A User-Centric Study on The Information Needs and Use Pattern of Library Resources and Services by Differently Abled Persons in NGOs of Karnataka, India

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Abstract

The empowerment, participation, and inclusion of persons with disabilities in society are all necessary elements that require access to accurate and relevant information. The present study examines user-based research on the needs and information consumption patterns of persons with disabilities in partnership with twenty-five NGOs across four districts in Karnataka. A total of 450 participants were sent the questionnaires, and 382 of them returned them, resulting in an excellent response rate of 84.89%. As can be observed in the analysis, young respondents are predominant, with the majority being males, and a significant number of respondents are in formal or vocational education. The results highlight the fact that, despite NGO libraries serving as practical learning and support centres, notable gaps remain in terms of infrastructural accessibility, the provision of adaptive technologies, digital skills, and overall user satisfaction.

Keywords
Persons with disabilities; NGO libraries; information needs; accessibility; Assistive technologies
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1. Introduction

Libraries are the door to knowledge, and they are essential tools of social development and empowerment. In the case of persons with disabilities, however, there are still physical, technological, and attitudinal barriers that mediate access to library resources and services. Educating, training and rehabilitating people with disabilities has always been the primary activity of NGOs in Karnataka. Some of them have libraries or learning centres, which are designed to meet the information needs of their beneficiaries. Although such attempts have been made, scant research has been conducted to determine how these users engage with the provided library services, the information they find in search, how technologies enhance or impede their access to resource bases, and the infrastructural variables that inform their usability.

Knowledge in these dimensions is crucial towards designing sensitive and inclusive library systems. The current paper adopts a user-centric approach in examining the information requirements and utilisation behaviour of differently abled Persons among twenty-five NGOs in Karnataka. The study will provide a comprehensive overview of users with varying abilities in the library, examining demographic features, disability patterns, resource utilisation behaviour, ICT proficiency, facility accessibility, and their level of satisfaction.

2. Review of Literature

The existing literature focuses on the dynamic nature of information requirements for persons with disabilities in the context of their educational roles, occupational requirements, and personal aspirations. Research practices in institutions and libraries of higher education have shown that differently-abled users often face difficulties in acquiring information due to insufficient assistive technologies, unfriendly digital libraries and resources, as well as a lack of staff training. Studies by ALA and IFLA highlight the importance of inclusive infrastructure, digital accessibility criteria, and staff training. When it comes to Indian studies specifically, it has been highlighted that those libraries should be more inclined to include collections of Braille, screen readers, ramps, tactile signs, and working digital substitutes. Although a significant number of studies have analysed university libraries, few studies have examined NGO-based libraries that operate heavily

with communities of differently abled Persons. This research gap is being addressed in the present study.

3. Statement of the Problem

Despite the considerable welfare that NGOs in Karnataka provide to persons with disabilities, empirically very little is known regarding the actual utilisation of library resources by their beneficiaries, the obstacles they face, the fulfilment or non-fulfilment of their information needs, and the impacts of infrastructure and technology on their access and satisfaction. The absence of such evidence results in the disjointed nature of interventions and the general nature of policy frameworks, instead of policies designed to fit individual users. This gap is filled by the current research, which conducted a systematic study of the user experience of NGO library materials and services.

4. Objectives of the Study

1. The investigation will focus on determining and examining the information requirements of Persons with disabilities.
2. To explore their library use trends, to investigate the accessibility and structural sufficiency of the NGO libraries,
3. To determine ICT competence and use of assistive technologies, and
4. To provide recommendations as per user satisfaction and constraints that are detected.

5. Scope of the Study

The study aims to investigate the data needs and data consumption patterns of people with disabilities among the sampled NGOs in Karnataka. It includes twenty-five NGOs and features a sample of 382 representatives from various disability categories. It is reduced to libraries and information services provided by NGOs, which are evaluated based on problems such as access, ICT applications, assistive technologies, resource availability, and user satisfaction. The study will examine how people with disabilities can and do access library resources in the NGO scenario.

6. Limitations of the Study

The research will only consider NGOs in Karnataka and exclude government and academic libraries. The results rely on self-reported data, which could be subject to individual bias. The disparity in amenities, personnel assistance and technology among NGOs is not entirely investigated. The sample size is limited to 382 respondents, and the research does not examine long-term changes in information behaviour.

7. Methodology

The research employs a descriptive survey design and utilises a mixed-methods approach that incorporates both quantitative and qualitative methods. The sample was taken from twenty-five NGOs representing four Karnataka administrative divisions, which have a wide variety of disability service organisations. Data were collected using a structured questionnaire, supplemented by interviews and observations. A total of three hundred and eighty-two responses were valid out of the four hundred and fifty questionnaires that were sent out. Data analysis was conducted based on the descriptive statistics, where necessary, cross-tabulation, and interpretation from the user perspective.

8. Data Analysis and Interpretation

Table 1: Questionnaires distributed and responses received

Administration divisions (Karnataka)	**NGOs selected**	**Questionnaires distributed**	**Respondents (Differently abled persons)**	**Response rate (%)**	**Administration divisions (Karnataka)**
04	25	450	382	84.88	04

The research encompassed four administrative divisions of Karnataka, out of which twenty-five NGOs were identified. Four hundred and fifty questionnaires were administered to persons with disabilities, out of which 382 were returned to the researcher. This suggests that most respondents were optimistic about the survey, implying that cooperation and a desire to share information are reasonable. Overall, the response rate was 84.88%, indicating high participation, and thus the data used are reliable and well-representative of the target population.

Inference:
This significant response rate validates the fact that the differently abled individuals in the sampled

NGOs were not only active but also had a high interest in the study. As such, one could rely on the data in the future.

Table 2 Gender wise respondents

Gender	Respondents (count)	Percentage (%)
Male	253	66.23
Female	129	33.77
Total	**382**	**100.00**

As indicated in Table 2, of the 382 respondents, 253 were male, constituting 66.23% of the sample, while 129 were female, representing 33.77% of the sample. This implies that male respondents were involved in the study in greater proportions than their female counterparts, indicating a significant gender disparity in the representation of differently abled persons among the identified NGOs.

Inference: As indicated in Table 2, there was higher participation of males in the study than that of females, thus creating an imbalance in the gender representation among the respondents.

Table 3 Age wise respondents

Age group	Respondents	Percentage (%)
Below 18 years	138	36.13
19–25	123	32.20
26–30	61	15.97
31–40	32	8.38
41–50	17	4.45
50 & above	11	2.88
Total	**382**	**100.00**

Table 3 indicates that respondents aged below 18 years have the highest number, at 36.13 per cent, and the second highest number is 32.20 per cent. Participation is slowly declining in the older age groups, with rates of 15.97 in the 26-30 age group, 8.38 in the 31-40 age group, 4.45 in the 41-50 age group, and 2.88 in the above-50 age group. This implies that the aged individuals were underrepresented compared to the younger, differently abled people in the study.

Inference:

According to Table 3, younger respondents are primarily represented in the study, with participation decreasing with age.

Table 4: Academic status of Respondents

Academic status	Respondents	Percentage (%)
Graduate student	112	29.32
Diploma student	76	19.90
PUC	68	17.80
SSLC	63	16.49
Post-graduate student	33	8.64
Diploma nursing	17	4.45
Teaching faculty	13	3.40
Total	**382**	**100.00**

Table 4 indicates that the highest population of respondents is graduate students, constituting 29.32%, followed by diploma students, constituting 19.90%, and then PUC students, constituting 17.80%. The percentage of SSLC holders is 16.49%, and postgraduate students comprise 8.64%. Smaller groups include diploma students of nursing at 4.45 per cent and teaching faculty at 3.40 per cent. This implies that the majority of respondents have followed basic to high-level academic courses, with the most significant proportion being graduate and diploma courses.

Inference: Table 4 indicates that the research primarily reflects the responses of individuals with graduate and diploma-level academic backgrounds, with a higher representation of mid-to-higher educational qualifications.

Table-5. Classification of disabilities among NGOs Library Users

Types of Disabilities	Respondents	%
Hearing Impairment	71	18.59
Locomotor Disability	69	18.06
Low-Vision	47	12.30
Specific Learning Disabilities	32	8.38
Dwarfism	10	2.62
Speech and Language disability	31	8.12
Cerebral Palsy	15	3.93
Multiple Sclerosis	15	3.93

Blindness	40	10.47
Leprosy Cured Persons	6	1.57
Hemophilia	7	1.83
Acid Attack victims	4	1.05
Muscular Dystrophy	4	1.05
Intellectual Disability	4	1.05
Sickle cell disease	3	0.79
Parkinson's disease	2	0.52
Autism Spectrum Disorder	2	0.52
Thalassemia	4	1.05
Multiple disabilities (deaf) Blindness	16	4.19
Chronic neurological conditions	0	0.00
Mental illness	0	0.00
Total	382	100.00

Table 5 indicates that hearing impairment is the most prevalent disability among the respondents, with 18.59 per cent, closely followed by locomotor disability with 18.06 per cent. Low vision accounts for 12.30 per cent, and blindness contributes 10.47 per cent. Specific learning disability constitutes 8.38 per cent, and speech and language disability constitute 8.12 per cent. Cerebral palsy and multiple sclerosis are also found with smaller proportions of 3.93 and 3.93 per cent, respectively, and various rare conditions are also found, like haemophilia, thalassemia, intellectual disability, muscular dystrophy, and the victims of acid attacks, totalling 1.05-1.83 per cent. The 4.19 per cent is comprised of multiple disabilities, especially deaf-blindness. It was not mentioned that there were any respondents with chronic neurological conditions or a mental illness. All in all, the table indicates that the NGO library users have a very diverse range of disabilities, with sensory and mobility-related disabilities being dominant.

Inference: According to Table 5, the respondent population is broadly spread in terms of the types of disability, with the most significant number of people having hearing impairment, locomotor disability, low vision, and blindness, meaning that people with sensory and mobility problems mostly use NGOs.

Table 6: Frequency of Visit to Library and Information Centres

Frequency	Respondents	%
Daily	154	40.31
Once a week	76	19.90
Once a month	28	7.33
When I need information	83	21.73
On holidays	41	10.73
Never	0	0.00
Total	382	100.00

Table 6 indicates that 40.31% of respondents visit the library every day, indicating that they use library services regularly. The other 21.73 per cent visit only when they require information, and it is a need-based usage trend. The 19.90 per cent category comprises visitors who come in weekly, and the 10.73 per cent visit category consists of those who visit mostly during holidays. The 7.33 per cent visit category is for those who visit once a month. None of the respondents indicated that they had never been to the library. On balance, the majority of respondents are in constant and regular communication with library and information centres.

Inference: Table 6 hypothesises that the usage of library services among differently abled users is highly dependent on the type of library services, with daily and need-based visits being the most commonly used options.

Table 7. Purpose of visiting the NGOs' Library and Information Centre

Purpose of the visit to the NGO library and information centre	**Respondents**	**%**
To read books	275	71.99
To read newspapers	113	29.58
To read magazines and periodicals	95	24.87
To borrow/return the books	347	90.84
To browse reference sources/materials	231	60.47
To seek audio-visual materials / CDs	103	26.96
To access Internet/e-resources	285	74.61
To ask for information from the library staff	132	34.55
To prepare for competitive exams	143	37.43
To learn about the various PWD schemes from the state and central governments.	289	75.65

As shown in Table 7, the majority of respondents (90.84%) reported visiting the NGO library to borrow or return books. A high percentage also come to find out the government schemes of people with disabilities, as 75.65 per cent and 74.61 per cent come to access the internet and e-resources. Another significant reason, at 71.99 per cent, is reading books, and the second reason, at 60.47 per cent, is browsing reference materials. Smaller but essential activities include studying (37.43%), requesting help from library employees (34.55%), reading (29.58%), watching and listening to audio-visual sources (26.96%), and reading magazines and periodicals (24.87%). These trends suggest that NGO libraries can fulfil various needs, such as reading, digital access, academic support, and information about the government programmes.

Inference: Table 7 indicates that users primarily turn to NGO libraries to borrow books, access digital materials, and obtain information about PWD schemes, demonstrating the libraries as a source of learning and support for persons with disabilities.

Table 8: Information needs and how often you need them

Types of Information	Always	%	Often	%	Some Times	%	Rarely	%	Never	%	Total
Educational	382	100.00	0	0.00	0	0.00	0	0.00	0	0.00	382
Employment-related	229	59.95	142	37.17	0	0.00	11	2.88	0	0.00	382
News/Current affairs	127	33.25	128	33.51	96	25.13	31	8.12	0	0.00	382
Health/Impairment-related	263	68.85	79	20.68	40	10.47	0	0.00	0	0.00	382
Sports and recreation	69	18.06	131	34.29	125	32.72	57	14.92	0	0.00	382
Transport/ Travel	74	19.37	139	36.39	96	25.13	73	19.11	0	0.00	382
Fiction books/relaxation	62	16.23	82	21.47	179	46.86	59	15.45	0	0.00	382
Government schemes related	295	77.23	61	15.97	26	6.81	0	0.00	0	0.00	382
Politics	59	15.45	79	20.68	132	34.55	61	15.97	51	13.35	382

Table 8 reveals that educational information is required for all respondents in a permanent state, which means it is the most necessary category for differently abled users. Information related to employment is also highly demanded, as 59.95 per cent always require it and 37.17 per cent regularly require it. The mixed trend is characteristic of news and current affairs, where one in three requires it constantly or frequently, and one in four requires it occasionally. Another category with high demand is health and impairment-related information, and 68.85 per cent of them require it all the time, while 20.68 per cent require it frequently. The most significant need is access to government scheme information, which is required by 77.23 per cent of the differently abled community, which is a notable figure. Political information, in turn, is less demanded, as most of them require it occasionally, infrequently or never.

Inference: Table 8 suggests that information on education, employment, health-related schemes, and government schemes is the most critical need of differently abled users, whereas information on recreation and politics is less sought.

Table 9. Opinion on the Availability of Software among Users

Opinions	Respondents	%
Extremely Satisfied	16	4.19
Satisfied	39	10.21
Uncertain	19	4.97
Not Satisfied	187	48.95
Not at all	121	31.68
Total	**382**	100.00

Table 9 indicates that a very low percentage of respondents were even satisfied with the availability of software, with 4.19 being the most extreme level of satisfaction and 10.21 being the next highest level of satisfaction. The number of undecided individuals is 4.97%. Nevertheless, most of them are dissatisfied; 48.95 per cent express dissatisfaction, and 31.68 per

cent express dissatisfaction. This implies that the majority of differently abled users believe that the software in the libraries of non-governmental organisations is not worth its purpose.

Inference: According to Table 9, the availability of software is considerably dissatisfying among the users, implying a significant shortcoming of superior and more accessible digital tools in NGO libraries.

Table 10. NGO libraries are conducting the following programs to make use of library products and services

Programs	Available	%	Not available	%	Total
Library Book Exhibition	132	34.55	250	65.45	382
Display of New Arrivals	279	73.04	103	26.96	382
User Education /Orientation	295	77.23	87	22.77	382
Library Extension activities	204	53.40	178	46.60	382
Audio / Video Display	189	49.48	193	50.52	382
Computer Literacy	295	77.23	87	22.77	382
Media Literacy	307	80.37	75	19.63	382
Internet Literacy	295	77.23	87	22.77	382
Information Literacy	253	66.23	129	33.77	382

Table 10 demonstrates that NGO libraries actively carry out several programmes, most of which focus on media literacy, the most commonly available (80.37 per cent), followed by user education, computer literacy, and internet literacy, which are available to 77.23 per cent of the respondents. Most information literacy is also provided, with 66.23% indicating its provision. The exhibition of newcomers is present in 73.04 per cent of the libraries, which makes reasonable attempts to keep the users informed. The moderated availability is 53.40% and 49.48% for library extension activities and audio-video displays, respectively. Nevertheless, book exhibitions are the least purchased, and only 34.55 per cent indicate access to the exhibitions, which means that several NGOs do not promote their purchases.

Inference: Table 10 indicates that NGO libraries pay much attention to digital and literacy-related programmes, whereas the standard forms of promotion, such as book exhibitions, are at minimal levels.

Table 11. Face the barriers and challenges faced by persons with disabilities when accessing the institution/library

Barriers and challenges	Respondents				
	Yes	%	No	%	Total
No Wheelchair ramp with a push button for electronic doors	244	63.87	138	36.13	382
No elevators, stairs with lower tread rises	259	67.80	123	32.20	382
Not wide enough aisles between bookshelves for wheelchairs	92	24.08	290	75.92	382
Wider doorways/Automatic doorways	198	51.83	184	48.17	382
No On-site disabled parking with an international symbol for disabled	73	19.11	309	80.89	382
There is no use of signage for locating the information resources	109	28.53	273	71.47	382
There are no individual orientation sessions for disabled users	153	40.05	229	59.95	382
No large Trackballs (mice) for people with hand difficulties	225	58.90	157	41.10	382
There is no facility for special adjustments to computers for use only by locomotor-impaired users	0	0.00	382	100.00	382
No self-service circulation stations	279	73.04	103	26.96	382
Outdated information resources	174	45.55	208	54.45	382
Conservation and preservation problems	45	11.78	337	88.22	382
Inadequately skilled library staff	221	57.85	161	42.15	382

According to Table 11, numerous individuals with disabilities encounter significant barriers when using the services provided by institutions and libraries. Most respondents complain that they have no wheelchair ramps with electronic push-button doors (63.87 per cent) and no elevators or accessible stairways (67.80 per cent), which makes it very difficult to move around. Others above half add poor doorways or automatic doors (51.83 per cent) and a lack of large trackballs for use by people with difficulty in their hands (58.90 per cent). A large percentage, 73.04 per cent, of it states that there are no self-service circulation stations. Another problem reported by 57.85 per cent of the respondents is the inadequately skilled library staff. Others are less prevalent, such as narrow aisles (24.08%), no signage (28.53%), and the absence of on-site disabled parking (19.11%). It is worth noting that all respondents report that locomotor-impaired users do not have any specially adjusted computers. Problems connected with the use of outdated resources and individual orientation are also fairly reported. Conservation and preservation issues are the least significant challenge, affecting only 11.78 per cent of respondents.

Inference: The proposed solution suggests that the key challenges affecting differently abled users are physical access barriers, the absence of adaptive technologies, and the lack of staff skills. Significant improvements to accessibility and inclusive infrastructure in NGO libraries are therefore necessary (Table 11).

9. Results and Discussion

The research confirms that individuals with disabilities linked to NGOs in Karnataka possess varied and high-level information demands in education, employment, healthcare, rehabilitation, and daily living competencies. The analysis has found that the type of disability, accessibility attributes, technological accessibility, and staff responsiveness affect their library utilisation patterns. Despite the critical and supportive role of NGO libraries in the learning ecosystem of users, significant gaps exist in areas such as infrastructure and assistive technology. The skills of ICT are not standardised, and most users are not well-trained on how to utilise digital platforms to their fullest potential. The level of satisfaction is average, indicating that a systematic improvement is necessary.

10. Suggestions and recommendations

The results suggest that NGO libraries should adopt a more inclusive model of infrastructure, which is facilitated by physical accessibility features such as ramps, tactile pathways, and adaptive furniture. The accessibility and support of assistive technologies, such as screen readers, Braille materials, magnifying aids, and available digital formats, should be given priority. ICT skills and ICT training programmes should be conducted regularly, and digital literacy and the use of assistive software should be involved. Employees need to be sensitised and trained practically to accommodate visitors with disability. The development of partnerships between NGOs, public libraries, and universities can be used to distribute resources, build capacity, and normalise best practices. At the policy level, institutional compliance with national accessibility guidelines should be promoted.

11. Conclusion

The research concludes that while NGO libraries in Karnataka play a vital role in supporting persons with disabilities, their current level of infrastructural readiness, scientific implementation, and service responsiveness remains insufficient to adequately meet the diverse needs of users. By embracing a user-centric approach that prioritises accessibility, scientific empowerment, and trained staff support, NGOs can significantly enhance the quality and reach of their library services and facilities. Strengthening these systems will contribute to further equitable access to information and increased participation for people with disabilities.

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