

## EVALUATING ACCESS AND USE OF LIBRARY INFORMATION RESOURCES AMONG STUDENTS AT RIFT VALLEY NATIONAL POLYTECHNIC, NAKURU COUNTY, KENYA

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### ABSTRACT

This study aimed to evaluate access to and use of library information resources for students' academic success at Rift Valley National Polytechnic (RVNP). Academic libraries are vital for supporting teaching, learning, and research in higher education. As digital technologies become more widespread, libraries now provide both physical and digital resources, including e-journals, databases, and e-books. However, students often underuse these resources. This gap between availability and actual use highlights the need to understand what influences students' engagement with library materials. Without this understanding, libraries may struggle to fully support academic success. The research used the Expectation Confirmation Theory and employed a mixed-methods approach. The population included 2025 RVNP students, with a stratified random sample of 206 students selected, along with one librarian for an interview. Data collection involved student questionnaires and face-to-face interviews with the librarian. Quantitative data were analysed using SPSS through descriptive and inferential statistics, while qualitative data were analysed thematically. Results indicate that print books remain the primary resource in TVET libraries, with limited access to electronic resources. The study recommends increased investment in electronic resources and digital infrastructure to remain relevant in today's technology-driven environment.

**Key terms:** Access, availability, digital information resources, information resources, print information resources.

## INTRODUCTION

Technical and Vocational Education and Training (TVET) equips learners with the practical knowledge, skills, and competencies necessary to participate effectively in both formal and informal labour markets (Technical and Vocational Education & Training Authority, 2018). By preparing craftsmen, technicians, and technologists, TVET institutions contribute directly to workforce development, poverty reduction, and economic transformation. Governments worldwide have increasingly recognised the sector's potential, investing in vocational education as part of strategies to foster employment creation and sustain national development. A skilled and productive workforce is widely acknowledged as a prerequisite for achieving long-term economic growth.

Within this framework, libraries play a critical role in supporting education, learning, and research. Globally, academic libraries have evolved from repositories of physical collections into hybrid infrastructures that integrate both print and electronic resources. They now provide users with access to a wide range of materials, including e-books, electronic journals, and online databases, thereby enhancing knowledge creation and innovation (Musyoka & Chirchir, 2013). Numerous studies in developed contexts demonstrate that students who actively access and utilise library resources achieve stronger academic outcomes compared to their peers who do not. They continue to face barriers, including outdated collections, insufficient technological infrastructure, and limited digital literacy, which constrain their effective engagement with information resources.

In Kenya, the government has emphasised education as a pillar of national development under its Vision 2030 strategy, highlighting the need for quality learning, lifelong education, and strengthened vocational training. Policies promoting ICT integration and digitisation of library services have been introduced to improve access to information resources. However, implementation remains uneven, and polytechnics often lag behind universities in terms of infrastructure and capacity (Koech & Mutai, 2015). Persistent challenges such as limited bandwidth, outdated resources, inadequate training, and restricted access to e-resources continue to affect TVET institutions. Consequently, many students rely

more heavily on lecture notes or peer-shared materials than on formal library holdings (Wanyonyi, Cephas, & Sikolia, 2018; Zipporah, Stephen, & Adhiambo, 2023).

National Polytechnics present a distinct case within the TVET system. Their mission of equipping learners with practical, market-oriented skills requires access to specialised and technical information resources. However, research on library resource utilisation in Kenyan polytechnics remains limited compared to universities (Mong'are, 2014). This gap is significant because students in polytechnics may exhibit unique information-seeking behaviours and support needs, shaped by the applied and technical nature of their training. Without adequate and accessible library services, these learners may struggle to meet academic requirements, thereby undermining their readiness for employment.

The Rift Valley National Polytechnic (RVNP) in Nakuru County offers a pertinent context for such an inquiry. As one of the largest polytechnics in Kenya, it provides both print and electronic library resources and serves as a key academic support unit for a large and diverse student body. Yet questions remain regarding the adequacy of its collections, the accessibility of services, and the extent of student engagement with available resources. Furthermore, little is known about how satisfied students are with the library's support in meeting their academic needs, particularly against the backdrop of rapid enrollment growth, infrastructural constraints, and evolving user expectations (Musyoka & Chirchir, 2013; Koech & Mutai, 2015).

Understanding access to and use of information resources in the RVNP library is therefore crucial. Evaluating how students interact with both physical and digital collections provides valuable insights into whether the library is fulfilling its role in supporting teaching, learning, and research. Such an evaluation can help identify barriers to access, inform investment in library infrastructure, and guide service improvements. Ultimately, the effectiveness of academic libraries lies not only in the availability of resources but also in their utilisation and impact on student success. This study addresses this gap by examining the accessibility and use of information resources at RVNP.

## LITERATURE REVIEW

Academic libraries play a central role in higher education by supporting teaching, learning, and research. Beyond their traditional role as repositories for books and journals, they function as intellectual and social spaces where academic communities generate and exchange knowledge. As digital technologies expand, libraries have evolved into hybrid infrastructures that integrate physical and electronic services, shaping academic outcomes and institutional value.

A large body of evidence links library use to improved student academic performance. Dent (2006) demonstrated that access to quality resources enhances student outcomes regardless of total reading volume. Similarly, De Jager (2002) found positive correlations between borrowing activities and higher scores or grade point averages, with Cox and Jantti (2012) confirming similar results in Australia. Collectively, these findings highlight that students who actively use library resources develop stronger scholarship through wider reading and referencing. More recent studies extend this association to digital contexts: Consistent use of print and electronic resources significantly improves coursework outcomes, especially where extensive reading is required.

The rapid rise of digital resources has further transformed library services. During the COVID-19 pandemic, remote access to electronic collections became indispensable to sustaining academic work. In Kenya, Owoko (2024) reported that 62 per cent of students in Technical and Vocational Education and Training (TVET) institutions accessed online resources daily, though poor connectivity posed challenges. For faculty, libraries provide time-saving digital tools that enhance productivity (Tenopir & Volentine, 2012) and contribute to grant success and quality scholarship (Tenopir et al., 2010).

Changing user preferences also reflect this digital transformation. Faculty and students increasingly prefer electronic over print resources (Tenopir et al., 2009), valuing speed and convenience (Xu & Du, 2018). Liu (2016) caution, however, that libraries must strike a balance between investing in digital and print formats to remain relevant. At the same time,

challenges persist. Cox (2019) and Bronstein (2007) highlighted that digital access has made physical visits to libraries optional, while Ozoemelem (2009) noted that although students recognise library resources as more reliable, they often default to the web for convenience. In Kenyan TVET institutions, Misenda and Wanami (2022) and Koech et al. (2023) identified insufficient ICT competencies, poor infrastructure, and limited computer access as barriers to full engagement with e-resources.

The issue of access also intersects with equity. Walton and Hepworth (2011) observed that students from disadvantaged or rural backgrounds face barriers such as limited devices, poor internet connectivity, and low digital literacy. Misenda and Wanami (2022) found that fewer than half of Kenyan counties had reliable internet during the pandemic, with rural areas particularly disadvantaged. Similarly, Koech et al. (2023) showed that students often turned to social media platforms like WhatsApp and Facebook for academic purposes due to ease of access, though this compromised academic rigour. Bridging the digital divide is essential for inclusive and equitable higher education.

Beyond resource access, libraries play an active educational role by fostering information literacy. Gross and Latham (2012) defined this competency as the ability to locate, evaluate, and effectively use information—skills critical for both academic and lifelong learning. Saunders (2018) found that students who participated in information literacy training exhibited improved critical thinking and academic achievement. Physical spaces also remain important despite the rise of digital access. Students value libraries for studying, collaboration, and socialization. However, TVET institutions often face challenges of inadequate library space, as Osawa et al. (2018) and Makunja (2016) demonstrated, which limits their capacity to support modern competency-based curricula.

In recent years, the role of libraries has also been reframed through accountability and impact measurement. Tenopir (2009) emphasised the need to evaluate libraries not only by their utility but also by their broader contributions to universities and society. Usage data such as borrowing rates, downloads, and

database queries have been correlated with academic outcomes and research productivity (Cox & Jantti, 2012). To this end, libraries are increasingly adopting learning analytics and data visualisation tools to demonstrate value and inform resource allocation.

Finally, the COVID-19 pandemic highlighted the need for libraries to be agile and responsive. With physical spaces closed, libraries expanded digital collections, offered virtual consultations, and delivered online tutorials. Byrnes et al. (2021) observed, unequal access to technology and appropriate study environments underscored persistent barriers, reinforcing the continuing relevance of physical libraries in an increasingly digital environment.

In summary, academic libraries remain integral to student learning and faculty research. They contribute to academic performance, research productivity, and institutional value through a combination of physical and digital services. Yet, the expansion of digital resources brings challenges of equity, digital literacy, and infrastructural readiness, particularly in resource-constrained contexts such as TVET institutions in Kenya. Addressing these challenges requires libraries to balance physical and digital investments, foster information literacy, and bridge the digital divide to remain inclusive, equitable, and effective in supporting higher education.

## METHODOLOGY

This study employed a descriptive case study design to analyse access to and use of information resources among students at Rift Valley National Polytechnic (RVNP). A case study approach was selected because it enables in-depth examination within a specific institutional context and is effective for describing, comparing, and evaluating complex aspects of a research problem (Zainal, 2007). To capture a comprehensive understanding, both qualitative and quantitative methods were integrated.

The study was conducted at the RVNP library, located on the institution's main campus in Nakuru County, Kenya. RVNP is the largest public Technical and Vocational Education and Training (TVET) institution in the county, offering a wide variety of technical programs. Its library, described as a modern hybrid library, provides both print and electronic resources,

making it a suitable site for this study. The target population consisted of 2,025 students enrolled at RVNP. A sample size of 206 students was calculated using a single-proportion design, based on a 10 per cent confidence interval and a 95 per cent confidence level. Stratified random sampling was employed to ensure proportional representation across academic departments, with simple random sampling applied within each stratum. This procedure minimised selection bias and ensured equal opportunity for participation. In addition, one librarian was purposively selected through convenience sampling to provide expert insights into the availability and management of library resources. Data collection relied on two instruments: student questionnaires and a face-to-face interview with the librarian. The questionnaires captured quantitative data on students' access to and use of library resources, while the librarian interview generated qualitative insights on the challenges and effectiveness of the library in meeting academic needs. The mixed-methods approach ensured complementarity between the two strands of data, thereby enhancing the robustness of the findings. Quantitative data were entered into SPSS and analysed using descriptive and inferential statistics. Descriptive statistics summarised access patterns and usage frequency, while inferential tests identified relationships between variables such as resource availability and student utilisation. Qualitative data from the librarian interview were transcribed and subjected to thematic analysis, which involved coding and categorising responses to identify recurring themes. The integration of both data types allowed for triangulation, thereby strengthening the validity and reliability of the study. By combining a descriptive case study design with mixed methods, the research provided a nuanced understanding of how library information resources are accessed and utilised by students at RVNP, as well as the challenges faced in fulfilling their academic requirements.

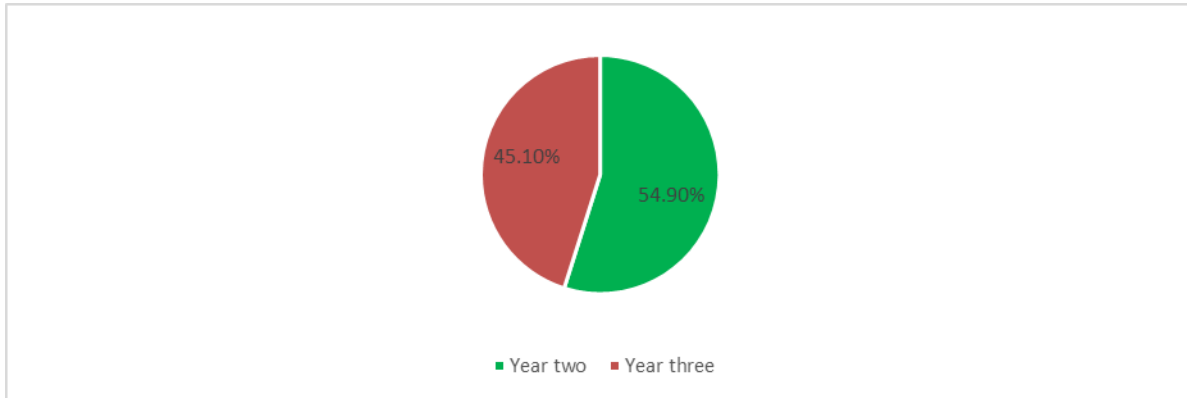
## FINDINGS AND DISCUSSION

### Demographic Information of Respondents

As shown in Figure 1 below 54.9 per cent of the respondents were in year two of their studies, while 45.1 per cent were in their third year of studies, which is the final year of studies in the Kenyan TVET system. The study purposively targeted second-year and third-year students because they were more likely to be

familiar with the available college's library information resources and more likely to utilise the resources. This postulation was in coherence with Whitmore (2001), who found that a student's level of library use increases during each successive year of the study.

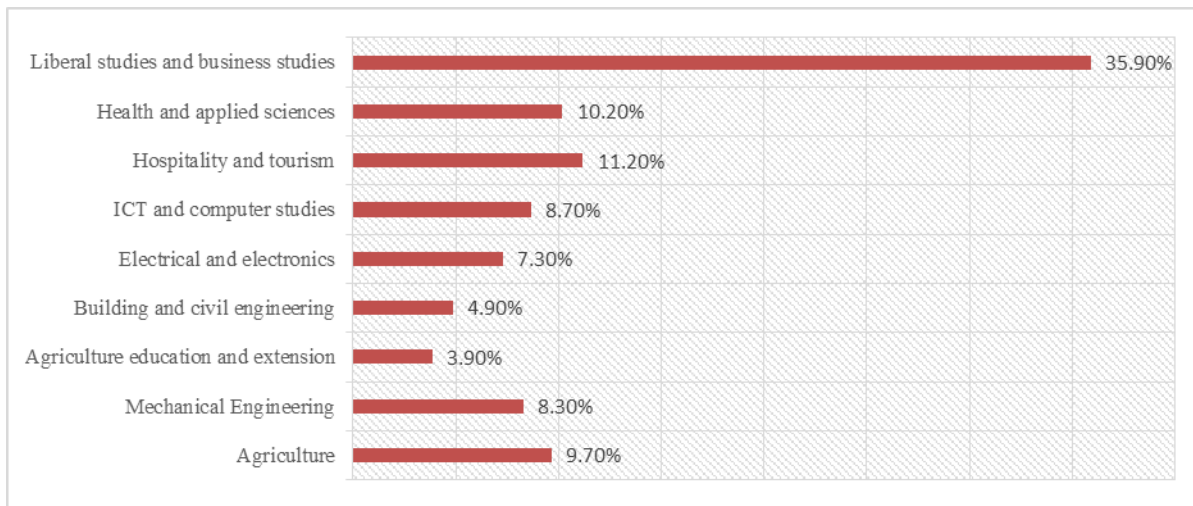
Hence, the selected students were likely to provide the best sample to evaluate the availability, access and user experience of library information resources available in the institution.



**Figure 1: Year of Study**

The results in Figure 1 below show that most (35.9%) of the students were students of programs in the

department of liberal sciences and business studies.



**Figure 2: Department Affiliation**

### Information Resources Availability by Year of Study

The results of the availability of information resources by year of study are shown in Table 1 below. According to the results, the ranking of the information resources as per availability was similar for both second and third-year students. The ranking from most available to the least available is as follows: books, internet, newspaper, magazines and the least available information resources being electronic

resources. This result is consistent with Njuki's (2019) assertion that the majority of Technical and Vocational Education and Training (TVET) institutions in developing nations, such as Kenya, have long embraced traditional libraries with books as the primary information resource and have lagged behind in adopting new technologies, of which e-library is a part.

**Table 1: Information Resources Availability by Year of Study**

Information resource	Books		Newspaper		Electronic resources		Magazines		Internet	
	No	yes	no	Yes	no	Yes	no	yes	no	Yes
Year of study										
Year two	17%	83%	76%	24%	96%	4%	88%	12%	67%	33%
Year three	11%	89%	82%	18%	98%	2%	85%	15%	61%	39%
Total	14%	86%	79%	21%	97%	3%	86%	14%	65%	35%
Pearson Chi-square	0.213		0.328		0.370		0.579		0.373	

### The Information Resources Availability by Department

Table 2 below presents information on the availability of information resources by department. The results show that across the departments, the most available information resource was books, and the least available information resource was electronic

resources. This indicates the limited efforts asserted by TVETs in the digitisation of library information resources. The developing world has a larger need for knowledge in all disciplines, but public libraries' digital resources, which can meet this extensive and profound demand for information, are underdeveloped.

**Table 2: Information Resources Availability by Department**

Information resource	Books		Newspaper		Electronic resources		Magazines		Internet	
	No	yes	no	Yes	no	Yes	no	yes	no	yes
Department										
Agriculture	10%	90%	85%	15%	85%	15%	80%	20%	75%	25%
Mechanical Engineering	18%	82%	82%	18%	100%	0%	94%	6%	53%	47%
Agriculture education and extension	0%	100%	63%	38%	88%	13%	75%	25%	25%	75%
Building and civil engineering	10%	90%	90%	10%	100%	0%	100%	0%	50%	50%
Electrical and electronics	7%	93%	93%	7%	100%	0%	93%	7%	60%	40%
ICT and computer studies	6%	94%	50%	50%	89%	11%	78%	22%	67%	33%
Hospitality and tourism	26%	74%	78%	22%	100%	0%	96%	4%	57%	44%
Health and applied sciences	5%	95%	100%	0%	100%	0%	100%	0%	91%	10%
Liberal studies and business studies	19%	81%	74%	26%	99%	1%	80%	20%	66%	34%
Total	14%	86%	79%	21%	97%	3%	86%	14%	65%	35%
Pearson Chi-square	0.314		0.011**		0.026**		0.094*		0.051*	

\*\* and \* significance at 5 per cent and 10 per cent level respectively

A Pearson Chi-square test of the results indicated that there is a departmental difference in the availability of newspapers at a 5 per cent significance level. This means that there is a relationship between the department of study and the availability of

newspapers as an information resource. Newspapers cover a range of fields, ranging from agriculture to health. The coverage of these fields is usually structured on a daily thematic basis and on the basis of currently trending topics. In this regard, it is plausible

that students from fields not covered on the day's theme or not having recent trending developments, fail to find any available information related to their fields in the newspapers. Moreover, because libraries usually have inadequate copies of newspapers, the information resources end up being mostly utilised by students of fields being covered on the day's theme, leaving them unavailable to other students.

The results further show that there is a departmental difference in the availability of electronic resources at a 5 per cent significance level. This implies that there is a relationship between the department of study and the availability of electronic resources. In essence, this translates to the availability of electronic resources depending on the learner's field of study. Majority of educational institutions lack electronic material related to green skills, such as manufacturing, agriculture, and industry.

The results also indicated that there is a departmental difference in the availability of magazines at a 10 per cent significance level. The main issues affecting periodicals collection management in libraries include the availability of technology, the financial constraints placed on libraries, and the way patrons seek information. Thus, some departments may have limited magazines available due to limited budgets to

subscribe to sufficient magazines for all departments and the current trend of learners and faculty accessing periodicals online. According to the results, there was a departmental difference in internet availability. This means that the department of students' study was related to the availability of the library's internet. Different disciplines in TVETs have different program structures and schedules. While some disciplines have predominantly theoretical classes, some disciplines like agriculture, health and applied sciences have significantly more hours of practical lessons, limiting free time during the day when learners can utilise the library's internet. Moreover, programs in health and applied sciences often have practical lessons outside the college, thus making the library's internet unavailable to the learners.

### Frequency of Visiting the Library

The results below in Figure 3 showed that most TVET students (65.5%) visit libraries once in a while. The large number of students not physically visiting libraries is not only synonymous with academic libraries in Kenya but also globally. Like other nations, Kenya's academic libraries face challenges from rapidly evolving ICTs, shifting user demands, and an increase in primarily off-campus students (Chilimo, 2014). These factors have resulted in a decline in the number of physical users.

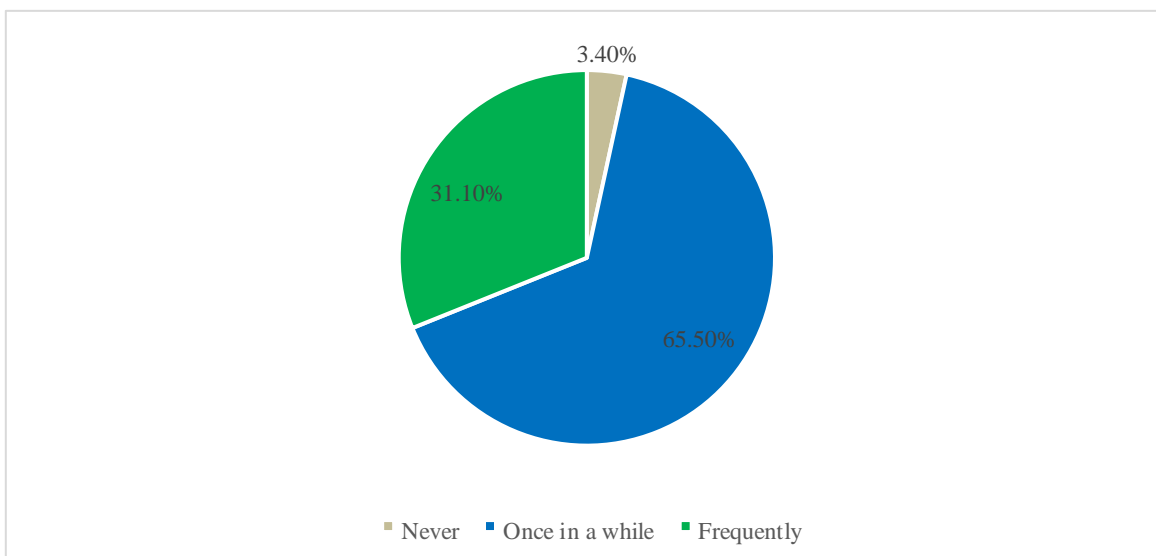


Figure 3: Frequency of Visiting the Library

### Reasons for Never Visiting the Library

The study probed the reasons for never visiting libraries by students through a thematic analysis. The

two themes that emerged were poor internet and inadequacy of the library's print information resources. According to the results, in Table 3 below, all the students (100%) who never visited the library cited poor internet as the reason behind their non-user behaviour. Additionally, 71 per cent of the non-users cited their non-user behaviour to challenges with the

library's print information resources. Yebowaah (2017) states that more students than ever before are depending on the internet for their academic needs; as a result, the availability of the internet and electronic resources may have a detrimental impact on students' use of the library at an institution.

**Table 3: Reasons for Never Visiting the Library**

		Frequency	Percent
The library has poor internet	no	0	0 %
	yes	7	100%
	Total	7	100%
Challenges with the library's print information resources	no	2	29%
	yes	5	71%
	Total	7	100%

### Reasons for Visiting the Library only once in a while

Table 4 below shows the thematic analysis results of reasons for only visiting the library once in a while, which was the modal library visiting behaviour among the learners. The results show that the most prevalent reason for only visiting the library occasionally was not having enough time to visit more. TVET programs in

Kenya are designed to provide a more hands-on training approach. In this regard, most TVET courses have theoretical classes and a significant number of practical classes. Resultantly, this limits the number of hours the learners have during the day to visit the library.

**Table 4: Reasons for Visiting the Library only once in a while**

		Frequency	Percent
I don't have enough time to visit more	no	80	59%
	yes	55	41%
	Total	135	100%
I stay far away from the library	no	131	97%
	yes	4	3%
	Total	135	100%
I only need to go to the library to get the specific information that I need	no	89	66%
	yes	46	34%
	Total	135	100%

### Reasons for Visiting the Library Frequently

Table 5 below shows the thematic analysis results of reasons for frequently visiting the library. The themes that emerged from the analysis include the availability of wide knowledge in academic programs, the availability of general knowledge in many fields, and a conducive environment for revising for exams. The

most predominant reason (88%) for visiting the library was the availability of general knowledge in many fields. This implies that the frequent user behaviour is attributed to the availability of information outside the learner's immediate program of study. Libraries have maintained their relevance by evolving into user-focused institutions that provide demanded services,

including information needed to conduct the currently | popular multi-disciplinary research (Tikekar, 2009).

**Table 5: Reasons for Visiting the Library Frequently**

		Frequency	Percent
The library has a wide-ranging knowledge in my field of study	No	34	53%
	yes	30	47%
	Total	64	100%
The library has general knowledge on many fields	No	8	12%
	yes	56	88%
	Total	64	100%
The library has a conducive environment to revise for exams	No	41	64%
	Yes	23	36%
	Total	64	100%

### Purpose of Library Visits by Frequency

Table 6 below presents the cross-tabulation results of the purpose of library visits by frequency of library visits. The results indicate that the ranking of the

purpose of library visits, ranked from most considered to least considered, is as follows: research, revising for exams, obtaining general information, borrowing books and leisure.

**Table 6: Purpose of library visits by frequency**

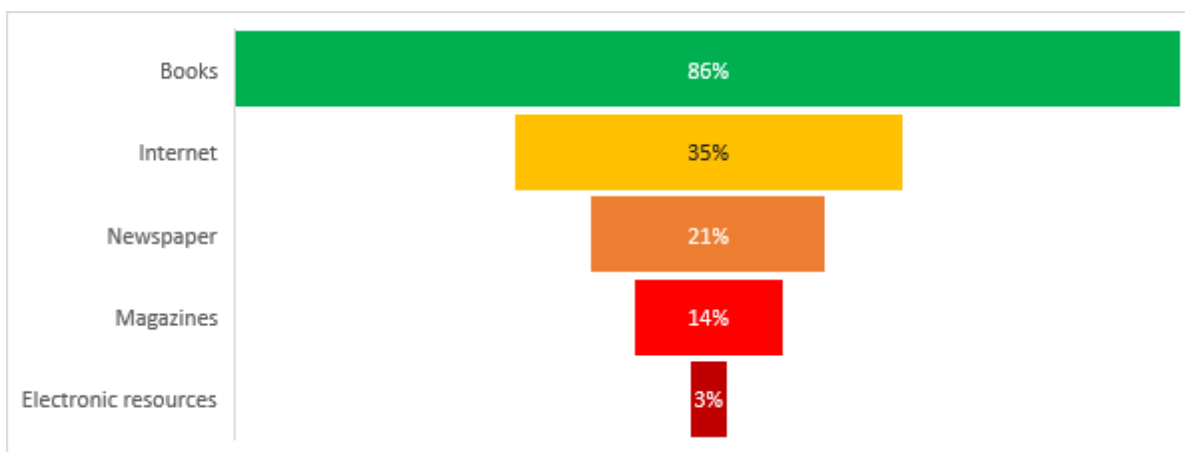
Purpose of visit	Obtaining general information		Research		Leisure		Revising for exams		Borrowing of books	
	No	yes	No	yes	no	yes	No	yes	No	yes
Frequency of visits	No	yes	No	yes	no	yes	No	yes	No	yes
Never	29%	71%	57%	43%	86%	14%	43%	57%	86%	14%
Once in a while	76%	24%	33%	67%	97%	3%	65%	35%	91%	9%
Frequently	70%	30%	39%	61%	97%	3%	64%	36%	91%	9%
Total	73%	27%	36%	64%	97%	3%	64%	36%	91%	9%
Pearson Chi-square	0.019**		0.361		0.270		0.486		0.890	

\*\* Significant at 5 per cent significance level

The Pearson Chi-square test conducted on the cross-tabulation indicated that there was a significant frequency of visit difference in obtaining general information. This means that the intention of obtaining general information by learners was related to their frequency of visiting the library. Libraries have continued to be relevant, as evidenced by the volume

of patrons, by offering services that are in demand, such as the general knowledge required to carry out the increasingly common multi-disciplinary study (Tikekar, 2009).

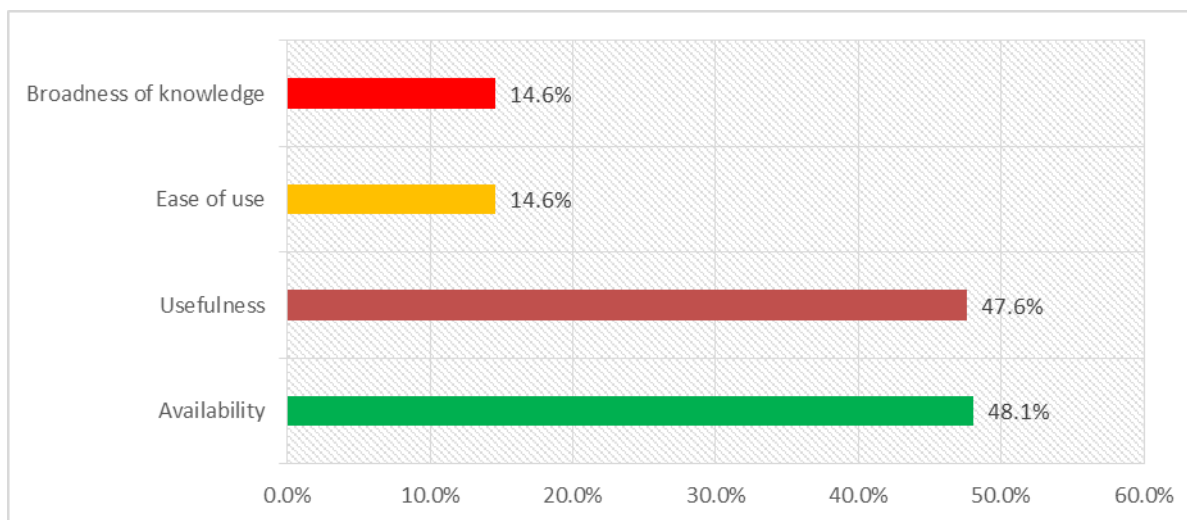
### Information Resources Used



**Figure 4: Information Resources Used**

According to Figure 4, above, the most used (86%) library information resource was books. Reasons for use of the library are shown in Figure 5. According to the results, the choice of a library information resource is predominantly (48%) guided by the availability of the resource. According to Njuki (2019),

the majority of Technical and Vocational Education and Training (TVET) institutions in developing countries, like Kenya, have long embraced traditional libraries with books as the primary information resource. This explains why books are the most commonly used library information resource in TVET libraries.



**Figure 5: Reasons for Use of the Library**

Figure 6 below shows that most of the learners (41.3%) found information resources somewhat accessible. This implies that most of the learners are able to obtain the needed information from the available information resources. This indicates that academic librarians and information professionals have struck a

balance, taking into account the subject specifics within the institution, between particular research and information needs and a useful collection of information resources to meet the needs of the institution and their users.

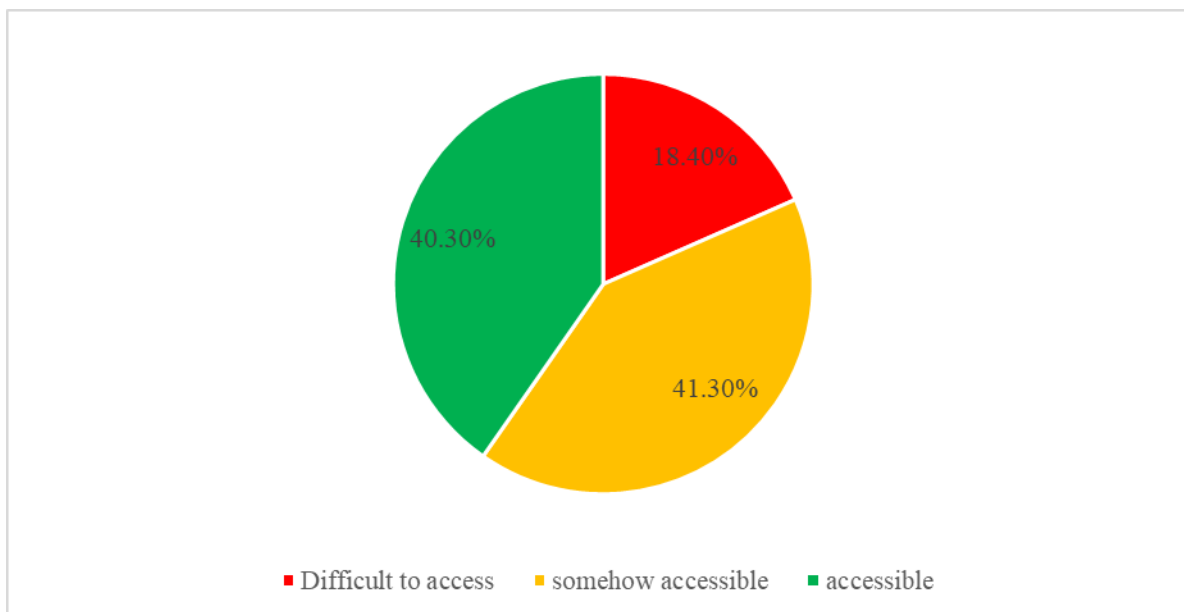


Figure 6: Accessibility of Used Information Resources

Table 7 below displays cross-tabulation results of information resource accessibility by type of information resource used. The results indicate that there is a significant accessibility difference in the use of books at a 5 per cent significance level. This means that there is a relationship between the ability to locate and utilise books in the library and the use of books as information resources. This study is consistent with that of Olorunfemi and Ipadeola (2021), who discovered that undergraduate students'

inability to locate certain information resources in the library is a barrier to their use of those resources. The results also found a significant accessibility difference in the use of the internet at a 10 per cent significance level. This finding implies that the ability of learners in utilising the internet for learning is related to using the internet as an information resource. ICT skills of undergraduates impact their effectiveness in utilising internet-based information resources.

Table 7: Accessibility of used information resources

Information resource	Books		Newspaper		Electronic resources		Magazines		Internet	
	no	yes	no	yes	No	yes	no	yes	no	Yes
Difficult to access	24%	76%	79%	21%	95%	5%	90%	11%	53%	47%
Somehow accessibility	17%	84%	82%	18%	99%	1%	91%	9%	61%	39%
Accessible	7%	93%	75%	25%	95%	5%	81%	19%	74%	27%
Total	14%	86%	79%	21%	97%	3%	86%	14%	65%	35%
Pearson Chi-square	0.038**		0.480		0.334		0.146		0.058*	

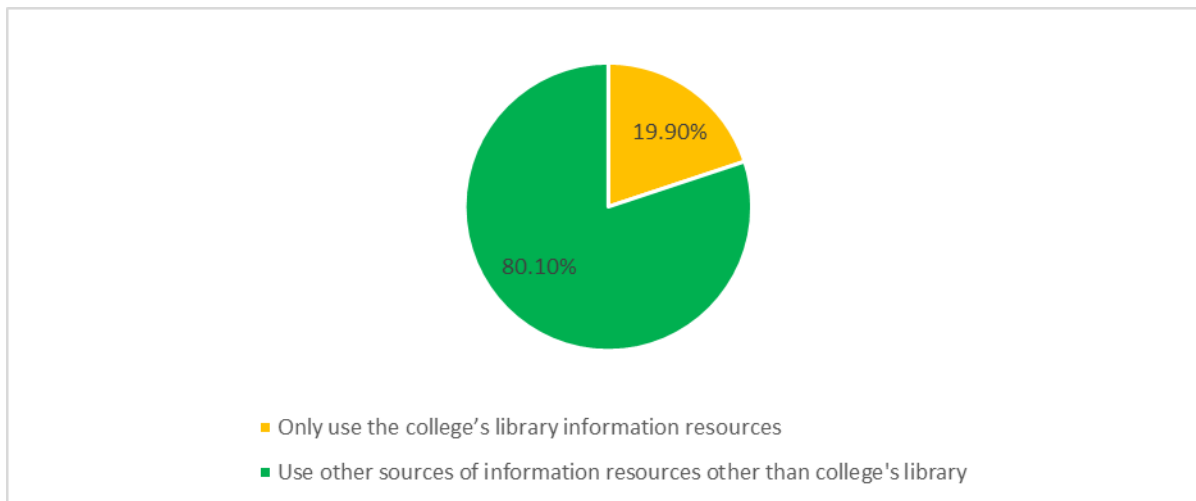
\*\* , \* significant at 5 per cent and 10 per cent significance level

**Source of Information Resources Used**

As shown in Figure 7 below, the majority of the learners (80.1%) utilise information resources other than those provided by the college's library. This is

explained by many detractors constantly questioning the use of academic libraries in the modern period, claiming that "you can find everything on the internet"

or that "the internet has taken over the job of the library, therefore the library is no longer necessary."



**Figure 7: Source of Information Resources Used**

## CONCLUSION AND RECOMMENDATIONS

**Conclusion:** The results indicate that most TVET learners visit the library only occasionally, a pattern largely attributed to packed timetables that limit the time available for library use. Books emerged as the most frequently used resource, whereas electronic resources remain underutilised. In addition, the availability of resources was identified as the primary factor influencing students' choices of materials, emphasising the importance of ensuring adequate and accessible collections.

**Recommendations:** The study revealed that many students visit the library only occasionally due to packed timetables; therefore, libraries should adopt more flexible opening hours, including evenings and weekends. Institutions should also strengthen remote access options so that students can access electronic resources at their convenience, without being restricted by physical library schedules.

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