



Information Needs and Information-Seeking Behaviour of Engineering and Medicine & Health Sciences Students of Afe Babalola University, Nigeria

Moyosade Omolade Oguntuase

University Library
Afe Babalola University, Ado Ekiti, Nigeria
ladetuase2017@gmail.com

&

Joseph Kehinde Fasae

University Library
Afe Babalola University, Ado-Ekiti, Nigeria
kennyfash2000@gmail.com

Abstract

The primary concern of an ideal academic library and its librarians is to provide effective services to the predominantly student clientele. However, achieving this goal requires a deep understanding of the information needs and seeking behavior of different user groups within the institution. To address this, a study was conducted to investigate the information and information-seeking behavior of Engineering and Medicine & Health Science (MHS) students at Afe Babalola University in Ado Ekiti, Nigeria. The study utilized a descriptive survey design and selected a sample size of 200 students through simple random sampling. Data was collected using a structured questionnaire. The findings revealed that the information needs of both MHS and Engineering students are mainly academic-oriented, focusing on enriching knowledge (84.4%) and preparing for examinations (83.8%). A significant majority of respondents (91%) prefer to consult the Internet for information, while only a small percentage (6.5% and 4.4%) rely on the university library and librarians, respectively. The study identified procrastination (67.9%) and time constraints (62.2%) as the major challenges encountered by the students. In conclusion, the study emphasizes that students' information needs predominantly revolve around academic pursuits. However, it highlights a concerning trend where traditional library services are being overshadowed by the prevalence of online resources. The study recommends that Afe Babalola University should implement programmes aimed at educating and enlightening students about the consequences of procrastination and strategies to combat it effectively.

Keywords: Information needs, Information seeking behaviour, Undergraduates, University Libraries, Nigeria

Introduction

Information is a wide-ranging concept that involves processed, organized, or structured data, which becomes useful and relevant for specific purposes or contexts. It carries meaning, significance, or knowledge that can be communicated, understood, and utilized by individuals or systems. This concept is fundamental in fields like information theory, computer science, communication, librarianship, and philosophy. The power and roles of information are essential in all aspects of life, leading to its immediate pursuit whenever a knowledge gap is identified.

In the search for information, individuals undergo processes and activities collectively known as information-seeking behavior. Information-seeking behavior involves the actions and steps individuals take to find, access, and use information to meet their information needs or address specific problems. It includes the various methods people employ to retrieve, evaluate, and utilize information from diverse sources and channels (Zimmerman & Shaw, 2020).

The purpose for which information is sought is termed as information need (Soong et al., 2020). These needs are influenced by different factors, meaning that the information sought by a doctor differs from that sought by a teacher. Understanding information-seeking behavior and needs helps in tailoring information resources and services to meet the diverse requirements of individuals across various fields and professions.

Like everyone else, university undergraduate students of Afe Babalola University (ABUAD), like other students, heavily rely on information to succeed in their academic programmes. They need information regularly, whether it is on a daily or weekly basis, for various academic and personal activities. Scholars have highlighted that access to basic human rights is closely linked to access to information (Woods, 2022). Additionally, some scholars have emphasized the critical role of information in the academic success of undergraduate students (Almaiah et al., 2019).

At Afe Babalola University (ABUAD), a privately owned university, established in 2009 and situated in Ado-Ekiti, Ekiti State, in Nigeria, the Engineering and Medicine & Health Sciences (MHS) students, like their counterparts elsewhere, require information for their educational endeavors such as classwork, research projects, and other academic tasks. These students have diverse information needs, including subjective, developmental, personal, and research-related

needs, which they fulfill through various sources like Information Communication Technology (ICT) applications, libraries, lecture rooms, social media, and more.

Undergraduates gather information to enhance their intellectual knowledge, prepare lecture materials, stay updated on their environment, conduct experiments, make observations, and prepare presentations. It's important to recognize that the information-seeking behaviors of professionals, students, and researchers differ, and librarians must cater to these diverse needs by providing resources that meet users' requirements effectively and consistently.

Statement of the Problem

Understanding the information needs and seeking behaviors of Engineering and MHS students at ABUAD is vital for boosting their academic performance and research outcomes. Many students who are unaware of the available resources like library databases and other digital tools, often face challenges in seeking their information needs. Given the diverse academic interests across disciplines, it is crucial to customize information services to address the specific requirements of each student group. Investigating these behaviours and needs will provides areas for enhancement, directly benefiting student learning and research at ABUAD.

Objectives of the Study

The main objective of the study is to examined information needs and information-seeking behaviour of Engineering and Medicine & Health Sciences (MHS) students of Afe Babalola University (ABUAD), Nigeria. The specific objectives are to:

- i. ascertain the information needs of Engineering and MHS students in ABUAD;
- ii. find out the sources consulted by the Engineering & MHS students in ABUAD when seeking information;
- iii. determine the purpose for which the Engineering & MHS students in ABUAD need and seek for information; and
- iv. highlight challenges encountered by the Engineering & MHS students in ABUAD when seeking information.

Research Questions

The following research questions were raised to guide the study:

- i. What are the information needs of Engineering & MHS students in ABUAD?
- ii. What are the sources consulted by Engineering & MHS students in ABUAD when seeking information?

- iii. What is the purpose for which Engineering & MHS students in ABUAD need and seek information? and
- iv. What are the challenges encountered by Engineering & MHS students in ABUAD when seeking information?

Literature Review

Seeking information is a crucial engagement in our daily lives needed for various purposes. Information is crucial for organizations, institutions, and individuals alike (Olufemi et al., 2020). It fills gaps in knowledge and helps in decision-making (Turner et al., 2023). Wilson's theory of information-seeking behavior suggests that when individuals lack information, they are motivated to seek it (Wilson et al., 2021). Students, for instance, may seek information for academic purposes, assignments, projects, or leisure activities. This need triggers internal responses, such as determining where to find information (Soroya et al., 2021).

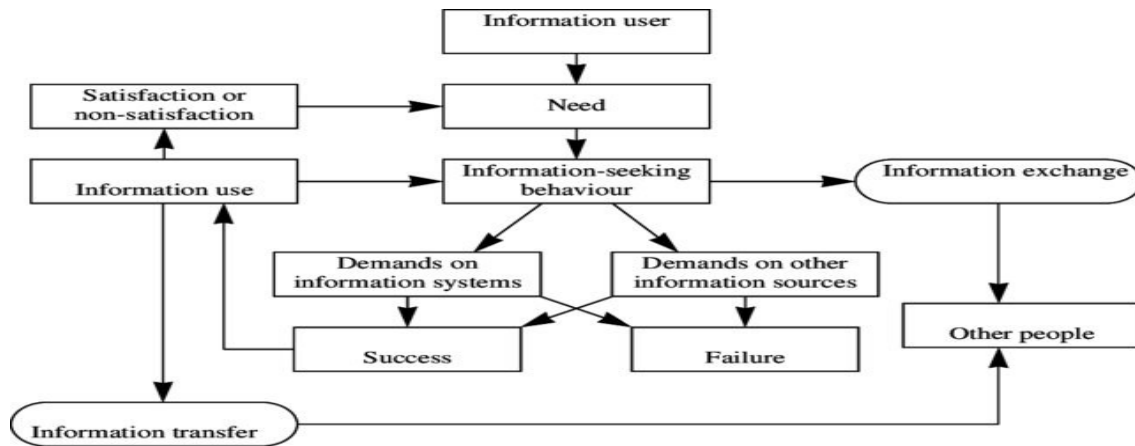
The study of how people search for and use information is a crucial part of information science. Scholars like Bates (2006) argue that while Wilson's theory of information-seeking behavior is valuable, it doesn't cover every aspect of how people judge the relevance of information or evaluate search outcomes. Research in information science aims to understand how individuals seek and utilize information in different situations. This field examines patterns and strategies people use when looking for information and how they decide what information is relevant. Understanding these behaviors helps improve information systems and services.

Information-seeking behavior involves the systematic process of acquiring information, which includes both human-driven and technical approaches. It encompasses activities like searching, locating, and retrieving information. Researchers like Soroya et al. (2021) delve into the motivations behind why people seek information and how they use the information they find. The study of information seeking behavior is multifaceted. It not only focuses on improving information systems but also explores the factors that influence user behavior and their information needs. By understanding these factors, researchers can develop better tools and services to meet the diverse information needs of individuals. Bakare and Bakare (2021) affirmed libraries should adopt emerging technologies for the provision of globalised library services in meeting users' varied information needs. They need to up their game and embrace technological innovations as tools for effective service delivery.

Kadir et al. (2018) conducted a study to understand how students at SEGi University seek information. They looked at the types of information students needed, where they found it, and how aware they were of library resources. The study suggested that the SEGi University Library should offer better training programs to help students use library resources effectively. They also recommended that the library should expand its collection of resources and regularly evaluate its performance.

In another study by Chanda (2021) on college students in Guwahati Metro, it was found that students heavily relied on the library's Online Public Access Catalog (OPAC) and Google search engine for information. Most students sought information to prepare assignments, notes, and for competitive exams. However, they faced challenges like inadequate study materials, poor internet connectivity, and difficulty finding information sources. The study also highlighted a shift towards online information access among students, who prefer remote access to library resources. This indicates a need for libraries to enhance their digital services to better meet the needs of students. It's important for libraries to address these gaps and adapt to students' changing preferences for accessing information online.

Figure 1: Wilson's model of Information-Seeking Behavior (1981)



Note: Dipak Kumar Kundu (2017), www.ijlis.org › articles › models-of-information

Wilson (1981) cited in Kundu (2017) suggests that people seek information because they perceive a need for it at different stages. To fulfill this need, they turn to various formal or informal sources of information or services. Wilson's model explains how people look for information and why they feel the need to do so. It analyzes how individuals discover and access information resources. The model highlights that the process of seeking information

involves searching for the specific information required, which can either meet or fail to meet expectations. This process is crucial for researchers and students as they navigate their information searches.

Researchers have used models to study how users seek information in academic institutions worldwide. Wilson introduced an information-seeking behavior model in 1997, suggesting that an individual's need for information is secondary to other primary needs. When trying to fulfill these needs, individuals encounter various challenges. Wilson stresses that an individual's information needs stem from personal or community issues. He further explains that barriers to information search arise while trying to fulfill these needs. Therefore, it can be inferred from the model that undergraduates' information needs and seeking behavior are influenced by personal and community factors (Kundu, 2017).

Methodology

The study used a descriptive survey design to gather information. The population consisted of 2,200 undergraduate students from Afe Babalola University in Nigeria. This included 1,256 students from the College of Medicine & Health Sciences (MHS) and 944 students from the College of Engineering, during the 2022/2023 Academic Session. A sample size of 10% of the population was used while a quota sampling techniques was adopted. Using purposively sampling techniques, a structured questionnaire was administered to 200 students in their lecture rooms after classes with the permission of their lecturers. This covered 100 level to 400 level students, including the Medical students on clinical. The collected data were analysed using frequency counts and percentages, presented in tabular form, histograms, and bar charts.

Findings and Discussion

Table 1: Questionnaire Administered and Returned

College of Engineering			College of Medicine & Health Sciences (MHS)		
Department	Questionnaire Administered	Questionnaire Returned	Department	Questionnaire Administered	Questionnaire Returned
Petroleum	20	15	Medicine Laboratory Science	20	18
Chemical	20	12	Nursing Science	20	17
Civil	20	14	Physiology	20	15
Computer	20	15	Human Nutrition & Dietetics	20	16
Electrical/ Electronic	20	16	Medicine & Surgery	20	15

Mechatronics	20	15	Anatomy	20	19
Mechanical	20	13			
Total	140	100	Total	120	100

Table 1 provided comprehensive data regarding the administration and subsequent utilization of questionnaires within the student cohort at ABUAD. A total of 260 copies of the questionnaire were distributed among students enrolled in the Engineering and MHS programs. Subsequently, an impressive tally of 200 completed questionnaires was returned, constituting a significant response rate of 76.9%. These responses were deemed viable and instrumental for the ensuing analysis, thereby affirming the robustness and reliability of the dataset under scrutiny. This commendable level of engagement shows the active participation and vested interest of students in contributing to the research endeavors undertaken within the academic milieu of ABUAD, thereby facilitating the generation of meaningful insights to the study.

Table 2: Demographic Data of the Respondents

Variables	Percentage	Variables	Percentage
Gender		Age Range	
Male	54.5	15-17	5.1
Female	45.5	18-20	60.9
Total	100	21-23	33.3
Level of Study the Respondents		24-26	0.7
100	3.8	27-29	0.0
200	12.8	Total	100
300	30.3		
400	40.4		
500	12.8		
Total	100		

Table 2 indicates that 54.5% of the respondents were male, while 45.5% were female, suggesting a higher representation of males in ABUAD. Moreover, the data reveals that the largest portion of respondents, accounting for 40.4%, were in their 400 level, followed by 33.3% in the 300 level. Only 12.8% of respondents were distributed across the 200 and 500 levels. This distribution indicates a prevalence of students in their fourth year of study. Additionally, the majority of respondents, comprising 60.9%, fell within the 18-20 age bracket, with 33.3% falling between 21-23 years. A smaller percentage, 5.1%, were aged 15-17 years, while only one respondent fell within the 24-26 age range. This age distribution suggests a dominance of younger individuals in the MHS and Engineering fields. Overall, the data

highlights the demographic composition of the respondents and provides insights into the age and gender distribution among undergraduate students at ABUAD.

Information needs of the Students

Figure 2: Information needs of Students

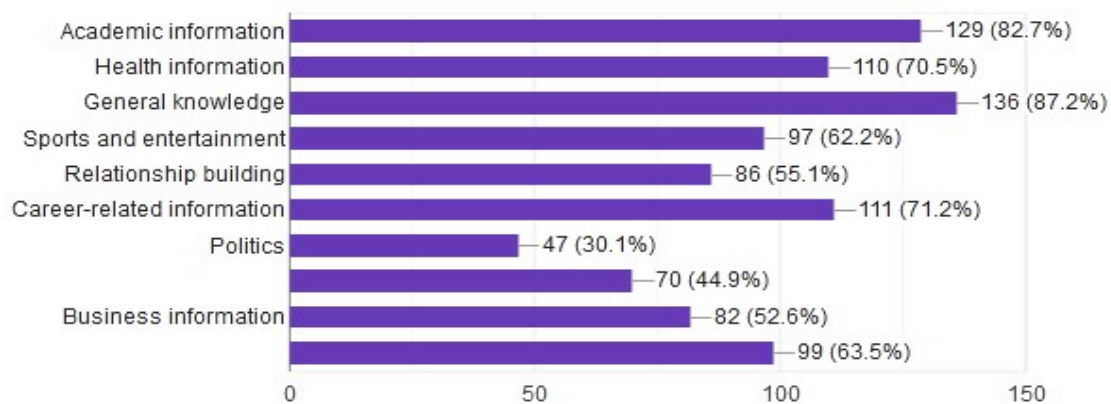


Figure 2 illustrates that the majority of respondents, accounting for 136 (87.2%), expressed a need for and sought information related to general knowledge. Additionally, 129 (82.7%) respondents indicated a requirement for academic information. Conversely, the least identified information need among respondents was in politics, with only 30.1% expressing interest. This data suggests that students in MHS and Engineering at ABUAD have varied information needs, reflecting the diverse nature of their academic pursuits and interests. It underscores the importance of accessing a wide range of information sources to support their academic and personal development endeavours. This diverse range of information needs underscores the importance for students in medicine and engineering to access varied resources to support their academic and professional development. This agreed with the findings of Motawah, Sen, and Willett (2020) that observed heavy usage of information resources among engineering students

at a Kuwaiti university for academic purposes, echoing the findings of Kim and Benson (2018) regarding American engineering students' reliance on information resources for problem-solving.

Frequency of Information-Seeking Behaviour

Figure 3: Frequency of Information-Seeking Behaviour

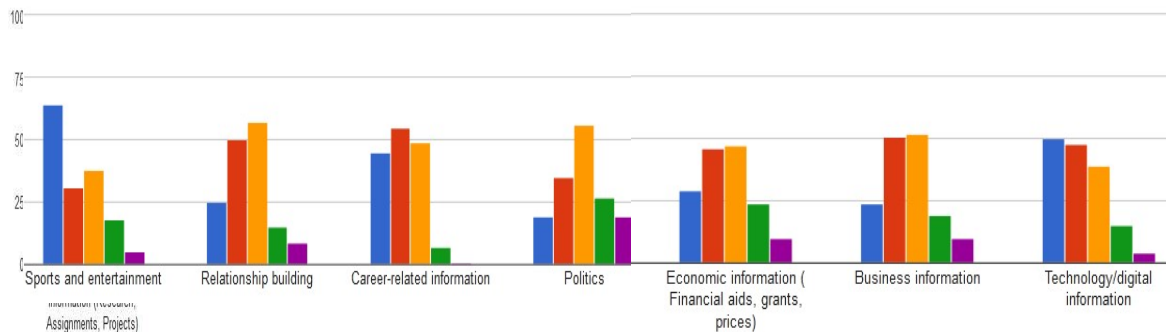


Figure 3 provided insights into the frequency of information-seeking behaviors exhibited by the students surveyed. The data unearthed a predominant trend wherein a substantial majority of students, comprising 99 individuals (63.5%), displayed a propensity to seek academic-related information on a daily basis. This category encompassed a spectrum of scholarly pursuits including research endeavors, assignment inquiries, and project undertakings, underscoring the paramount importance accorded to educational pursuits within their daily routines. Similarly, a significant proportion of the student populace, totaling 81 individuals (51.9%), demonstrated a habitual inclination towards seeking general knowledge information on a daily basis. This broad category encapsulated a diverse array of informational quests spanning various domains beyond the confines of academia, reflective of the students' intrinsic curiosity and quest for holistic intellectual enrichment. Moreover, the study delineated the frequency with which students engaged in seeking health-related information, with 76 respondents (comprising 48.7% of the sample) indicating a propensity to pursue such information at least once a week. This attested to the students' conscientious efforts towards maintaining their physical well-being and staying abreast of pertinent health-related developments. Conversely, economic information, encompassing facets such as financial aid, grants, and price fluctuations, emerged as the least sought-after category among students across both faculties. This corroborates findings by Zhong et al. (2018), who observed analogous

trends among undergraduate nursing students in Chinese universities, thereby corroborating the universality of these patterns across diverse educational settings and demographic cohorts.

Sources consulted by Engineering & MHS students of Afe Babalola University when seeking information

Figure 4: Sources Consulted for Information Seeking

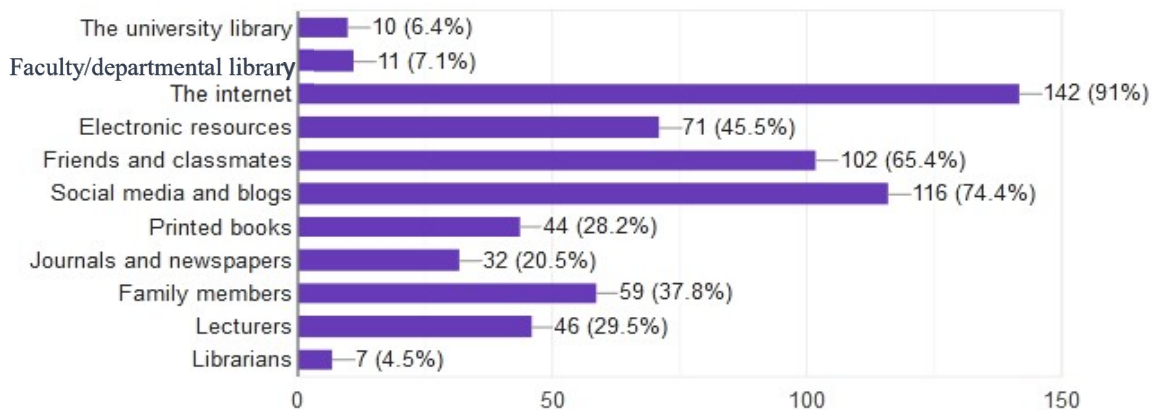


Figure 4 illustrates the predominant channels utilized by undergraduate students in their quest for information, with the Internet emerging as the foremost source, garnering the allegiance of a significant majority comprising 142 respondents (91%). This unequivocally underscores the pervasive influence of digital technology in facilitating the dissemination and acquisition of knowledge among contemporary student demographics. Furthermore, the data revealed a substantial reliance on social media platforms and blogs, with 74.4% of respondents indicating their utilization of these channels when seeking information. This trend reflects the evolving landscape of information consumption, wherein online social networks serve as dynamic hubs for the exchange of ideas, insights, and informational resources. Additionally, the study revealed the significance accorded to interpersonal networks, with friends and classmates emerging as favored sources of information for a notable proportion of students, accounting for 65.4% of respondents. This underscores the intrinsic value placed on peer interactions and collaborative knowledge-sharing within academic circles. Conversely, the study highlighted a discernible preference for digital sources over traditional repositories of knowledge, as evidenced by the comparatively limited consultation of librarians during the information-seeking process. This stressed the evolving dynamics of information access and retrieval, with contemporary students gravitating towards the convenience and immediacy afforded by web-

based resources. These findings corroborate the broader research trends explained by scholars such as Samzug (2019) and Phulsunga et al. (2021), revealing the global phenomenon of escalating reliance on digital platforms for information acquisition across diverse educational contexts. Moreover, the study highlights the nuanced and multifaceted nature of students' information-seeking behaviors and requirements, particularly within the distinctive milieu of ABUAD, thereby enriching our understanding of the evolving dynamics shaping contemporary academic inquiry and knowledge dissemination.

Purpose for which Students Need and Seek Information

Figure 5: Purpose for which Students Need and Seek Information

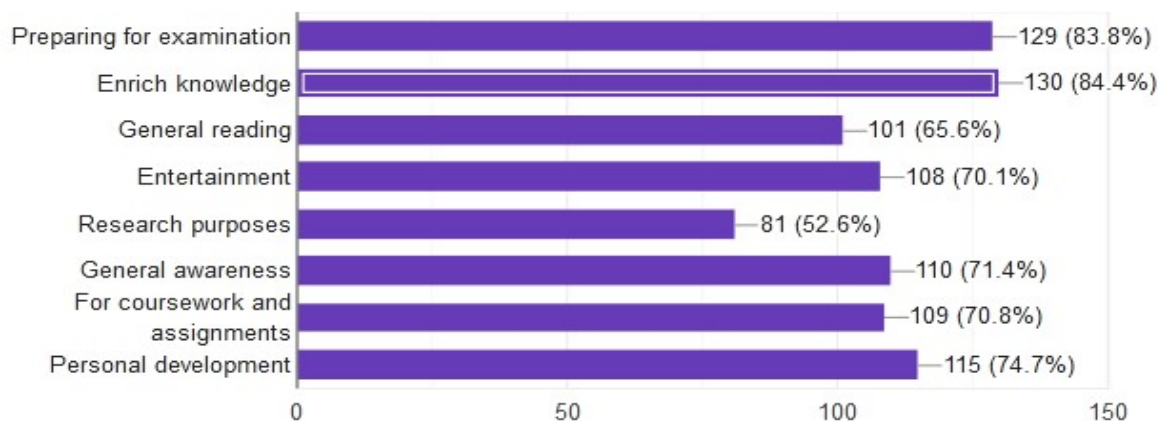
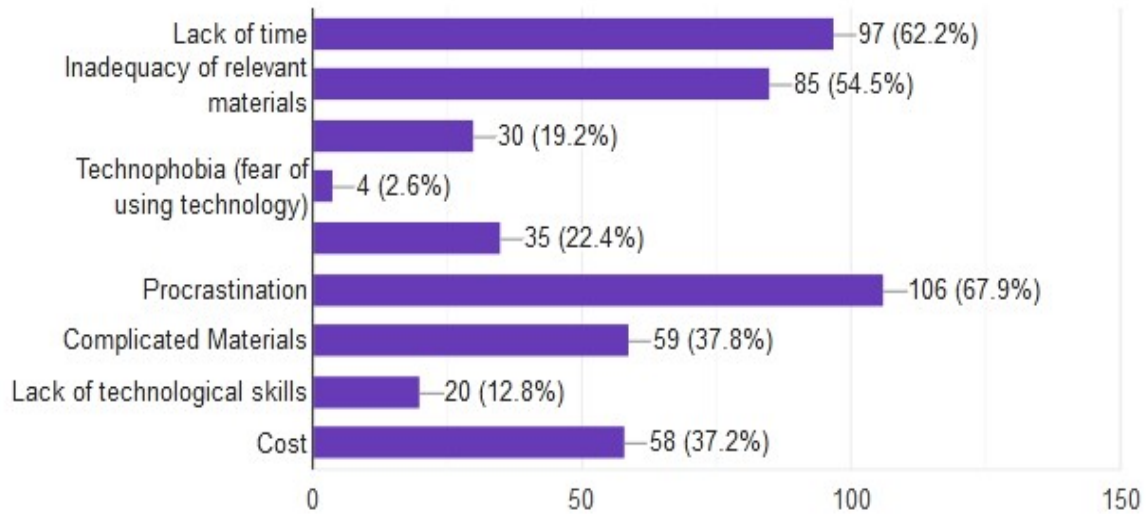


Figure 5 revealed that enriching knowledge, 84.4% was the major purpose for seeking information by most of the respondents in ABUAD. Also, preparing for examination was indicated by 83.8% of the total respondents, as well as personal development with 74.7% respondents. The results imply that the MHS and Engineering students in ABUAD utilize information for diverse purposes such as expanding their knowledge base, preparing for examinations, and fostering personal development. This variance in information-seeking objectives highlights the complexity of students' academic and intellectual pursuits.

Interestingly, the findings diverge from previous research by Baba and Ganaie (2020), which primarily focused on Indian students and their predominant use of information resources for exam preparation and subject exploration. Similarly, Mayer et al.'s (2020) observations among students in the United States underscored a strong reliance on library resources for exam readiness and coursework completion. The contrast in findings stresses the unique information-seeking behaviors prevalent among MHS and Engineering students at ABUAD compared to their counterparts in different educational settings.

Challenges encountered by Students of ABUAD when Seeking Information

Figure 6: Challenges encountered while Seeking Information



As shown in Figure 6, the main obstacles faced by MHS and Engineering students at ABUAD in meeting their information needs and seeking behavior include procrastination (67.9%), a shortage of time (62.2%), and an inadequacy of relevant materials. Surprisingly, technophobia, reported at only 2.6%, appears to be the least significant challenge. This indicates that university undergraduates, despite facing common challenges related to time management and resource availability, are becoming more adept at utilizing technology. The low prevalence of technophobia suggests that students are adapting well to technological advancements, especially considering the increased reliance on digital tools and resources due to the COVID-19 pandemic. These challenges, as highlighted by Baba and Ganaie (2020) in their research on Indian students, resonate across different educational landscapes, transcending geographical boundaries. The commonality of these challenges underscores the universal struggle students' face in accessing and utilizing information resources effectively. In essence, the study provides valuable insights into the dynamic interplay between students' information-seeking behaviors and the challenges they encounter. By understanding these nuances, educators and institutions can devise strategies to support students in overcoming obstacles and maximizing the benefits of information access for their academic and personal growth.

Conclusion

The rapid advancement of digital technologies has significantly influenced the information needs and seeking behavior of university undergraduates, empowering them to rely more on technology-related sources like the Internet and social media when searching for information. The study concluded that undergraduate students at Afe Babalola University heavily depend on information to excel in their academic endeavors and research pursuits. Specifically, they turn to the Internet, electronic resources, social media platforms, and blogs to fulfill their information needs. Given the demanding nature of their assignments, coursework, seminar paper presentations, examinations, research projects, and tests, students often find themselves in need of information to support their academic tasks. This underscores the crucial role of information as a vital resource in the daily lives of individuals, particularly university undergraduates. However, despite its significance, accessing adequate information resources poses challenges for students, a phenomenon not unique to Nigeria.

Recommendations

Based on the findings, the study recommends that Afe Babalola University should implement programmes aimed at educating and enlightening students about the consequences of procrastination and strategies to combat it effectively. Furthermore, the university should prioritize the enhancement of its library and digital resources, ensuring they are well-stocked with materials relevant to the information needs of both Engineering and Medicine & Health Science (MHS) students in order to build and develop a better engineer and medical & health experts needed for the nations. By addressing these recommendations, the university can better support its students in navigating the complexities of information access and utilization in their academic pursuits.

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