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Awareness and Usage of ICT-Based Library and Information Services among the Library Users of Vivekanand Central Library of Central University of Jharkhand, Ranchi: A Case Study

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ABSTRACT

This study investigates the awareness, usage, and satisfaction levels of ICT-based library and information services among users of Vivekanand Central Library, Central University of Jharkhand, Ranchi. Using a structured questionnaire distributed to 125 participants, with a 91.20% response rate, the research explores demographic insights, frequency of library visits, primary purposes for access to library services, and satisfaction levels. The relevant data was analysed using SPSS statistical analysis software. Further, mean, standard deviation and simple percentage were calculated for different variables. Key findings reveal a preference for print resources over electronic formats, with RFID-based automated issue-return being the most utilized ICT service. Challenges like low Internet connectivity and unawareness of available resources were identified, alongside moderate satisfaction levels with ICT-based services. Recommendations include improving internet access, expanding ICT training sessions, and enriching the library's digital collections to serve user needs better. This case study underscores the evolving role of academic libraries in integrating technology to enhance user engagement and accessibility.

1. Introduction

Information Communication Technology (ICT) has transformed library services by enhancing the accessibility, organisation, and dissemination of information. Libraries now leverage ICT to automate cataloguing, circulation, and acquisition processes, making them more efficient and user-friendly. Digital libraries, online catalogues (OPACs), and electronic resources like e-books, e-journals, and databases provide users with 24/7 access to information. ICT tools

also enable seamless inter-library loan services and resource sharing, expanding access beyond physical boundaries. Additionally, ICT facilitates personalized user experiences through digital reference services, virtual assistance, and mobile applications. By integrating advanced technologies such as Radio Frequency Identification (RFID), artificial intelligence, data analytics, and cloud computing, libraries can better meet the evolving needs of their patrons in the digital age. Overall, ICT has redefined the role of libraries from mere information repositories to dynamic hubs for

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knowledge access and collaboration.

1.1 Vivekanand Central Library

The Vivekanand Central Library is the Central Library of the Central University of Jharkhand, Ranchi. It is the heart of the University's academic system, providing direct educational and research support to all the departments. It was set up at the very beginning, with the establishment of the university in 2009. However, the central library shifted to the newly constructed library building on 14th July 2023 and named the Vivekanand Central Library Building. The Vivekanand Central Library is fully automated in respect of records management, search and discovery, information retrieval, and service delivery. All library operations run on an Open-source Integrated Library Management Software (ILMS) KOHA. The library has a collection of several databases of books, journals, theses & dissertations, conference proceedings and many more to fulfil the academic needs of its users. The Vivekanand Central Library is equipped with an RFID-based security system, and a CCTV surveillance system is also installed to keep track of library resources and users to provide smooth library services.

2. Review of Literature

Talwar and Naikar (2024) explored the awareness, usage, benefits, challenges, and impact of electronic resources among research scholars in the Faculty of Social Sciences at Karnatak University, Dharwad. Using a systematic questionnaire distributed to 100 scholars, 84 responses were received, yielding an 84% response rate. Findings indicate that most respondents were aware of various e-resources, significantly influencing their academic activities. The study aims to identify usage patterns, frequency, challenges, satisfaction levels, and search techniques employed by scholars. It concludes with recommendations for enhancing library services and organising effective end-user training programs to improve e-resource utilisation. **Suman, Tanti and Patel (2023)** surveyed the usage of web resources among the users of Atal Bihari Vajpayee (ABV) Central Library of MGCUB and found that the majority (90.56%) of respondents accessed the online or web or Internet resources to fulfil their study and research need. Most (94.34%) of respondents consider web resources reliable. Time-saving, 24x7 accessibility, ease of searching and attractive user interface were the most stunning features of web resources. **Ankamah, Gyesi and Amponsah (2022)** studied the acceptance and use of electronic resources among users of the College of Health Sciences Library at the University of Ghana. Using a survey of 128 respondents, researchers found that most library users were aware of and utilized

e-resources like Google, ScienceDirect, and PubMed. Computer literacy positively influenced awareness, while gender had no significant effect on perceived usefulness. Challenges included high internet costs and low bandwidth. Recommendations include regular training and integrating e-resources into teaching to enhance utilization. **Jindal, Khan and Roy (2020)** examined the awareness and usefulness of ICT-enabled information services offered by the central university libraries of Delhi and the National Capital Region (NCR). Focusing on central universities ranked by NIRF 2017, the study employs a combination of content analysis and structured questionnaires directed at both librarians and patrons. The research investigates five specific ICT services chosen based on a thorough review of existing literature. It classifies patron responses into three categories: 'Aware and Useful,' 'Aware but Not Useful,' and 'Not Aware'. The findings indicate that while most (69.9%) of patrons are aware of the ICT services, only 50% find them useful, suggesting a gap between awareness and practical utility. The paper sheds light on the challenges and opportunities for university libraries to enhance the effectiveness of these services. **Ogunbodede et al. (2020)** assessed the level of user satisfaction with the St. Albert the Great Major Seminary School library's resources and services. Conducted via survey methodology, it evaluates responses from 90 students using structured questionnaires. The findings indicate frequent library use, primarily for assignments, test preparation, and textbook consultation, with overall satisfaction regarding available resources and services. The study identifies two significant challenges: restrictions on borrowing books and inadequate information resources. Recommendations include revising the borrowing policy and expanding the library's collection. The article effectively highlights the importance of user feedback in enhancing academic library services. **Kona, Chagari and Rudraksha (2017)** provided an in-depth evaluation of library resources and services across four deemed university libraries in Andhra Pradesh, India. The authors used the survey methodology and analyzed the libraries' infrastructure, collection development, library services, and user satisfaction levels based on responses from students, research scholars, and faculty members. Key findings of the study include Lending and digital library services, which were the most utilised, with varying frequencies of library visits among the institutions. Most of the respondents expressed satisfaction with the libraries' working hours, physical facilities, and services like lending, digital access, and reprographic services. Limited usage of OPAC and inter-library loans were identified as areas for improvement. **Tiemo and Ateboh (2016)** investigated library users' satisfaction levels concerning available resources and services in the College of Health Sciences Library Niger Delta University, Amassoma, Nigeria. Using a survey of 180 respondents, the study finds that users are satisfied with lending services, renewal processes, and extended internet access hours.

However, dissatisfaction exists regarding outdated reference materials, inadequate national and international journals, limited electronic resources, and insufficient computers. The article emphasises the need for enhanced funding, updated collections, and improved services to meet user expectations effectively. It provides valuable insights into areas requiring attention for better library management and user satisfaction.

3. Objectives of the Study

- i. To identify the major ICT-based services availed by the users.
- ii. To identify the type of e-resources mostly used by the users.
- iii. To identify the problems encountered by users while accessing e-resources.
- iv. To know the user satisfaction regarding the digital collection of the library.
- v. To know the overall users' satisfaction with existing ICT-based library services.

4. Scope and Methodology

5. Data Analysis and Interpretation

The present study investigates the awareness and Usage of ICT-Based Library and Information Services among the Library Users of Vivekanand Central Library of the Central University of Jharkhand, situated in Ranchi, Jharkhand. The proposed study is descriptive, and a survey method has been used to collect the data with the help of a structured questionnaire. A total of 125 questionnaires were distributed among the library users, and 114 valid responses were received. Hence, the response rate was only 91.20 %. After that, the collected data were processed and analyzed using the statistical analysis software SPSS. The extracted data were administered to learn about the mean, standard deviation (S.D.), and percentage.

Table 1 shows the demographic details of the respondents' gender, residing area, age group and course of study about the users of Vivekanand Central Library of Central University of Jharkhand (CUJ). It shows that the majority of 64.92% of respondents are male, and only 35.08% are female. 57.90% of respondents reside in urban areas, while 42.10% belong to rural areas. Most of the library users are less than twenty-five years old. The majority of users (63.16%) are in undergraduate courses.

Table 1: Characteristics of Respondents

Characteristics	Variables	No. of Respondents	Percentage (%)
Gender	Male	74	64.92
	Female	40	35.08
	Total	114	100.00
Residing Area	Rural	48	42.10
	Urban	66	57.90
	Total	114	100.00
Age Group	< 25 Years	96	84.22
	25-30 Years	12	10.52
	31-35 Years	4	3.50
	36 Years & above	2	1.76
	Total	114	100.00
Course of Study	UG	72	63.16
	PG	24	21.06
	Integrated UG-PG	10	8.78
	PhD	8	7.00
	Total	114	100.00

Table 2: Library Visit Frequency of Users

Sl. No.	Library Visit Frequency	No. of Respondents	Percentage (%)
1	Daily	58	50.88
2	Once in a Week	11	9.64
3	Twice a Week	25	21.93
4	Monthly	2	1.76
5	Occasionally	18	15.79
	Total	114	100.00



Figure 1: Library Visit Frequency of Users

Table 2 and Figure 1 represent the library visit frequency of users. It shows that out of 114 respondents, most of the users visit the library on a daily basis. After that, 21.93% of users visit the library twice a week, 15.79% of users visit the library occasionally, 9.64% of users visit the library once a week, and very less than 1.76% of users visit the library at monthly intervals.

Table 3: Main Purpose of Visiting the Library [Multiple choice]

Sl. No.	Purpose of Library Visit	No. of Respondents		Mean	SD
		Yes	No		
1	To borrow/return books	78 (68.42%)	36 (31.58%)	1.315	0.466
2	To read newspapers and magazines	40 (35.08%)	74 (64.92%)	1.649	.0479
3	To access library Internet & e-resources	58 (50.87%)	56 (49.13%)	0.149	0.502
4	To read print subject books	86 (75.43%)	28 (24.57%)	1.245	0.432
5	To complete class assignments	62 (54.38%)	52 (45.62%)	1.456	0.500
6	To self-study/ group study	98 (85.96%)	16 (14.04%)	1.140	0.348

7	To consult thesis & dissertations	18 (15.78%)	96 (84.22%)	1.842	0.366
8	To do research work	8 (7.02%)	106 (92.98%)	1.929	0.256
9	To leisure reading	26 (22.80%)	88 (77.20%)	1.771	0.421

Table 3 reveals the main purpose of users to visit the library. The majority of 85.96% of users visit the library for self-study and group study purposes, with a mean value of 1.140 and a standard deviation (SD) value of 0.348. After that, 75.43% of users visit the library to read print books, with a mean value of 1.245 and an SD value of 0.432. Similarly, 68.42% of users visit the library to borrow or return books, having a mean value of 1.315 and an SD value of 0.466. 54.38% of users visit the library to complete their class assignments, having a mean value of 1.456 and a highest SD value of 0.500. 50.87% of users visit the library to access library Internet & e-resources, having a mean value of 0.149 and the highest SD of 0.502. 22.80% of users visit the library for leisure reading, with a mean value of 1.771 and SD of 0.421. 15.78% of users visit the library to consult thesis and dissertations, with mean values of 1.842 and SD 0.366, while only 7.02% of users come to the library to do their research work having a mean value of 1.929 and SD 0.256.

Table 4: Main Reason for Not Visiting the Library Frequently [Multiple choice]

Sl. No.	Reason to not Visit the Library Frequently	No. of Respondents	Percentage (%)
1	Access Library Resources Online	6	5.26
2	Shortage of Time	62	54.38
3	Required Resources Not Available	14	12.28
4	Inconvenient Library Hours	8	7.02
5	To Do Research Work	2	1.76
6	Slow Internet Speed	6	5.26
7	Library Situated in Other Campus	16	14.04
Total		114	100.00

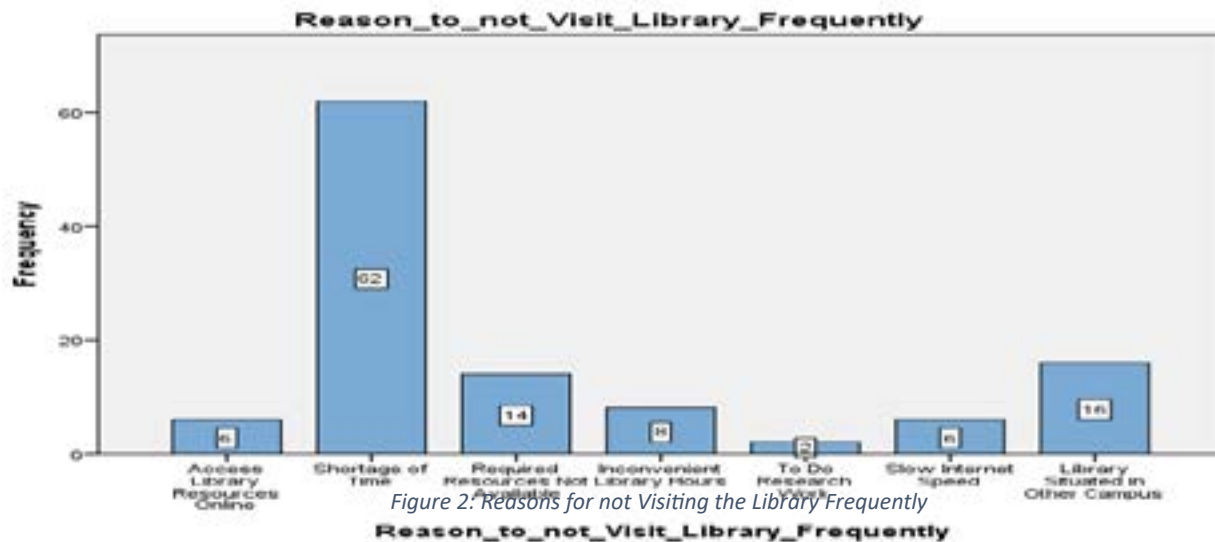


Table 4 and Figure 2 determine the main reason for not visiting the library frequently by the users. The majority (54.38%) of respondents did not visit the library because of a shortage of time. After that 14.04% of respondents not visit the library

because of library situated in another campus, 12.28% of respondents not visit the library because of their required resources not available in the library, 7.02% of respondents has chosen inconvenient library hours as a reason for not visiting the library frequently. 5.26% of respondents not visit the library due to the slow Internet speed of the library and they access library resources online or remotely. Lastly, 1.76% of respondents chose to do research work as a reason not to visit the library.

Table 5: Average Time Spend by Users in Library

Sl. No.	Time Duration	No. of Respondents	Percentage (%)
1	Half an hour	6	5.27
2	One hour	12	10.52
3	Two hours	46	40.35
4	Four hours	36	31.58
5	Six or more hours	14	12.28
Total		114	100.00

of respondents spend an average of two hours in the library. After that, 31.58% of respondents spend an average of four hours in the library, and 12.28% of respondents spend an average of six or more than six hours in the library. While 10.52% of respondents spend an average of one hour in the library and very few, 5.27% of respondents spend only half an hour in the library. Table 6 reveals the major ICT-based library services availed by the users of the library. Most of the users (84.21%) avail automated issue-return (self-check-in, check-out) service of the library with a mean value of 1.157 and SD value of 0.366. The second most availed ICT-based library service among the users is the Online Public Access Catalogue (OPAC) service. Almost 43.58% of users avail the Online Library Catalogue service of the library with a mean value of 1.561 and the highest SD value of 0.497. The third most availed ICT-based library service among the users are the Online Electronic Resources Access service and E-mail Alert service of the library, which availed by 36.84% of respondents, having a mean value of 1.631 and SD of 0.484, respectively. High-speed Internet service is the fourth most available and popular service among users. Around 35% of users avail the high-speed Internet service with a mean value of 1.649 and SD value of 0.479. Similarly, online late fine payment and online book recommendation services avail by 26.31% of users with a mean value of 1.736 and SD value of 0.442, respectively. While In-house Digital Collection

Table 5 and Figure 3 show the average time spent by the users in the library. The majority (40.35%)

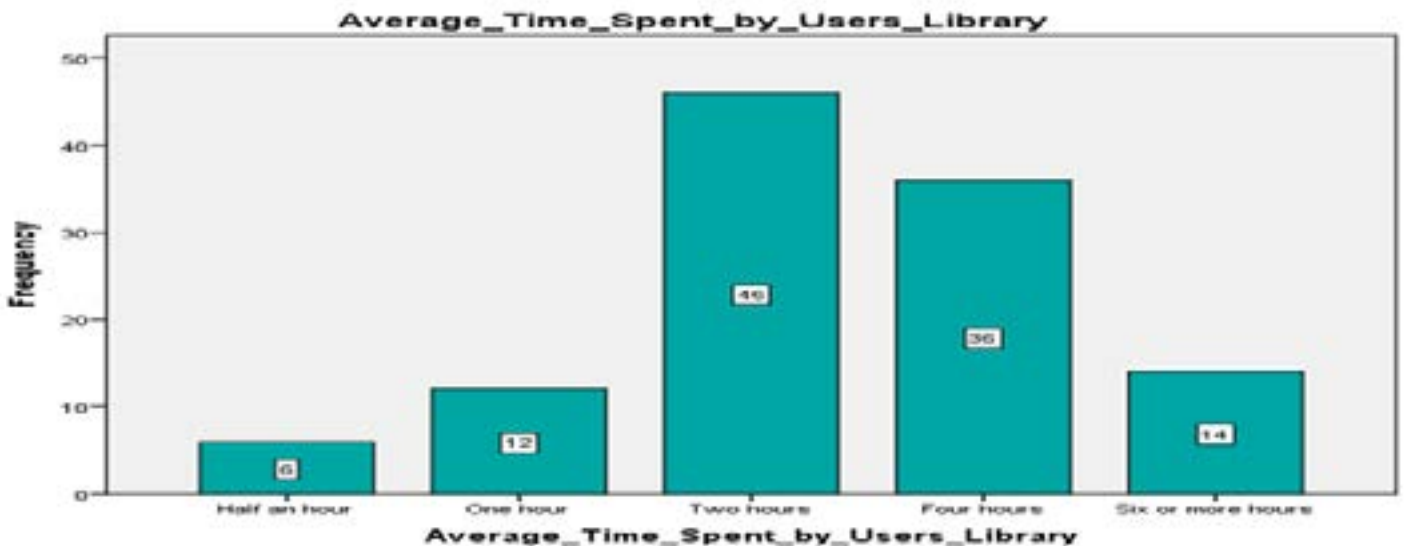


Figure 3: Average Time Spent by the Users in the Library

Table 6: Major ICT-based Library Services Availed by the Users [Multiple choice]

Sl. No.	ICT-based Services Availed by the Users	Yes	No	Mean	S.D.
1	Automated Issue-Return of Books (RFID Service)	96 (84.21%)	18 (15.79%)	1.157	.366
2	Online Library Catalogue (OPAC/Web OPAC)	50 (43.85%)	64 (56.15%)	1.561	.497
3	Online Access of Electronic Resources	42 (36.84%)	72 (63.16%)	1.631	.484
4	In-house Digital Collection	6 (5.26%)	108 (94.74%)	1.929	.256
5	Online Reservation of Books	22 (19.30%)	92 (80.70%)	1.824	.382
6	Digital Reference/Information Service	12 (10.52%)	102 (89.48%)	1.894	.308
7	High-Speed Internet Service	40 (35.08%)	74 (64.92%)	1.649	.479
8	Online Late Fine Payment	30 (26.31%)	84 (73.69%)	1.736	.442
9	Online Book Recommendation	30 (26.31%)	84 (73.69%)	1.736	.442
10	Research Support Service (Grammarly/Plagiarism Detection Service etc.)	18 (15.78%)	96 (84.22%)	1.850	.357
11	Online User Education/ Orientation Program	14 (12.28%)	100 (87.72%)	1.877	.329
12	E-mail Alert/ Instant Messaging Service	42 (36.84%)	72 (63.16%)	1.631	.484
13	Computer Lab Service	24 (21.05%)	90 (78.95%)	1.789	.409

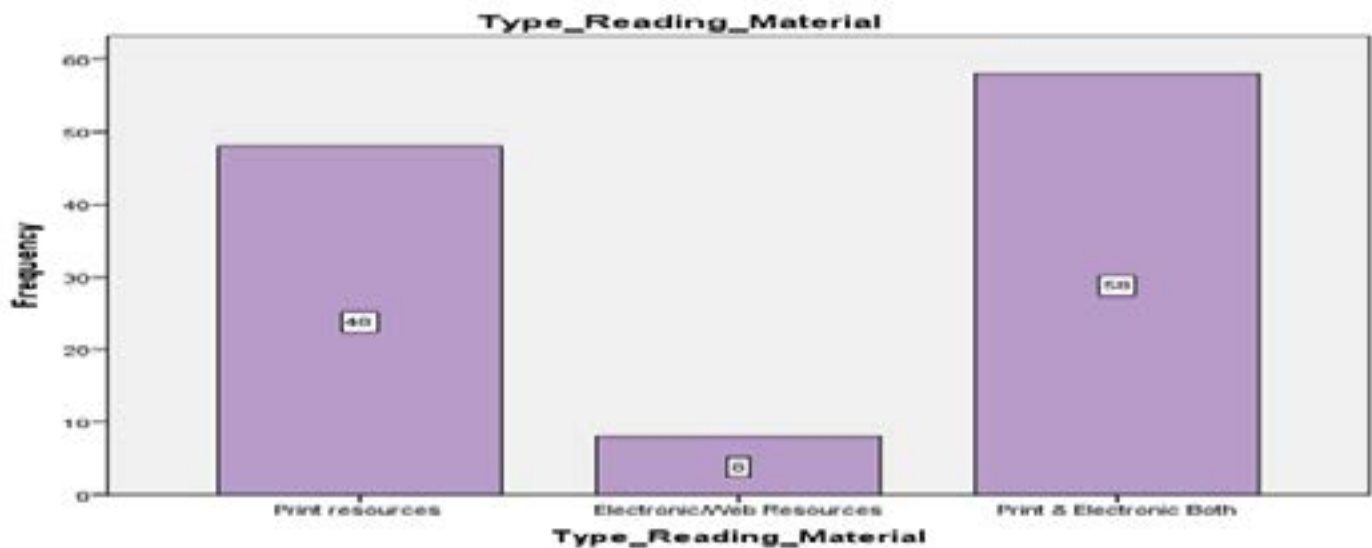


Figure 4: Type of Reading Materials Preferred by Users

Table 7 and Figure 4 show the type of reading resources that users prefer the most. Almost half, i.e. 50.88% of respondents, prefer both print and electronic resources. Although, 42.10% of respondents prefer print resources while, only 7.02% of respondents prefer electronic or web resources for their study and research.

service is avail by only 5.26% of users, with the highest mean value of 1.929 and SD value of 0.256 only.

Table 7: Type of Reading Material/Resources Mostly Prefer by the Users

Sl. No.	Type of Reading Material	No. of Respon-dents	Percentage (%)
1	Print Resources	48	42.10
2	Electronic/ Web Resources	8	7.02
3	Print & Elec-tronic Both	58	50.88
Total		114	100.00

Table 8: Opinion About Overall Collections Available in the Library of Your Subject

Sl. No.	Opinion Variables	No. of Respondents	Percentage (%)
1	Highly Useful	24	21.06
2	Moderately Useful	68	59.65
3	Slightly Useful	18	15.78
4	Not Useful	4	3.51
Total		114	100.00

Table 8 and Figure 5 express the users' opinions regarding the overall reading material collection of the library. The majority of 59.65% of respondents opted for moderately

useful. 21.06% of respondents find the library collection highly useful. 15.78% of respondents opted for slightly useful, while very few, 3.51% of respondents, found library collection not useful for their perspective.

Table 9: Type of E-Resources Mostly Used by the Library Users [Multiple choice]

S. No.	Type of E-Resources	Yes	No	Mean	S.D.
1	E-Books	72 (63.15%)	42 (36.85%)	1.368	0.484
2	E-Journals	34 (29.82%)	80 (70.18%)	1.701	0.459
3	E-Databases	18 (15.78%)	96 (84.22%)	1.842	0.366
4	E-Theses	10 (8.77%)	104 (91.23%)	1.894	0.284
5	E-Scholarly Content	12 (10.52%)	102 (89.48%)	1.894	0.308
6	None of the above	28 (24.56%)	86 (75.44%)	1.754	0.432

Table 9 reveals the data about types of e-resources mostly used by the library users under study. The majority (63.15%) of users prefer accessing e-books, with a mean value of 1.368 and an SD value of 0.484. After e-books, e-journals are the second most accessible e-resources among the users, with a mean value of 1.701 and an SD value of 0.459. E-databases are the third most accessible e-resources type, with a mean value of 1.842 and an SD value of 0.366. At last, e-scholarly content and e-thesis are consulted by 10.52% and 8.77% of users, respectively, with mean values of 1.894

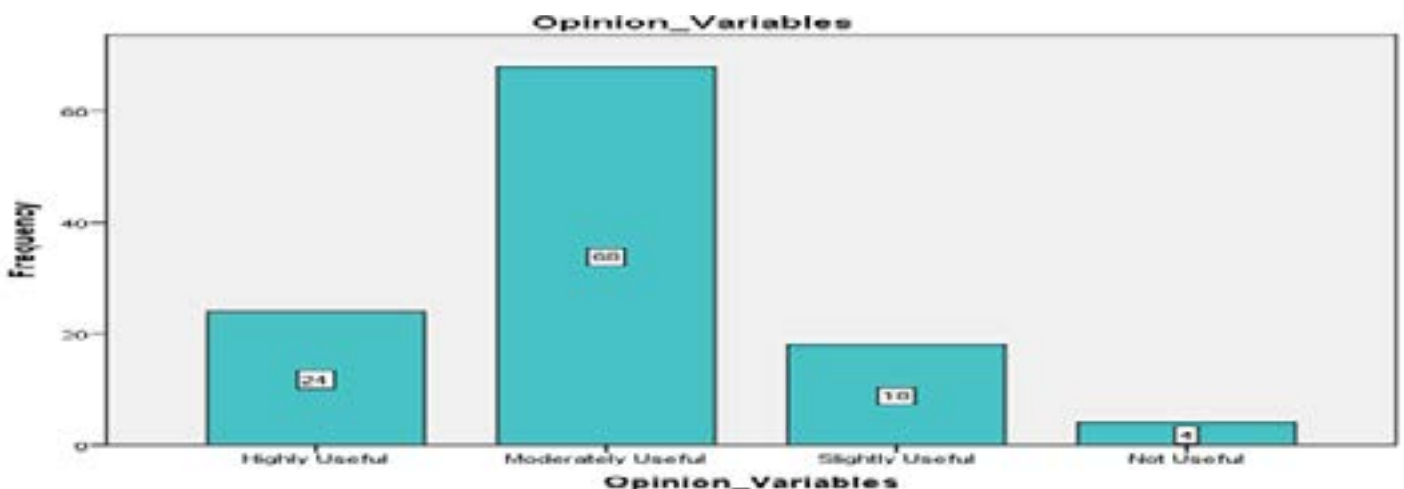


Figure 5: Users' Opinion Regarding Overall Collection of the Library

and 1.912, while SD values of 0.308 and 0.284, respectively. Although, 24.56% of respondents do not access any type of the above-mentioned e-resources in the library.

Table 10: User Satisfaction Regarding Digital & Electronic Collection of the Library

Sl. No.	Variables	No. of Respondents	Percentage (%)
1	Satisfied	56	49.12
2	Unsatisfied	44	38.60
3	No Idea	14	12.28
Total		114	100.00

Figure 6: Users' Satisfaction Regarding E-Collection of the Library

Table 10 and Figure 6 represent the user satisfaction among the users regarding digital and electronic collection of the library. According to the survey, 49.12% of the respondents were satisfied with the digital and electronic collection of the library. 38.60% of respondents were unsatisfied with the digital and electronic collection of the library, although 12.28% of respondents were no idea about this.

Table 11: Problems Encountered by Users in Accessing E-Resources [Multiple choice]

Sl. No.	Problem Faced by the Users	Yes	No	Mean	S.D.
1	Low Internet Connectivity	76 (66.66%)	38 (33.34%)	1.386	0.488
2	Less Number of Computers in the Library	46 (40.35%)	68 (59.65%)	1.596	0.492
3	Unaware of Available of E-Resources	48 (42.11%)	66 (57.89%)	1.578	0.495
4	Unorganised Information	14 (12.28%)	100 (87.72%)	1.596	0.329
5	Power Outage	18 (15.78%)	96 (84.22%)	1.842	0.366
6	No Problem	14 (12.28%)	100 (87.72%)	1.866	0.329

Table 11 reveals the major problems encountered by the users

in accessing e-resources of the library. It shows that the most common problem encountered by the most (66.66%) of the users in accessing electronic resources is the low Internet connectivity in the library, with the mean value of 1.386 and SD value of 0.488. Unawareness about available e-resources is the second most common problem among the users of the library i.e., 40.11% of users unaware about the available e-resources with a mean value of 1.578 and the highest SD value of 0.495. Third most common problem encountered by the users is less number of computer in the library to access e-resources or e-content i.e., 40.35% of users facing the same problem with mean value of 1.596 and SD value of 0.492. Power outage, Unorganised information were the minor problems among the users and opted by very few numbers of users i.e., 15.78% and 12.28% respectively; Both having mean value of 1.842 and 1.877 respectively and SD value of 0.3666 and 0.329 respectively. Only 12.28% of users have no any problem in accessing e-resources of the library, having a mean value of 1.866 and SD value of 0.329.

Table 12: Overall Users' Satisfaction with Existing ICT-based Library Services

Sl. No.	Satisfaction Levels	No. of Respondents	Percentage (%)
1	Fully Satisfied	5	4.38
2	Satisfied	38	33.34
3	Neutral	55	48.24
4	Not Satisfied	16	14.04
Total		114	100.00

Table 12 and Figure 7 express the overall users' satisfaction of users with existing ICT-based library services. Most (48.24%) of users were neutral with respect to satisfaction level with existing ICT-based library services. Only 33.34% of users were satisfied with the existing library services, and 14.04% of users were not satisfied with the respective services. Significantly, only 4.38% of users were fully satisfied with the existing ICT-based library services.

6. Major Findings of the Study

Some significant findings of the study are as follows:

- i. The majority of 63.16% of library users were enrolled in undergraduate courses of study. A vast percentage (84.22%) of users were under twenty-five years old. The majority (50.88%) of users, visit the library daily.
- ii. Self or group study, consulting print books, and borrow-return books were the top three reasons the users visit the library frequently.
- iii. The majority (54.38%) of users do not visit the library frequently or daily due to a shortage of time.
- iv. Most (40.35%) of the users spend an average of two hours in the library daily; after that, 31.58% of users spend an average of four hours in the library.
- v. RFID-based automated issue-return service is the most popular and availed ICT-based library service among 84.21% of users. In-house digital collection has the highest mean value of 1.929, and online library catalogue service has the highest SD value of 0.497.
- vi. Print reading materials or resources are still a more popular reading format among library users than electronic or web resources.
- vii. E-books are the most accessible e-resources among the (63.15%) users, with the lowest mean value of 1.368 and the highest SD value of 0.484. E-journals (29.82%) are the second most accessible e-resources.
- viii. Almost 80% of users found the library's overall collection useful and highly useful.
- ix. Only 49.12% of users in the library were satisfied with the digital and electronic collection of the library, while 38.60% were unsatisfied with the same services.
- x. Low Internet connectivity is the major problem among 66.66% of library users. Unorganised information has the highest mean value of 1.877, while unawareness of available e-resources has the highest SD value of 0.495.
- xi. Only 37.72% of users were satisfied and fully satisfied with the existing ICT-based library services.

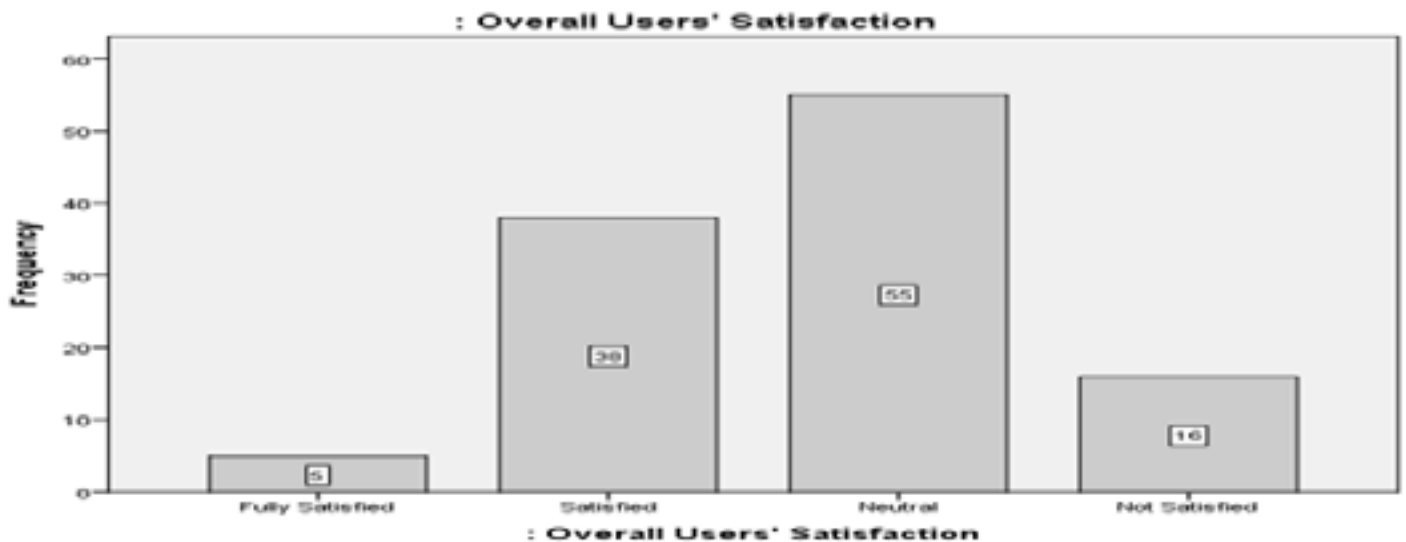


Figure 7: Overall Users' Satisfaction Regarding ICT-based Services

7. Conclusion and Suggestions

The study highlights the growing impact of ICT on library services, particularly at the Vivekanand Central Library. Key findings include the widespread use of RFID-based automated services and the popularity of print resources over digital formats. The study shows some issues, like low internet connectivity and unawareness of available resources, hinder optimal utilisation of available library resources. User satisfaction with ICT-based services is moderate, indicating room for improvement in addressing users' evolving needs. Based on the study's findings, it is suggested that the library should address or resolve low Internet connectivity issues and increase the number of computers to enhance access to

e-resources in the library. The library should also conduct regular workshops and training sessions to familiarise users with available e-resources and ICT-based services. Enrich the library's digital offerings, including e-books, journals, and databases, based on user demand.

References

Ankamah, S., Gyasi, K., & Amponsah, V. (2022). Use of electronic resources in research and learning in a health sciences library in Ghana: An analysis of awareness and perception of users. *Information Development*, 40(2). doi:<https://doi.org/10.1177/02666669221107378>

- Jindal, R., Khan, J., & Roy, P. (2020). Awareness of ICT enabled information services among patrons: A comparative study of Central University Libraries of Delhi and NCR. *International Journal of Research in Library Science (IJRLS)*, 6(1), 27-39. doi:10.26761/IJRLS.6.1.2020.1307
- Kona, R., Chagari, S., & Rudraksha, G. (2017). Use of library resources and services in selected deemed university libraries in Andhra Pradesh: A study. *Library Philosophy and Practice (e-journal)*, 1506. <http://digitalcommons.unl.edu/libphilprac/1506>
- Ogunbodede, K. F., Odewusi, O. O., Idubor, I., & Oniovosa, O. N. (2020). Evaluation of user's satisfaction of information resources and services in St. Albert the Great Major Seminary School Library, Ogun Sate, Nigeria. *International Journal of Research and Scientific Innovation (IJRSI)*, 7(2), 162-168. <https://rsisinternational.org/journals/ijrsi/digital-library/vol-ume-7-issue-2/162-168.pdf>
- Suman, A. K., Tanti, S., & Patel, M. (2023). Usage of web resources among the users of Atal Bihari Vajpayee Central Library of Mahatma Gandhi Central University: A survey. *Library Waves*, 9(2), 104-116. <https://librarywaves.com/index.php/lw/article/view/167>
- Talawar, A. B., & Naikar, S. (2024). Awareness and use of electronic resources by research scholars of Karnatak University, Dharwad: A study. *IP Indian Journal of Library Science and Information Technology*, 9(2), 111-118. doi:https://doi.org/10.18231/jjilsit.2024.018
- Tiemo, P. A., & Ateboh, B. A. (2016). Users' satisfaction with library information resources and services: A case study College of Health Sciences Library Niiger Delta University, Amassoma, Nigeria. *Journal of Education and Practice*, 7(16), 54-59. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1105267.pdf>