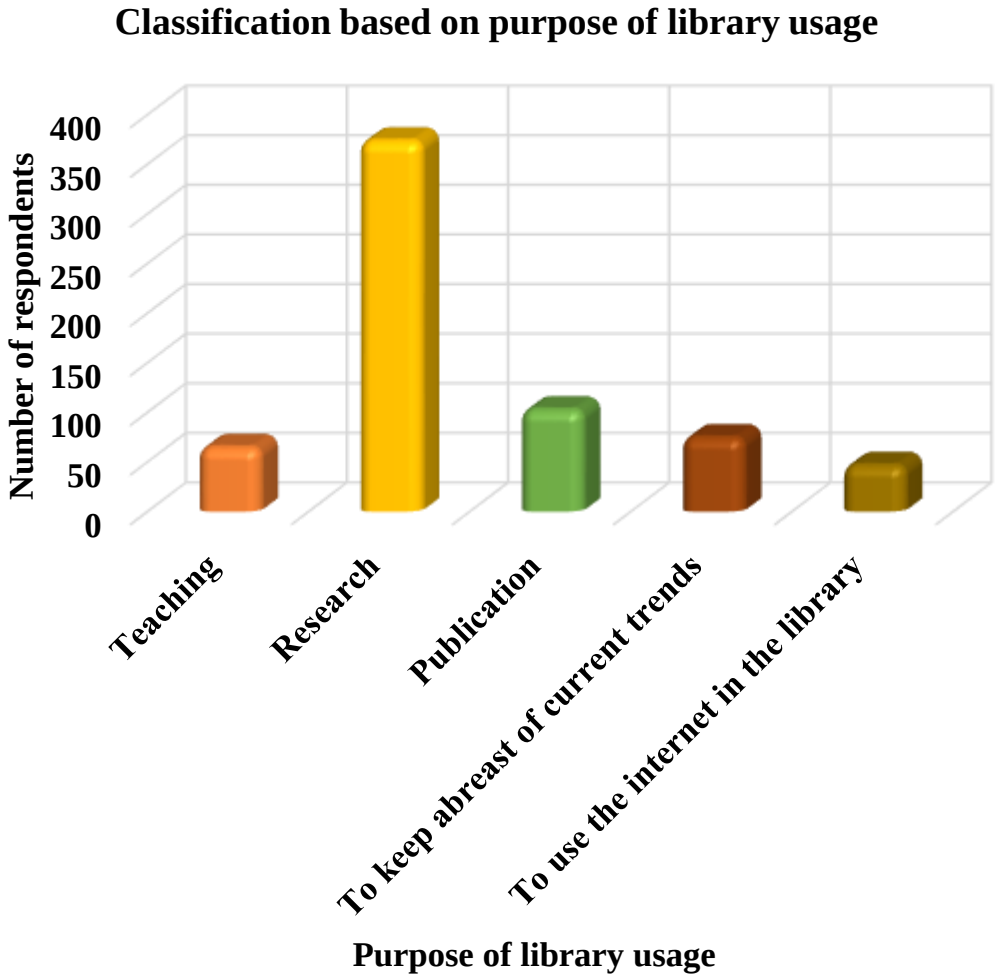

Fig.2. Variation of student respondents based on purpose of library usage

Information technology

Information plays vital role in our working and day to day life. It is the duty of every library to maintain information resources according to the needs of the users in easy and quickest way. Information Technology paves the way to manage information very efficiently is shown in Fig.2. From this it is identified that most of the colleges are using of Computers, printers, server, scanners, xerox machines and other IT infrastructures are used by the student respondents in the responded colleges.

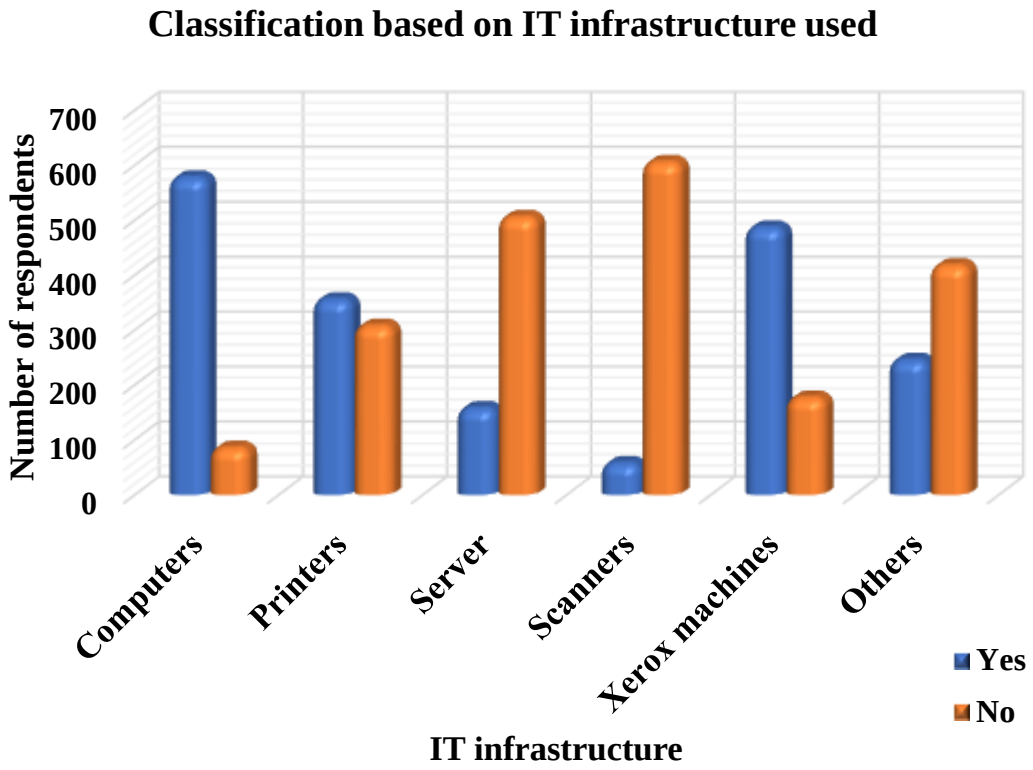

Fig.3. Variation of student respondents based on IT infrastructure used

E-resources are very essential for the academic as well as the research purpose in Educational Institutions. Most of the responded college libraries are facilitating e-resources. There are different types of e-resources i.e., CD-ROM Titles, e-Database, e-Journals, e-Reports, e-Content pages, e-Clippings, e-Books and in other forms.

Table.4. Classification of student respondents based on type of e-resources available

S. No	Type of e-resource	Number of respondents	Percentage (%)
1	CD-ROM Titles	198	29.82
2	e-Database	225	33.89
3	e-Journals	438	65.96
4	e-Reports	282	42.47
5	e-Content pages	311	46.84
6	e-Clippings	106	15.96
7	e-Books	514	77.41
8	Others	167	25.15

The table indicates a varied reliance on informal and interpersonal sources for information and guidance. Consulting other scholars in the subject concerned (39.16%) and hearing speeches of subject experts (34.64%) emerge as highly depended upon sources, highlighting the value placed on expert opinions and peer interaction in the respondents' information-seeking

practices. Additionally, library staff and catalogues are frequently consulted (30.27%), signifying the importance of institutional resources in the information-seeking process.

The students exhibit varied engagement levels with different library services. Borrowing books and journals/periodicals circulation are the most frequently used services, with 73.94% and 53.62% respectively engaging completely, while current awareness and reference services are moderately used, and services like translation and selective dissemination of information (SDI) see relatively lower complete engagement levels at 57.53% and 47.74% respectively.

E-Resource collection

The classification of student respondents based on the status of priority about the location of accessing e-resources isobserved that the highest priority giving to accessing e-resources by the student respondents in Library 432(65.06%), in Department 304(45.78%), Residence/Hostel 248(37.35%), Campus browsing centre 154(23.19%) and others 46(6.93%).

E-resources are very essential for the academic as well as the research purpose in Educational Institutions. Most of the responded college libraries are facilitating different types of e-resources i.e., CD-ROM Titles, e-Database, e-Journals, e-Reports, e-Content pages, e-Clippings, e-Books and in other forms.Classification of respondents based on types of e-resources used are tabulated in the Table.6.25. It is observed that the usage of e-journals/magazines 542(81.63%), next comes to e-learning materials523(78.77%), E-books 436 (65.66%), followed by e-newspapers 378(56.93%), e-research reports 345(51.96%), e-reference sources 314(47.29%), Abstracting and indexing databases 156(23.49%), and others 120(18.07%).

Table.5. Status of priority about the type of e-resources used

S. No	Type of e-resource	Number of respondents	Percentage (%)
1	e-books	436	65.66
2	e-research reports	345	51.96
3	e-learning materials	523	78.77
4	e-reference sources	314	47.29
5	e-journals/magazines	542	81.63
6	e-thesis & dissertations	98	14.76
7	Abstracting and indexing databases	156	23.49
8	e-news papers	378	56.93

The classification of student respondents based on Status of priority about the problems experienced while using e-resources is tabulated in Table.6. In this table it is noticed that while using e-resources what are the problems experienced by the student is classified into six divisions Inadequate infrastructure facilities, very short time to access, Power failure, Internet speed is less, Poor personal assistance and other

Experiences while using e-resources. it is noticed that the main problem experienced while using e- resources by the students are Inadequate infrastructure facilities 317 (47.74%),

followed by very short time to access211(31.78%), Poor personal assistance203(30.57%), Internet speed is less181(27.26%), Power failure76(11.45%), and others 123(18.52%).

Table.6 Status of priority about the problems experienced while using e-resources

S. No	Problem description	Number of respondents	Percentage (%)
1	Inadequate infrastructure facilities	317	47.74
2	Very short time to access	211	31.78
3	Power failure	76	11.45
4	Internet speed is less	181	27.26
5	Poor personal assistance	203	30.57
6	Others	123	18.52

The classification of student respondents based on priority about the preference to access online journals tabulated in Table.7. In this table, the priority given by the student respondents to use the online journals in the library. it is noticed that the preference was classified into 6 priorities that is using of Library websites, Publisher websites, Consortia provider websites, Aggregators/vendors sites, Directories, and other sources to access online journals by the student respondents. It is found that most of the students are depend on Publisher websites479(72.14%), followed by Directories372 (56.02%), Consortia provider websites 251(37.8%), Aggregators/vendors sites 208(31.33%), Library websites 176 (26.51%), and other resources to access online journals.

Table.7. Status of priority about the preference to access online journals

S. No	Preferences	Number of respondents	Percentage (%)
1	Library websites	176	26.51
2	Publisher websites	479	72.14
3	Consortia provider websites	251	37.8
4	Aggregators/vendors sites	208	31.33
5	Directories	372	56.02
6	Others	138	20.78

This module describes about the status of priority about the advantages in accessing e-resources. At first, the status of priority about the advantages in accessing e-resources by the student respondents is tabulated in Table.8. From this table, it is identified that 578(87.05%) are spending less time in searching e-resources, where as Availability of the journal much before the printed copy 473 (71.23%), Simultaneous usage389 (58.58%), Easy accessibility508 (76.51%), Downloading facility381 (57.38%), Author can be contacted directly through e-mail203 (30.57%), Archival facility 239 (35.99%), Others 126(18.98%).

Table.8 Status of priority about the advantages in accessing e-resources

S. No	Advantages	Number of respondents	Percentage (%)
1	Less time in searching	578	87.05
2	Availability of the journal much before the printed copy	473	71.23
3	Simultaneous usage	389	58.58
4	Easy accessibility	508	76.51
5	Downloading facility	381	57.38
6	Author can be contacted directly through e-mail	203	30.57
7	Archival facility	239	35.99
8	Others	126	18.98

This module describes about the status of priority about the difficulties faced in accessing the information. Classification of student respondents based on status of priority about the difficulties faced in accessing the information by the responded student respondents s is tabulated in Table 6.31. At first, the status of priority Status of priority about the difficulties faced in accessing the information is classified into 5 different types majority of the student respondents facing difficulty because of Instability of networks 402(60.54%), Broken links348 (52.41%), Language barriers291(43.83%), Information overload274 (41.27%) and Others 105(15.81%).

Table.9. Status of priority about the difficulties faced in accessing the information

S. No	Difficulties faced	Number of respondents	Percentage (%)
1	Language barriers	291	43.83
2	Broken links	348	52.41
3	Instability of networks	402	60.54
4	Information overload	274	41.27
5	Others	105	15.81

This module describes about the reasons for not satisfying with the e-resources in the student responded colleges. At first the reason for not satisfied by the student respondents with the e-resources provided by the responded colleges are tabulated in Table 6.32. it is articulated that the high level of dissatisfaction because of Insufficient e-resources 408(61.45%), followed by Failure of hardware & software affect the functioning of e-resources section 306(46.08%), Lack of proper e-resources 301(45.33%) Lack of portability in contrast with original Print materials 293 (44.13%), Technical problems 278 (41.87%), Lack of proper guidance 214 (32.23%), Lack of printing facilities 207 (31.17%), Lack of knowledge about tools & technologies used for searching and retrieving of e-resources 164 (24.7%), Less opening time 137 (20.63%) Charges to access e-resources 98(14.76%). From the below table it is find that student dissatisfaction level is high due to insufficient e-resources in the responded colleges, it is very essential to provide e-resources for the students for their academic and research purpose.

Table.10Status of priority about the reasons for not satisfying with the e-resources

S. No	Reasons	Number of respondents	Percentage (%)
1	Less opening time	137	20.63
2	Charges to access e-resources	98	14.76
3	Lack of proper guidance	214	32.23
4	Lack of proper e-resources	301	45.33
5	Lack of printing facilities	207	31.17
6	Insufficient e-resources	408	61.45
7	Technical problems	278	41.87
8	Lack of portability in contrast with original Print materials	293	44.13
9	Failure of hardware & software affect the functioning of e-resources section	306	46.08
10	Lack of knowledge about tools & technologies used for searching and retrieving of e-resources	164	24.7

9. Conclusions

Resource sharing and networking have become essential strategies for libraries to address the information explosion. Collaboration among libraries is crucial, as no institution can house all necessary resources. Attitudes of information professionals greatly influence the success of sharing initiatives. Transitioning from ownership to access-based services redefines libraries' roles. Challenges, such as funding and legal issues, require collaborative solutions. Successful models demonstrate the value of collective efforts. Globalization further emphasizes networking's significance. In the digital age, user-centric approaches and cooperative endeavors ensure libraries' continued relevance.

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