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Information Needs of Persons with Visual Impairments: A Socioeconomic Analysis

Sukchand Hazra[1], Sukumar Mondal[2]

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ABSTRACT

This study investigates the information needs of persons with visual impairments and examines the influence of socioeconomic factors such as age, gender, income, habitation, occupation, and educational status. A survey method was employed, and data were collected from 100 visually impaired respondents through structured questionnaires and interviews. The findings reveal significant variations in information needs across different socioeconomic groups. Educational information was the primary need among younger respondents, financial information among working-age adults, health information among females and illiterate respondents, and religious information among older respondents. The study contributes to a better understanding of information behaviour among visually impaired persons and provides implications for libraries, policymakers, and information service providers in developing inclusive information services.

KEYWORDS

• Inclusive Information Systems • Information Needs • Persons with Disabilities • Socioeconomic Factors • Visual Impairment

INTRODUCTION

Visual impairments, also known as visual disabilities or blindness, refer to a condition where an individual has a significant loss of vision that cannot be fully corrected by glasses or contact lenses. Visual impairments exist along a spectrum, ranging from mild to severe visual disability and total blindness. It can be caused by various factors, including congenital conditions, diseases, injuries, or age-related degeneration. Visual impairment can impact various aspects of life, including education, employment, mobility, and social participation. Individuals with visual impairments often use alternative methods to access information,

AUTHOR'S AFFILIATION:

[1]Librarian, Ramakrishna Mission Residential College (Autonomous), Narendrapur, West Bengal, India.

[2]Librarian, Sundarban Hazi Desarat College, Pathankhali, West Bengal, India.

CORRESPONDING AUTHOR:

Sukumar Mondal, Librarian, Sundarban Hazi Desarat College, Pathankhali, West Bengal, India.

E-mail: sukumarmondal67@gmail.com

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such as Braille, screen readers, or assistive technologies. Particularly in this chapter, it is made to show the current status of their information needs. The objectives of the study are to find out the information needs of persons with visual impairments. For this purpose, individuals with visual impairments, divided into different socioeconomic parameters, viz., age, gender, income, habitation, occupation, and education, were asked to provide their first preference of their information needs.

Objectives

The demand for information never goes away. Man will need information to survive for as long as he is there in the universe. However, based on the subjects to which they belong, various groups or communities of users have varying information needs. Users of persons with visual impairment are the sole focus of this study. The objectives of the study are as follows:

- To find out the information needs of visually impaired people by different age categories.
- To assess the information needs of these communities as per their gender
- To find out the information needs of visually impaired people by different income levels.
- To investigate the information needs of visually impaired people by different habitation groups.
- To find out the information needs of visually impaired people by different occupational categories.
- To examine the information needs of visually impaired people by different educational status.

LITERATURE REVIEW

Information needs and information-seeking behavior have long been recognized as central concepts in Library and Information Science. Early scholars such as Dervin (1976), Wilson (1981, 2000), and Kuhlthau (2004) established theoretical foundations for understanding how individuals recognize information needs and seek information to bridge knowledge gaps. Wilson (2000) emphasized that information needs are shaped by personal, social, and environmental contexts, while Kuhlthau (2004) highlighted the cognitive and affective dimensions of information seeking.

In the context of persons with visual impairments, access to information remains a critical challenge despite rapid technological advancements. Beverley, Bath, and Barber (2007) examined the information behavior of visually impaired individuals seeking health and social care information and found that accessibility barriers significantly influenced information-seeking practices. Similarly, Bamidele (2018) stressed the importance of assistive technologies and collaborative efforts among policymakers, educators, librarians, and information professionals to ensure equitable access to information for visually impaired users.

Recent studies have highlighted the growing role of digital technologies and assistive tools in addressing information access barriers. Priscah, Shem, and Jane (2021) investigated information-seeking behavior among students with visual impairments in Kenya and reported that accessibility of digital resources and library services significantly influenced information access. Furthermore, Liang et al. (2022) found that awareness and availability of assistive technologies substantially affect visually impaired persons' ability to access information and participate effectively in educational and social activities.

The increasing digitalization of information services has generated new opportunities as well as challenges for visually impaired users. Valipoor and de Antonio (2022) observed that advances in computer vision, artificial intelligence, and assistive technologies have improved navigation, object recognition, and information retrieval for visually impaired individuals. However, technological accessibility remains uneven across platforms and services.

Recent systematic reviews further indicate that accessibility remains a major concern in digital environments. Kerdar, Bächler, and Kirchhoff (2024) found that although digital technologies have transformed communication and information access, many systems continue to present barriers for persons with visual impairments due to inadequate accessibility design. Likewise, Xie et al. (2024) reported that visually impaired users frequently encounter difficulties while searching and accessing information through digital libraries and mobile platforms, often requiring additional support mechanisms.

The emergence of mobile technologies and intelligent assistive systems has also reshaped information behavior among visually impaired users. Recent research has demonstrated that mobile devices, screen readers, and AI-enabled applications facilitate information access, communication, and independent living. Studies have shown that users develop different patterns of information behavior depending on their technological skills, accessibility conditions, and socioeconomic circumstances.

Despite the growing body of literature on accessibility and assistive technologies, limited attention has been paid to how socioeconomic factors such as age, gender, income, habitation, occupation, and educational status influence the information needs of persons with visual impairments, particularly in the Indian context. Most existing studies focus on technological accessibility, information-seeking behavior, or assistive technologies, while empirical investigations of socioeconomic variations in information needs remain scarce. Therefore, the present study seeks to address this gap by examining the information needs of persons with visual impairments across different socioeconomic groups and exploring the variations that exist among them.

METHODOLOGY

The present study employed a quantitative survey method to investigate the analysis of socioeconomic variations on the information needs of persons with visual impairments. The study was conducted among visually impaired individuals residing in Kolkata and its adjoining districts, namely South 24 Parganas, North 24 Parganas, Howrah, and East Midnapore in West Bengal, India. A stratified random sampling technique was adopted to ensure adequate representation of respondents from different socioeconomic backgrounds, including age, gender, income, habitation, occupation, and educational status. A total of 100 respondents with visual impairments were selected for the study. Data were collected through a structured questionnaire supplemented by personal interviews wherever necessary to facilitate effective participation and accurate responses. The questionnaire was developed based on an extensive review of relevant literature and was pre-tested to ensure its clarity, relevance, and reliability. Prior informed consent was obtained from all participants, and confidentiality of the collected information was strictly maintained throughout the research process. The collected data were coded, tabulated, and analysed using descriptive statistical techniques, particularly frequencies and percentages, to identify variations in information needs across different socioeconomic groups. The findings were subsequently presented through tables and graphical representations to facilitate interpretation and comparison of the results.

ANALYSIS AND DISCUSSIONS

The findings obtained from the analysis of collected data are as follows:

1. Information Needs of Persons with Visual Impairments by Different Socioeconomic Factors

Table 1: makes an attempt to show the information needs of persons with visual impairments bydifferent socioeconomic factors viz. age, gender, income, habitation, occupation, educational status etc.

Table 1: Information Needs of Persons with Visual Impairment by Different Socioeconomic Factors

Information Need	Age									
	Up to 15 Years		16-30 Years		31-45 Years		46-60 Years		Above 60 Years	
	N		N		N		N		N	
Political	0	0.00	4	13.79	3	10.71	1	6.25	0	0.00
Financial	0	0.00	6	20.69	14	50.00	3	18.75	4	25.00
Educational	11	100	7	24.14	0	0.00	1	6.25	0	0.00
Health	0	0.00	6	20.69	4	14.29	6	37.50	4	25.00
Recreational	0	0.00	3	10.34	1	3.57	2	12.50	0	0.00
Sports	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religious information	0	0.00	3	10.34	6	21.43	3	18.75	8	50.00
Total	**11**	**100**	**29**	**100**	**28**	**100**	**16**	**100**	**16**	**100**

Information Need	Gender			
	Male		Female	
	N		N	
Political	7	10.45	1	3.03
Financial	18	26.87	9	27.27
Educational	16	23.88	3	9.09
Health	10	14.93	10	30.30
Recreational	3	4.48	3	9.09
Sports	0	0.00	0	0.00
Religious information	13	19.40	7	21.21
Total	**67**	**100**	**33**	**100**

Information Need	Income					
	Low		Medium		High	
	N	%	N	%	N	%
Political	3	3.95	3	21.43	5	50.00
Financial	23	30.26	1	7.14	0	0.00
Educational	14	18.42	3	21.43	2	20.00
Health	20	26.32	0	0.00	0	0.00
Recreational	2	2.63	1	7.14	3	30.00
Sports	0	0.00	0	0.00	0	0.00
Religious information	14	18.42	6	42.86	0	0.00
Total	**76**	**100**	**14**	**100**	**10**	**100**

Information Need	Habitation					
	Rural		Semi-Urban		Urban	
	N	%	N	%	N	%
Political	4	6.78	2	7.69	2	13.33
Financial	18	30.51	3	11.54	6	40.00
Educational	9	15.25	8	30.77	2	13.33
Health	17	28.81	0	0.00	3	20.00
Recreational	1	1.69	4	15.38	1	6.67
Sports	0	0.00	0	0.00	0	0.00
Religious information	10	16.95	9	34.62	1	6.67
Total	**59**	**100**	**26**	**100**	**15**	**100**

Information Need	Occupation					
	Employed		Self-employed		Unemployed	
	N		N		N	
Political	5	50.00	0	0.00	3	4.17
Financial	0	0.00	7	38.89	20	27.78
Educational	1	10.00	1	5.56	17	23.61
Health	0	0.00	3	16.67	17	23.61
Recreational	1	10.00	4	22.22	1	1.39
Sports	0	0.00	0	0.00	0	0.00
Religious information	3	30.00	3	16.67	14	19.44
Total	10	100	18	100	72	100

Information Need	Educational Status									
	Illiterate		Primary		Secondary		Higher Secondary		Graduate	
	N	%	N	%	N	%	N	%	N	%
Political	0	0.00	0	0.00	0	0.00	3	27.27	5	50.00
Financial	9	29.03	11	33.33	3	20.00	4	36.36	0	0.00
Educational	0	0.00	9	27.27	5	33.33	0	0.00	5	50.00
Health	16	51.61	3	9.09	1	6.67	0	0.00	0	0.00
Recreational	0	0.00	2	6.06	3	20.00	1	9.09	0	0.00
Sports	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religious information	6	19.35	8	24.24	3	20.00	3	27.27	0	0.00
Total	**31**	**100**	**33**	**100**	**15**	**100**	**11**	**100**	**10**	**100**

Results obtained from the analysis and interpretations of data, supplied in Table 1, are as follows.

5.1.1 Information Needs of Persons with Visual Impairments by Age

Figure 1 tries to show the information needs of persons with visual impairments by age.

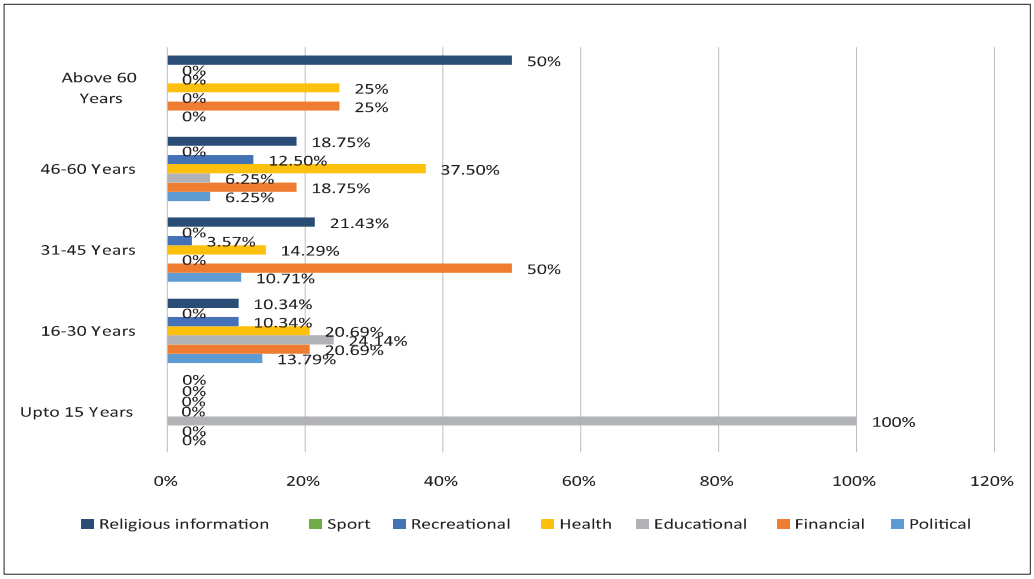

Figure 1: Information Needs of Persons with Visual Impairments by Age

From Table 1 and Figure 1, it is found that the total number of people belonging to the age group up to 15 years is 11, out of which a total of 11 respondents (100) preferred to choose the educational information. It may be because in this age group, they have more chances to be involved with educational needs. Here, the total number of respondents who belong to the age group of 16-30 years is 29. Out of them, the majority of 7 respondents (24.14) needed educational information. It is also significant here that 6 respondents each (20.69) needed financial and health-related information. Only 3 respondents each (10.34) equally showed their least choice of recreational and religious information. Also, it is found here that out of the total 28 respondents belonging to the age group of 31-45 years, the highest 14 respondents (50) preferred to choose the financial information. Also, it is seen here that only 1 respondent (3.57) showed their lowest preference to recreational information. Further, in the case of the age group of 46-60 years, the total number of respondents is 16. Out of them, 6 respondents (37.50) expressed their highest preference for health-related information. While only 1 respondent each (6.25) equally showed their lowest interest in political and educational information. Furthermore, it is found here that the total

number of respondents belonging to the age group above 60 years is 16, out of which the maximum number, i.e., 8 respondents (50), required religious information. Also, it is seen here that 4 respondents each (25) equally preferred their least choice to financial and health-related information.

5.1.2 Information Needs of Persons with Visual Impairments by Gender

Figure 2 tries to showthe information needs of persons with visual impairments by gender.

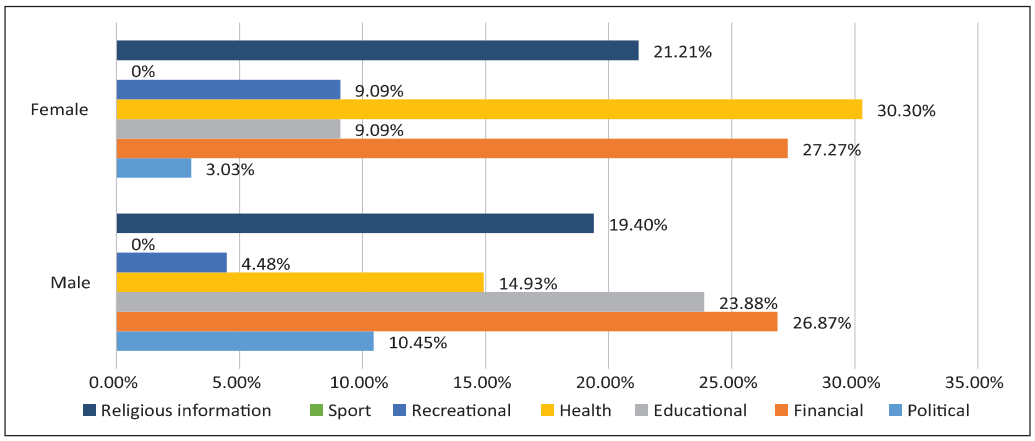

Figure 2: Information Needs of Persons with Visual Impairments by Gender

From Table 1 and Figure 2, it is found that out of the total 67 male respondents, the majority of 18 respondents (26.87) preferred to choose financial information, followed by 16 respondents (23.88) who favored educational information. It is also noticeable that a number of 10 respondents preferred health-related information (14.93). Here, only 3 respondents (4.48) had their lowest preference for recreational information. Further, it is found that in the case of females, the total number of respondents is 33. Out of them, the highest 10 respondents (30.30) preferred to choose health-related information, followed by 9 female respondents (27.27) which is the second popular choice, who preferred to choose financial information. The lowest 1 respondent (3.03) had their preference for political information. Here it is also observed that both gender showed their preferences to religious information (male: 19.40 and female: 21.21).

5.1.3 Information Needs of Persons with Visual Impairments by Income

Figure 3 tries to show the information needs of persons with visual impairments by income.

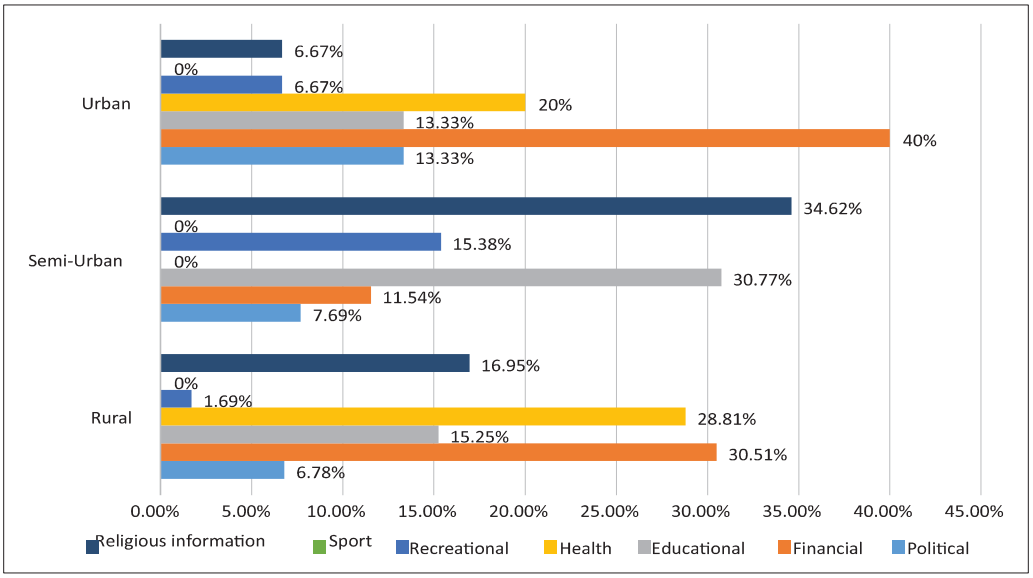

Figure 3: Information Needs of Persons with Visual Impairments by Income

From Table 1 and Figure 3, it is found that the total number of persons in the lower economic group is 76. Out of them, 23 respondents (30.26) expressed their highest preference to choose financial information. It is also significant here those 20 respondents (26.32) preferred health-related information, which is the second most popular choice. And, only 2 respondents (2.63) showed their lowest interest in recreational information. Further, it is found here that out of the total 14 respondents with the medium economic group, the majority of 6 respondents (42.86) preferred to choose religious information, followed by 3 respondents each (21.43) who equally needed educational and political information. Also, it is found that 1 respondent each (7.14) equally preferred their lowest interest to recreational and financial information. Here also, the outcomes depicted that out of the total 10 respondents with higher economic conditions, the highest 5 respondents (50) preferred to choose political information, followed by 3 respondents (30) who preferred to seek recreational information, Whereas the lowest 2 respondents (20) preferred to choose educational information.

5.1.4 Information Needs of Persons with Visual Impairments by Habitation

Figure 4 tries to show the information needs of persons with visual impairments by habitation.

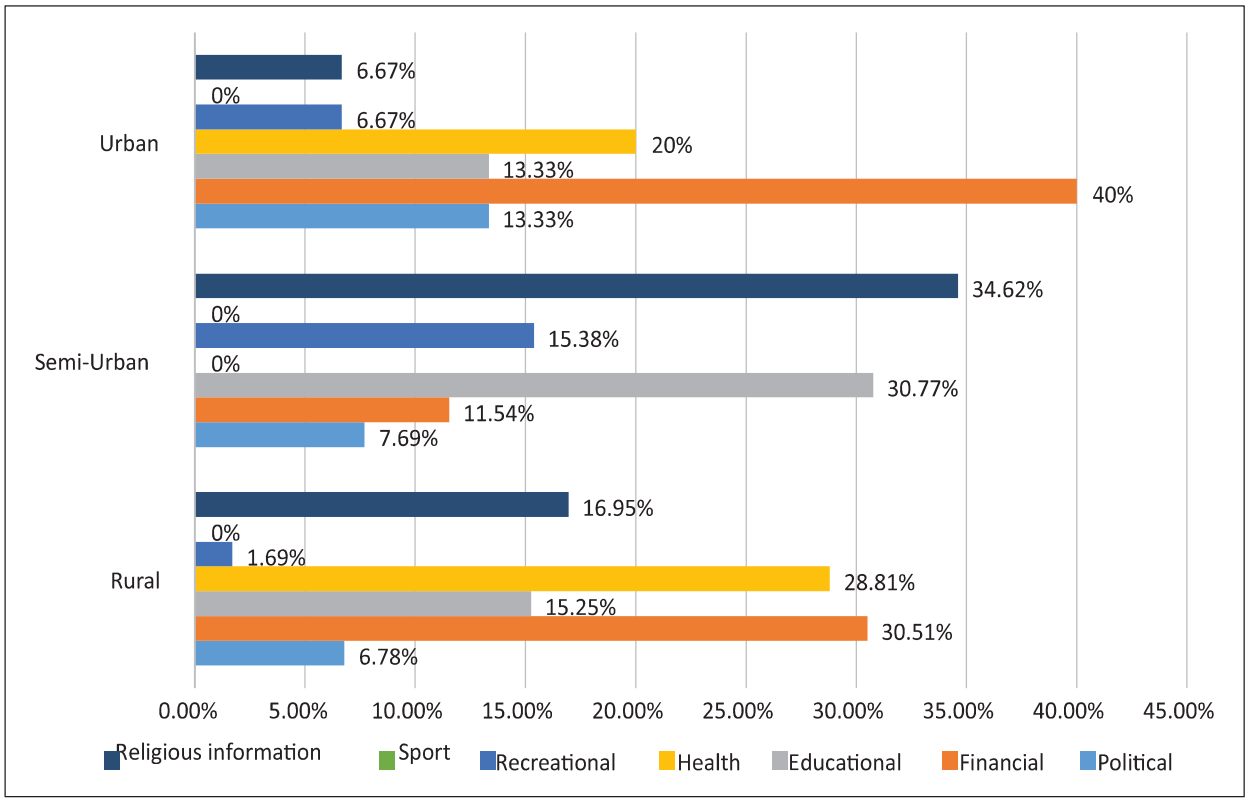

Figure 4: Information Needs of Persons with Visual Impairments by Habitation

It is found from Table 1 and Figure 4 that the total number of people living in rural areas is 59, out of which the majority of 18 respondents (30.51) preferred financial information, followed by 17 respondents (28.81) who required health-related information,whereas only 1 respondent (1.69) had the lowest interest in recreational information. Besides, it is revealed here that out of the total 26 respondents living in semi-urban areas, the maximum number of 9 respondents (34.62) preferred to choose religious information, followed by 8 respondents (30.77) who needed educational information. Only 2 respondents (7.69) expressed their lowest preference for political information, whereas in the case of respondents in urban areas, the total number is 15. Out of them, the majority of 6 respondents (40) preferred to choose financial information. Only 1 respondent, each with a percentage of 6.67, equally preferred their lowest interest to choose recreational and religious information.

5.1.5 Information Needs of Persons with Visual Impairments by Occupation

Figure 5 tries to show the information needs of persons with visual impairments by occupation

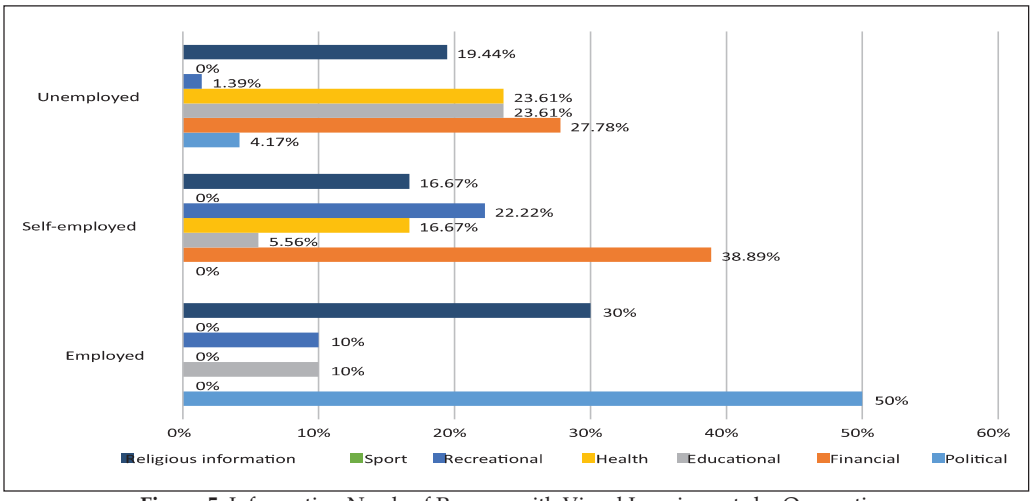

Figure 5: Information Needs of Persons with Visual Impairments by Occupation

From Table 1 and Figure 5, it is revealed that the total number of employed respondents among the above-mentioned three occupational groups is 10. Out of them, the majority of 5 employed respondents (50) preferred to choose political information, followed by 3 respondents (30) who required religious information. It is also revealed here that only 1 respondent each (10) showed their lowest interest equally in educational and recreational information. Regarding the self-employed people, the total number of respondents is 18. It is observed here that out of them, the highest 7 respondents (38.89) preferred to choose financial information, followed by 4 respondents (22.22) who liked to search for recreational information. Here, a negligible percentage of respondents, i.e., 1 respondent (5.56), needed educational information. Further, it shows here that in the case of unemployed people, the total number of respondents is 72, out of which the maximum number of 20 respondents (27.78) preferred to choose financial information, followed by 17 respondents each (23.61) who equally preferred educational and health information. Only 1respondent (1.39) showed their lowest preference in recreational information.

5.1.6 Information Needs of Persons with Visual Impairments by Educational Status

Figure 6 tries to show the information needs of persons with visual impairments by educational status.

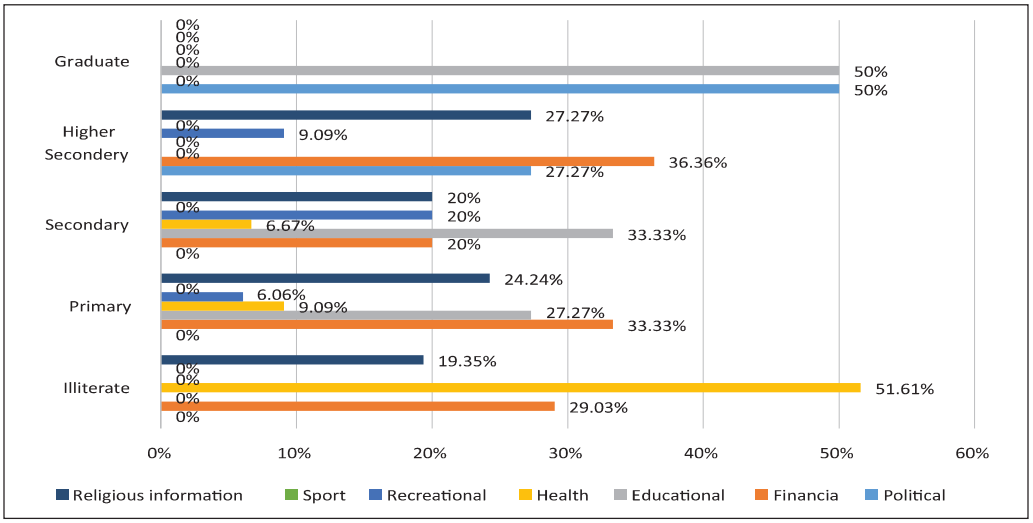

Figure 6: Information Needs of Persons with Visual Impairments by Educational Status

The total number of illiterate respondents among the five educational groups, as shown in the following Table 1 and Figure 6, is 31. According to that, 16 illiterate respondents (51.61) expressed their highest preference to choose health information, followed by 9 respondents (29.03) who used to seek financial information. Also, the remaining 6 respondents (19.35) preferred their lowest interest in religious information. Regarding the primary level of education, the total number of respondents is 33. It is observed that out of them, 11 respondents (33.33) highly preferred to choose financial information, followed by 9 respondents (27.27) who required educational information. Only 2 respondents (6.06) showed their lowest preference to seek information on recreation. Furthermore, from both the table and figure, it is found that out of the total 15 respondents, the majority of 5 respondents with educational qualifications of secondary level (33.33) preferred to choose educational information, followed by 3 respondents each (20) who equally preferred financial, recreational, and religious information. It is also found here that only 1 respondent (6.67) preferred their lowest interest to seek health-related information. Also, it is found here that out of the total 11 respondents with an educational level of higher secondary, 4 respondents (36.36) expressed their highest preference to choose financial information. It is also seen that 3 respondents each (27.27) equally preferred political and religious information. And only 1 respondent (9.09) is seen here who showed their lowest preference to seek recreational information. Further, it is found here that out of 10 respondents with a level of graduation, 5 respondents each preferred equally political and educational information, i.e., 50 each.

FINDINGS

Age significantly influences information needs. Respondents up to 15 years of age primarily preferred educational information (100), whereas respondents aged 31–45 years mostly preferred financial information (50), and those above 60 years preferred religious information (50).

Gender differences are evident in information needs. Male respondents mainly preferred financial information (26.87), while female respondents showed the highest preference for health-related information (30.30).

Income level affects information preferences. Lower-income respondents primarily sought financial information (30.26), medium-income respondents preferred religious information (42.86), and higher-income respondents mainly required political information (50).

Habitation influences information needs. Rural and urban respondents mostly preferred financial information (30.51 and 40 respectively), while semi-urban respondents showed greater interest in religious (34.62) and educational information (30.77).

Occupation creates distinct information-seeking patterns. Employed respondents mainly preferred political information (50), self-employed respondents preferred financial information (38.89), and unemployed respondents showed a higher demand for financial information (27.78).

Educational status is strongly associated with information needs. Illiterate respondents mostly sought health information (51.61), whereas graduates equally preferred educational and political information (50 each).

Financial information emerged as the most common information need across most socioeconomic groups, highlighting the importance of economic concerns in the lives of persons with visual impairments. Though, i**nformation needs vary according to socioeconomic background**, like age, gender, income, habitation, occupation, and educational status, it collectively shapes the information behaviour of persons with visual impairments.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

Libraries and information centres should develop accessible information resources in multiple formats, including Braille, audio, large-print, and digital formats, to meet the diverse information needs of persons with visual impairments.

Information service providers should design user-centred services by considering the socioeconomic differences among visually impaired users, particularly with regard to age, income, educational status, and occupation.

Greater efforts should be made to improve awareness and availability of assistive technologies, such as screen readers, text-to-speech software, and accessible mobile applications, to facilitate effective access to information.

Government agencies, educational institutions, and non-governmental organizations should collaborate to enhance information accessibility and digital inclusion for persons with visual impairments.

Future research should examine the role of emerging technologies, including artificial intelligence and smart assistive systems, in addressing the information needs and information-seeking behaviour of persons with visual impairments.

CONCLUSION

The study reveals that the information needs of persons with visual impairments vary considerably across different socioeconomic groups. Factors such as age, gender, income, habitation, occupation, and educational status influence the types of information sought by individuals. Educational information was found to be more important among younger respondents, financial information among economically active groups, health information among female and less-educated respondents, and religious information among older respondents. These findings highlight the importance of developing user-centred and inclusive information services that address the diverse needs of visually impaired persons. Libraries, information centres, and policymakers should consider socioeconomic differences while designing accessible information resources and services. Further research may explore the role of emerging digital and artificial intelligence-based technologies in meeting the information needs of persons with visual impairments.

REFERENCES

1. Bamidele, I. A. (2018). Information needs of blind and visually impaired people. In *National Conference/Annual General Meeting*.
2. Beverley, C. A., Bath, P. A., & Barber, R. (2007). Can two established information models explain the information behaviour of visually impaired people seeking health and social care information? *Journal of Documentation, 63*(1), 9–32. https://doi.org/10.1108/00220410710723867
3. Derr, R. L. (1983). A conceptual analysis of information need. *Information Processing & Management, 19*(5), 273–278. https://doi.org/10.1016/0306-4573(83)90058-1
4. Dervin, B. (1976). Strategies for dealing with human information needs: Information or communication? *Journal of Broadcasting, 20*(3), 323–333. https://doi.org/10.1080/08838157609 386402
5. Hendrikz, F. (2020). *The information-seeking process of blind and visually impaired Grade 12 learners in selected South African schools for the blind* (Master's thesis). University of South Africa.
6. Kerdar, S. H., Bächler, L., & Kirchhoff, B. M. (2024). The accessibility of digital technologies for people with visual impairment and blindness: A scoping review. Discover Computing, 27, 24.
7. Kuhlthau, C. C. (2004). Seeking meaning: A process approach to library and information services (2nd ed.). Libraries Unlimited.
8. Liang, I., Spencer, B., Scheller, M., Proulx, M. J., &Petrini, K. (2022). Assessing people with visual impairments' access to information, awareness and satisfaction with high-tech assistive technology. Disability & Rehabilitation: Assistive Technology.
9. Priscah, C. K., Shem, K. I. D., & Jane, M. (2021). Establishing Information Seeking Behavior on Access to Digital Resources by Students with Visual Impairment: A Case Study of Nairobi University Library Services, Kenya. Journal of Education, Society and Behavioural Science.
10. Valipoor, M. M., & de Antonio, A. (2022). Recent trends in computer vision-driven scene understanding for visually impaired users: A systematic mapping. Universal Access in the Information Society.
11. Wilson, T. D. (1981). On user studies and information needs. *Journal of Documentation, 37*(1), 3–15. https://doi.org/10.1108/eb026702
12. Wilson, T. D. (2000). Human information behavior. *Informing Science, 3*(2), 49–55. https://doi.org/10.28945/576
13. Wilson, T. D. (2000). Information needs and uses: Fifty years of progress? In B. Cronin (Ed.), *Annual Review of Information Science and Technology* (Vol. 35, pp. 81–105). Information Today.
14. Xie, I., Choi, W., Wang, S., Lee, H. S., Hong, B. H., Wang, N. C., &Cudjoe, E. K. (2024). Help-Seeking Situations Related to Visual Interactions on Mobile Platforms and Recommended Designs for Blind and Visually Impaired Users. Journal of Imaging, 10(8), 205.