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ORIGINAL ARTICLE

Reviving Digital Access: The Impact of ICT Infrastructure on KDPL Usage and Public Library Satisfaction

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ABSTRACT

Background: The importance of public libraries in offering residents easily accessible information and online services has grown as a result of digital transformation. To expand technology-enabled library services and provide access to digital materials through public libraries, the Karnataka Digital Public Libraries (KDPL) program was launched. However, there remains a dearth of comprehensive data on its usage and user satisfaction, especially across Karnataka's many districts.

Goals: The research examines how public library patrons in the Bengaluru and Kalaburagi districts utilise KDPL and assesses their satisfaction with its resources and services. Additionally, it examines the relationship between user happiness and the frequency of KDPL use, as well as the quality of ICT infrastructure.

Methods: Users of public libraries in the chosen areas were given a structured questionnaire. Descriptive statistics and appropriate inferential methods were used to analyse the data. The internal consistency of the measurement items was evaluated using reliability analysis, and the suggested relationships among ICT infrastructure, KDPL use frequency, and user satisfaction were tested using correlation analysis.

Findings: The results show that KDPL provides information resources and services and offers public library patrons a crucial digital access mechanism. The research found a strong correlation between the frequency of KDPL usage and the quality

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of ICT infrastructure. Additionally, a strong correlation between the frequency of KDPL use and user happiness was found, suggesting that frequent use of digital library services is associated with more positive user opinions.

Future Implications: The results show that public libraries must improve their ICT infrastructure, digital materials, technical assistance, and user-focused services. To provide fair and sustainable access to digital information services across Karnataka, the KDPL program should be revived, extended, and regularly assessed. It has significant promise as a scalable digital public library model.

KEYWORDS

• Digital Access • ICT Infrastructure • KDPL • Public Library • User Satisfaction

INTRODUCTION

Public libraries play an important role in providing equitable access to information, education, reading materials, and lifelong learning opportunities for the general public. With the increasing integration of information and communication technologies, the role of public libraries has expanded beyond traditional print-based services to include digital resources and technology-enabled information services. Public libraries therefore need to provide appropriate physical infrastructure, ICT facilities, digital resources, and user-oriented services to meet the changing information needs of communities.

The Karnataka Digital Public Library (KDPL), also known as the Karnataka Sarvajanika Granthalaya, was introduced by the Department of Public Libraries, Government of Karnataka, as a major initiative to extend public library services into the digital environment. The KDPL portal was launched on 26 February 2020, shortly before the COVID-19 pandemic led to the closure of libraries and other educational institutions across the country. The initiative was developed as part of the modernisation of the public library system to improve access to digital information resources for the people of Karnataka.

The timing of its introduction proved particularly significant during the COVID-19 pandemic. When physical public libraries were closed during the lockdown, KDPL provided an alternative way to access books, journals, educational materials, competitive examination resources, videos, and other digital content from home. Contemporary reports indicated that registrations and usage increased rapidly during this period, with more than 3.7 lakh users registered by August 2020 and millions of e-books and videos accessed through the platform. Competitive examination materials were among the most frequently accessed resources during the pandemic, reflecting the importance of KDPL for students and job seekers when physical library access was restricted.

The development of KDPL was further strengthened by integrating digital services with public libraries across the state. The initiative included the upgrading of Central, City Central, Taluk, and Gram Panchayat libraries with digital facilities and online access. Research on the initiative reports that the platform subsequently provided a substantial collection of e-books, films, e-journals, simulation laboratories, and examination resources. The KDPL therefore represents an important transition from conventional public library services towards a technology-enabled and more accessible model of public information provision.

This is the first initiative in the nation to make a state-level effort to digitise and provide access to education on such a large scale. As of December 27, 2022, 3, 10, 79, 185 people have enrolled at the Karnataka Digital Public Library site and seen 22, 72, 899 e-contents. The initiative also received recognition for its contribution to the transformation of Karnataka's public library system. A Karnataka Economic Survey 2022-23 (Karnataka Planning, Programme Monitoring and Statistics Department, 2023) document records recognition by the World Book of Records, London, in 2022 for the initiative's contribution to digital library development and the modernisation of public libraries. Thus, KDPL emerged at a critical period and demonstrated particular relevance

during the pandemic by sustaining access to information when conventional library services were disrupted.

Against this background, the present study focuses on the utilisation of Karnataka Digital Public Library (KDPL) in Bengaluru and Kalaburagi districts, with particular emphasis on user satisfaction. It examines users' awareness, access, frequency of use, purposes of using KDPL, ICT infrastructure, utilisation of digital resources, satisfaction with public library and KDPL resources and services, and the factors that influence their library experience. The study also considers users' suggestions for improving public library and KDPL services, including digital literacy programmes, additional computers, infrastructure development, greater availability of digital resources, regional language content, and awareness programmes. Through these dimensions, the study seeks to provide an integrated understanding of KDPL utilisation and user satisfaction in Bengaluru and Kalaburagi districts.

LITERATURE REVIEW

Lachaiah and Hajdu Barat (2026) examined user perceptions, expectations, and satisfaction across District Central Libraries in Telangana. They found that users valued conventional library services while also expressing strong expectations for improved digital resources, digital facilities, and training programmes. Their study highlights the importance of evaluating traditional and digital services together when assessing the effectiveness of contemporary public libraries.

Asiri and Finlay (2025) investigated the digital competencies of public library professionals in England. Based on a questionnaire survey of 52 participants, the study found that although many staff members were confident in supporting users with digital technologies, they reported limitations in their knowledge of emerging technologies, technical troubleshooting, and programming skills. Staffing constraints and inadequate professional development were identified as important barriers. The findings suggest that the quality of digital public library services is closely linked to staff competencies and institutional support.

Campbell-Meier and Velasquez (2025) assessed the digital accessibility of 66 public library websites in New Zealand using an enhanced evaluation protocol incorporating the WAVE accessibility tool. Although the websites generally provided basic information, accessibility problems were identified, particularly in HTML structure and ARIA attributes. The study demonstrates that merely providing online services is insufficient; digital public libraries must also ensure accessibility and usability for diverse user groups.

Kattimani *et al*. (2024) specifically examined the Digital Public Library of Karnataka and assessed users' satisfaction and use of its digital content. Using primary survey data and quantitative analysis, the study reported that users were generally satisfied with KDPL. The study is particularly relevant to the present research because it directly establishes user satisfaction and perceived usefulness as important dimensions in evaluating KDPL services.

Holeyannavar and Latte (2023) provided an overview of Karnataka's Digital Public Library initiative, drawing on data from the KDPL website. Their study documented the extensive range of digital resources available through the platform and highlighted the transformation of Karnataka's public library system through digital services. The study provides an important institutional background for understanding KDPL's development and scale, but it is primarily an overview rather than a detailed user-satisfaction study.

1. Research Gap

The existing literature demonstrates increasing interest in digital transformation, accessibility, user satisfaction, and digital competencies in public libraries. However, limited empirical research has examined the utilisation of the Karnataka Digital Public Library (KDPL) from a comprehensive user perspective. Existing studies on KDPL have largely focused on describing the initiative, examining digital resources, or assessing general user satisfaction, with comparatively less attention to the relationship between ICT infrastructure and the frequency of KDPL use. There is also limited comparative evidence on users across different geographical settings within Karnataka, particularly the Bengaluru and Kalaburagi districts. Further,

the combined influence of access methods, devices, purposes of use, digital resource utilisation, ICT infrastructure, and satisfaction with KDPL resources and services has not been sufficiently examined. Therefore, the present study addresses this gap by providing an empirical assessment of KDPL utilisation and user satisfaction in Bengaluru and Kalaburagi districts, with particular emphasis on ICT infrastructure and frequency of use.

OBJECTIVE

- To assess the awareness, registration status, and frequency of use of the Karnataka Digital Public Library (KDPL) among users in Bengaluru and Kalaburagi districts.
- To analyse the purposes of KDPL use, preferred resources, devices used, and modes of access to the KDPL portal among users.
- To assess the availability and quality of ICT infrastructure in public libraries and examine its relationship with the frequency of KDPL use.

HYPOTHESIS

H_1: There is a significant relationship between the quality of ICT infrastructure available in public libraries and the frequency of KDPL use.

H_0: There is no significant relationship between the quality of ICT infrastructure available in public libraries and the frequency of KDPL use.

LIMITATIONS OF THE STUDY

The present study is subject to certain limitations that should be considered while interpreting its findings. The study is geographically restricted to public library users in the Bengaluru and Kalaburagi districts of Karnataka; therefore, the findings may not generalise to users in other districts of the state. The scope of the study is also limited to selected aspects of KDPL utilisation, including demographic characteristics, awareness, registration status, frequency of use, purposes of use, preferred resources, ICT infrastructure, devices used for accessing KDPL, and modes of accessing the KDPL portal. The study does not cover all possible dimensions of digital library utilisation. The findings are based on user responses to a structured questionnaire, and variations in respondents' understanding or recall may affect the accuracy of some responses. Since the study is cross-sectional, it reflects patterns of KDPL use during the data collection period and may not capture changes in usage over time. Differences in availability of devices, internet connectivity, and public library ICT facilities may also influence users' access to KDPL. These limitations should therefore be considered when interpreting and generalising the study's findings.

METHODOLOGY

The present study adopted a descriptive survey research design to examine the utilisation patterns of the Karnataka Digital Public Library (KDPL) among the general public in Bengaluru and Kalaburagi districts. The study focused on members of the general public who visited public libraries in the selected districts, with particular emphasis on KDPL users, as respondents who were aware of and had used KDPL were considered better positioned to provide meaningful information on its utilisation patterns. A structured questionnaire was used as the primary tool for data collection. The questionnaire covered demographic characteristics; awareness and registration with KDPL; frequency and purposes of use; preferred resources; ICT infrastructure available in public libraries; devices used to access KDPL; and modes of accessing the KDPL portal. These components were selected from the relevant sections of the study questionnaire.

A total of 120 questionnaires were distributed, of which 109 were completed, resulting in a response rate of 90.83%. The respondents were selected from public library visitors and the general public in Bengaluru and Kalaburagi. The collected data were organised, coded, and analysed using appropriate statistical techniques to examine the patterns of KDPL utilisation and the relationship between ICT infrastructure quality and frequency of KDPL use. The findings were interpreted in accordance with the study's objectives and hypothesis.

RESULTS

1. Demographic Profile of the Respondents

The demographic profile of the respondents provides an overview of their district, gender, age, geographical location, educational qualification, and occupational background.

Table 1: Demographic Profile of the Respondents

Demographic Variable	Frequency (N)	Percentage (%)
District		
Bangalore	73	67.0
Kalburgi	36	33.0
Gender		
Male	72	66.1
Female	37	33.9
Age		
Below 20	6	5.5
21–30	91	83.5
31–40	9	8.3
Above 51	3	2.8
Geographical Location		
Rural	70	64.2
Urban	30	27.5
Semi-urban	9	8.3
Education		
PUC	1	0.9
Diploma	3	2.8
UG	75	68.8
PG	27	24.8
9th Standard	3	2.8
Occupation		
Student	76	69.7
Government	9	8.3
Private	9	8.3
Self-employed	9	8.3
Unemployed	3	2.8
Not specified	3	2.8

The demographic profile indicates that 73 (67.0%) respondents were from Bangalore district, while 36 (33.0%) were from Kalburgi district. In terms of gender, 72 (66.1%) respondents were male, and 37 (33.9%) were female, showing a higher representation of male respondents.

Age-wise, the respondents were predominantly concentrated in the 21–30 years category, with 91 (83.5%) respondents. This was followed by 9 (8.3%) respondents aged 31–40 years, 6 (5.5%) below 20 years, and 3 (2.8%) above 51 years. Thus, the study population was largely composed of young adults.

Regarding geographical location, 70 (64.2%) respondents were from rural areas, 30 (27.5%) from urban areas, and 9 (8.3%) from semi-urban areas. The findings therefore show that rural respondents constituted the largest group in the study.

With respect to educational qualifications, 75 (68.8%) respondents had undergraduate qualifications and 27 (24.8%) had postgraduate qualifications. A small proportion consisted of diploma holders (3, 2.8%), respondents with 9th-standard education (3, 2.8%), and PUC qualification (1, 0.9%). The profile therefore indicates a predominantly higher-education-oriented group of respondents.

In terms of occupation, students formed the largest category with 76 (69.7%) respondents. Government employees, private-sector employees, and self-employed respondents each accounted for 9 (8.3%), while 3 (2.8%) were unemployed and 3 (2.8%) were recorded under code 0. Overall, the demographic profile is dominated by young undergraduate students, with substantial rural representation.

2. Sources of Awareness of KDPL

The respondents were asked to indicate the sources through which they learned about the Karnataka Digital Public Library (KDPL). The responses provide insight into the major channels driving KDPL awareness among users. The distribution across library staff, personal networks, social media, government campaigns, newspapers, educational institutions, and other sources is presented.

Table 2: Sources of Awareness of Karnataka Digital Public Library (KDPL)

Source	Frequency	Percentage
Library Staff	15	13.8
Friends / Family	42	38.5
Social media	8	7.3
Government Campaign	6	5.5
Newspaper	16	14.7
Educational Institute	10	9.2
Other	12	11.0
	109	**100.0**

The findings indicate that friends and family were the major source of awareness about KDPL, accounting for 42 (38.5%) of respondents. Newspapers were the second most important source, reported by 16 (14.7%), followed by library staff with 15 (13.8%). A further 12 (11.0%) respondents became aware of KDPL through other sources, while 10 (9.2%) learned about it through educational institutions. Social media contributed to awareness among 8 (7.3%) respondents, whereas government campaigns accounted for the lowest proportion, at 6 (5.5%). Overall, the findings show that interpersonal communication, particularly through friends and family, played a more prominent role in creating awareness of KDPL than formal government campaigns and social media.

3. Purpose of Using Karnataka Digital Public Library (KDPL)

The respondents were asked to indicate the purposes for which they use the Karnataka Digital Public Library (KDPL). Since this was a multiple-response question, respondents could select more than one purpose. Of the 109 respondents, 105 cases were valid, and 4 were missing. The responses therefore provide an understanding of the major purposes for which the users utilise KDPL.

Table 3: Purpose of Using Karnataka Digital Public Library (KDPL)

Purpose	Frequency	Percentage
Access E-Books	26	14.3
Access E-Journals	14	7.7
Access Competitive Exam Materials	72	39.6
Access Academic Resources	12	6.6
Digital Newspapers	52	28.6
Access Audiobooks	6	3.3

Note: *Multiple responses were permitted*

The findings show that access to competitive examination materials was the most common purpose for using KDPL, reported by 72 (68.6%) of the valid respondents. The next major purpose was accessing digital newspapers, reported by 52 respondents (49.5%). 26 (24.8%) respondents reported access to e-books, while 14 (13.3%) respondents reported access to e-journals. A smaller proportion used KDPL for academic resources, accounting for 12 (11.4%), whereas audiobooks were the least utilised resource, reported by 6 (5.7%) respondents. Overall, the results indicate that KDPL was used predominantly for competitive examination preparation and access to digital newspapers, while academic and audio-based resources were comparatively less preferred.

4. Preference for Print and Online Resources

The respondents were asked to indicate their preference for print or online resources, or both, when using public library and KDPL facilities. This information provides an understanding of the preferred format of information resources among the users.

Table 4: Preference for Print and Online Resources

Preference	Frequency	Percentage
Online Resources	33	30.3
Print Resources	31	28.4
Not Responded	6	5.5
Both	39	35.8
	109	**100.0**

The findings indicate that both print and online resources were the most preferred formats, with 39 (35.8%) respondents reporting them. This was followed by online resources, preferred by 33 (30.3%) respondents, while 31 (28.4%) preferred print resources. A small proportion of 6(5.5%) respondents did not respond. Overall, the results show that users demonstrated a slight preference for accessing both print and online resources, suggesting that respondents value the availability of resources in multiple formats rather than relying exclusively on either print or digital formats.

5. Availability and Quality of ICT Infrastructure Facilities in Public Libraries

The respondents were asked to rate the availability and quality of selected ICT infrastructure in public libraries on a five-point scale from Excellent to Very Poor. The facilities covered desktop computers, laptops for users, internet connectivity, Wi-Fi, digital library sections, OPAC, printing, photocopying, and audio-visual learning facilities. The responses provide an overall picture of the ICT infrastructure available to users in the selected public libraries.

Table 5: Availability and Quality of ICT Infrastructure Facilities in Public Libraries

Note: ***N*** *= Number of respondents*

ICT Infrastructure Facility	Very Poor		Poor		Average		Good		Excellent		No Response	
	N	%	N	%	N	%	N	%	N	%	N	%
Desktop Computers	2	1.8	3	2.8	20	18.3	47	43.1	18	16.5	19	17.4
Laptops for Users	4	3.7	2	1.8	21	19.3	35	32.1	12	11.0	35	32.1
Internet Connectivity	8	7.3	19	17.4	12	11.0	27	24.8	6	5.5	37	33.9
Wi-Fi Facility	16	14.7	22	20.2	9	8.3	21	19.3	6	5.5	35	32.1
Digital Library Section	4	3.7	7	6.4	18	16.5	31	28.4	8	7.3	41	37.6
OPAC	4	3.7	7	6.4	14	12.8	23	21.1	2	1.8	59	54.1
Printing Facility	8	7.3	19	17.4	12	11.0	19	17.4	4	3.7	47	43.1
Photocopying Facility	6	5.5	19	17.4	12	11.0	19	17.4	2	1.8	51	46.8
Audio-Visual Learning Facilities	12	11.0	4	3.7	4	3.7	10	9.2	2	1.8	77	70.6

The findings indicate considerable variation in the availability and quality of ICT infrastructure across the selected public libraries. Desktop computers received the most favourable assessment, with 47 (43.1%) respondents rating them as good and 18 (16.5%) as excellent. Laptops for users were rated good by 35 (32.1%) and excellent by 12 (11.0%) respondents, while 35 (32.1%) did not rate them.

The assessment of internet connectivity was relatively moderate, with 27 (24.8%) respondents rating it as good and 6 (5.5%) as excellent. At the same time, 19 (17.4%) rated it poor and 8 (7.3%) very poor. The Wi-Fi facility received a relatively weak assessment, with 22 (20.2%) respondents rating it poor and 16 (14.7%) very poor, compared with 21 (19.3%) who rated it good and 6 (5.5%) excellent.

The digital library section was rated good by 31 (28.4%) respondents and excellent by 8 (7.3%), while 7 (6.4%) rated it poor and 4 (3.7%) very poor. For OPAC, 23 (21.1%) respondents rated the facility as good, and only 2 (1.8%) rated it excellent. However, a substantial 59 (54.1%) respondents did not provide a rating for OPAC.

The printing facility was rated good by 19 (17.4%) and excellent by 4 (3.7%) respondents, whereas 19 (17.4%) rated it poor and 8 (7.3%) very poor. Similarly, photocopying facilities were rated good by 19 (17.4%) and excellent by 2 (1.8%), while 19 (17.4%) rated them poor and 6 (5.5%) very poor.

The audio-visual learning facilities recorded the highest proportion of non-responses, at 77 (70.6%). Among those who provided ratings, 10 (9.2%) considered the facility good and 2 (1.8%) excellent, while 12 (11.0%) rated it very poor. Overall, desktop computers emerged as the strongest ICT facility, whereas Wi-Fi, internet connectivity, OPAC, printing, photocopying, and audio-visual facilities showed greater limitations or substantial non-response.

6. Access Point for Using the Karnataka Digital Public Library (KDPL)

The respondents were asked to indicate the location or network they used to access the Karnataka Digital Public Library (KDPL) portal. The available access points included home internet, public library internet, educational institution networks, and community internet centres. Since the question permitted multiple responses, respondents could report more than one access point.

Table 6: Access Points Used to Access KDPL

Access Point	Number (N)	Percentage (%)
Home Internet	63	60.0
Public Library Internet	28	26.7
Educational Institution Network	10	9.5
Community Internet Centre	4	3.8
Total Response	**105**	**100.0**

Note: *Multiple* ***responses were permitted***

The findings show that home internet was the most commonly reported access point for KDPL, with 63 responses (60.0%). This was followed by public library internet, reported by

28 (26.7%) respondents. A smaller proportion accessed KDPL through an educational institution network, accounting for 10 (9.5%) responses. Community internet centres were the least-used access point, with only 4 (3.8%) responses. Overall, the findings indicate that KDPL was accessed predominantly through home internet, while institutional and community-based access points played a comparatively smaller role. This suggests that personal internet access was the principal means through which users connected to the KDPL portal.

7. Devices Used to Access the Karnataka Digital Public Library (KDPL)

The respondents were asked to indicate the devices they use to access the Karnataka Digital Public Library (KDPL). The options included library computers, smartphones, laptops, desktops, and tablets. Since the question allowed multiple responses, respondents could report more than one device. The distribution of responses is presented in the following Table.

Table 7: Devices Used to Access KDPL

Device	Number (N)	Percentage (%)
Library Computer	27	17.2
Smartphone	65	41.4
Laptop	31	19.7
Desktop	23	14.6
Tablet	11	7.0
Total	**157**	**100.0**

Note: *Multiple responses were permitted; therefore, the percentage of cases is 161.9%, while the response percentages total 100.0%.*

The findings indicate that smartphones were the most widely used devices for accessing KDPL, accounting for 65 (41.4%) of the total responses. Laptops were the second most commonly used device, reported in 31 responses (19.7%), followed by library computers with 27 responses (17.2%). Desktop computers accounted for 23 (14.6%) responses, while tablets were the least frequently used device, with 11 (7.0%) responses. Overall, the results indicate that KDPL access was predominantly through personal mobile and portable devices, particularly smartphones and laptops. At the same time, library computers and desktop computers were used to a lesser extent.

8. KDPL Registration Status

The respondents were asked whether they were registered users of the Karnataka Digital Public Library (KDPL). Registration status is an important indicator of users' formal engagement with the digital public library platform. The distribution of registered and unregistered users is presented.

Table 8: Registration Status of KDPL Users

Registration Status	Number (N)	Percentage (%)
Registered	75	68.8
Not Registered	34	31.2
	109	**100.0**

The findings indicate that a substantial majority of respondents were registered KDPL users, with 75 (68.8%) reporting they had registered on the platform. In contrast, 34 (31.2%) respondents were not registered users. The results show that registration was relatively high among the respondents, indicating a considerable level of formal engagement with KDPL. However, the presence of 31.2% unregistered respondents suggests that a notable proportion of users who access or are aware of KDPL have not completed registration.

9. Frequency of KDPL Use

The respondents were asked to indicate how frequently they use the Karnataka Digital Public Library (KDPL). The frequency categories included daily, weekly, monthly, and occasional use. This information helps to understand the regularity of users' engagement with KDPL and indicates the extent of its utilisation among the respondents.

Table 9. Frequency of KDPL Use

Frequency of Use	Number (N)	Percentage (%)
Daily	51	46.8
Weekly	8	7.3
Monthly	4	3.7
Occasionally	46	42.2
Total	**109**	**100.0**

The findings indicate that daily use was the most common pattern of KDPL utilisation, reported by 51 (46.8%) respondents. This was

closely followed by occasional use, reported by 46 respondents (42.2%). Only 8 (7.3%) respondents reported using KDPL weekly, while 4 (3.7%) used it monthly. Overall, the results show that KDPL utilisation was concentrated mainly among daily and occasional users, who together accounted for 97 (89.0%) of the respondents. The relatively small proportions of weekly and monthly users indicate that intermediate patterns of use were less common among the respondents.

10. Relationship Between ICT Infrastructure Quality and Frequency of KDPL Use

A high degree of internal consistency among the nine ICT infrastructure items was shown by the reliability analysis, which yielded a Cronbach's alpha score of.897. For the purpose of creating the ICT Quality Score, the nine-item scale was deemed to be sufficiently dependable. A Spearman's rank-order correlation was used to investigate the association between the frequency of KDPL use and the quality of the ICT infrastructure available in public libraries. Because the variables are based on frequency categories and ordinal ratings, Spearman's correlation was used.

Table 10: Relationship Between ICT Infrastructure Quality and Frequency of KDPL Use

Variables	N	Spearman's rho	p-value
ICT Quality Score and Frequency of KDPL Use	109	0.234*	0.014

Note: *Correlation is significant at the 0.05 level (2-tailed).*

The quality of ICT infrastructure in public libraries and the frequency of KDPL usage were positively correlated, as indicated by Spearman's rank-order correlation (rs(109) = .234, p = .014). Higher perceived quality of ICT infrastructure was associated with more frequent use of KDPL. At the 0.05 level, the outcome was statistically significant despite the weak connection. Consequently, the results indicate a substantial correlation between consumers' frequency of KDPL use and the quality of ICT infrastructure.

Spearman's rank-order correlation revealed a statistically significant positive relationship between the quality of ICT infrastructure available in public libraries and the frequency of KDPL use (rs = .234, p = .014). Since the p-value is less than the 0.05 significance level, the null hypothesis is rejected. Therefore, the alternative hypothesis is accepted: There is a significant relationship between the quality of ICT infrastructure available in public libraries and the frequency of KDPL use.

MAJOR FINDINGS AND DISCUSSION

The results show a strong correlation between KDPL use and the quality and accessibility of the technology environment in public libraries. The frequency of KDPL usage and the quality of ICT infrastructure are significantly and positively correlated (Spearman's r_s = .234, p = .014), suggesting that users who rate the accessibility of facilities more highly are likely to use KDPL more often. The idea that the use of digital libraries cannot be isolated from the infrastructure that supports it is supported by the statistical significance of the connection, notwithstanding its weakness. Similar research has shown that satisfaction may mediate the relationship between service quality and actual usage, and that system and service quality are significant drivers of digital library use (Iqbal *et al.*, 2022).

The infrastructure results also suggest that desktop computers were evaluated more favourably than Wi-Fi, internet access, OPAC, printing, photocopying, and audio-visual capabilities. This is especially important because KDPL was primarily accessible via cell phones and home internet, suggesting that users often rely on personal devices rather than digital resources available in libraries. In a similar vein, Hider et al. (2024) noted that rural public libraries struggle to keep their technological infrastructure up to date despite rising demand for IT services and digital literacy assistance.

Users favour resources with immediate educational and practical significance, as seen by the prevalence of digital newspapers and competitive test materials among KDPL users. Additionally, the large percentage of everyday users indicates that KDPL is no longer just a sporadic extra service for many consumers. Riady et al. (2023) found that satisfaction was a major predictor of digital library use and that service quality had a substantial impact on satisfaction, highlighting the importance of service quality in sustaining consistent engagement. The fact that both print and online materials are preferred suggests that digital services have complemented rather than replaced

conventional library resources. This reinforces public libraries' broader role as hybrid information settings that cater to a range of user needs. Investments in digitisation, IT integration, refurbishment, and library infrastructure are crucial elements of public library growth, according to recent Indian data (Kulkarni *et al*., 2024). Overall, the current research indicates that improving ICT infrastructure, internet connection, digital access points, and user-focused digital services will support longer-term KDPL adoption.

CONCLUSION

The present study examined the utilisation of the Karnataka Digital Public Library (KDPL) among public library users in Bengaluru and Kalaburagi districts, with particular attention to access patterns, purposes of use, ICT infrastructure, and frequency of utilisation. The findings indicate that KDPL has established a meaningful role in supporting users' access to digital information resources. A substantial proportion of respondents were registered users, while daily and occasional use together represented the dominant pattern of KDPL utilisation. Competitive examination materials and digital newspapers emerged as the most prominent uses, demonstrating the platform's practical and educational relevance.

The study also shows that users preferred a combination of print and online resources, indicating that digital services complement rather than completely replace traditional library resources. Smartphones and home internet were the major means of accessing KDPL, suggesting that personal digital devices and connectivity have become important components of contemporary public library use. At the same time, limitations were observed in several ICT facilities, particularly Wi-Fi, internet connectivity, OPAC, printing, photocopying, and audio-visual learning facilities. These limitations may restrict public libraries' ability to provide consistent technology-supported services.

Importantly, the study established a statistically significant positive relationship between ICT infrastructure quality and frequency of KDPL use (r_s = .234, p = .014). Although the relationship was weak, the finding confirms that better ICT infrastructure is associated with more frequent KDPL utilisation. Therefore, strengthening internet connectivity, Wi-Fi, digital facilities, and user-oriented technological support should remain important priorities for public libraries. Continued investment in digital infrastructure, awareness activities, and user support can further enhance KDPL utilisation and contribute to a more accessible and effective digital public library service in Karnataka.

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