

# **Students' Online Usage Patterns of Electronic Resources at St. Augustine University of Tanzania, Mwanza Campus: Evidence to Inform University Administration**

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## **Abstract**

**Purpose** – This study examines undergraduate students' online usage patterns of electronic resources (e-resources) at St. Augustine University of Tanzania (SAUT), Mwanza Campus, with the aim of generating evidence-based insights to support university administration in improving access, utilisation and management of these resources.

**Design/methodology/approach** – A quantitative, descriptive cross-sectional survey design was employed. Data were collected via a structured questionnaire from 49 undergraduate students in the Faculty of Social Sciences and Communication (Mass Communication, Economics, and Public Relations and Marketing). Analysis was conducted using SPSS, encompassing descriptive statistics, crosstabulations and inferential techniques.

**Findings** – Almost all respondents (95.9%) owned a smartphone or computer, and the majority (93.9%) lived off-campus. Library visits were relatively frequent, with 44.9% visiting daily. Students reported substantial use of both subscribed and alternative e-resources, with JSTOR, EBSCO and PDF Drive among the most frequently accessed. The official university website was the primary search portal. Key challenges implied by the patterns include remote-access barriers, variable information literacy and competition from social media.

**Practical implications** – University administration should prioritise robust remote-access infrastructure, sustained information literacy training integrated into curricula, clearer promotion of subscribed databases, and regular monitoring of usage statistics combined with student feedback. Gender- and department-responsive approaches are also recommended.

**Originality/value** – The study provides campus-specific, gender- and department-disaggregated empirical evidence on e-resource usage among undergraduates at SAUT Mwanza, addressing a local gap in the Tanzanian higher-education literature and offering actionable guidance for resource-constrained African universities.

**Keywords:** Electronic resources, e-resource usage, undergraduate students, university libraries, Tanzania, higher education, information literacy, remote access

## **1. Introduction**

Universities worldwide have invested heavily in electronic resources—e-journals, e-books, online databases and institutional repositories—to support teaching, learning and research in the digital age (Mungwabi, 2023; Mubofu, 2026). At St. Augustine University of Tanzania (SAUT), Mwanza Campus, substantial institutional resources have been devoted to acquiring and maintaining access to these materials. Yet empirical evidence on how students actually engage with them remains limited.

Little is known about the frequency and extent of students' online access, preferred resource types, primary purposes of use, and the technological, infrastructural, skills-related and institutional factors that shape usage (Shikali et al., 2025). Barriers that hinder effective utilisation are similarly under-documented. Without such evidence, university administration faces constraints in allocating resources, upgrading infrastructure, designing user training and formulating supportive policy.

This study therefore investigates students' online usage patterns of e-resources at SAUT Mwanza Campus. Its principal objective is to generate actionable, evidence-based insights that can assist the University Administration in enhancing access, utilisation and management of electronic resources.

## **2. Literature Review**

### **2.1 Usage Patterns, Frequency and Purposes**

Empirical studies across Tanzanian universities indicate varying levels of e-resource awareness and usage. Research at Hubert Kairuki Memorial University found that while many patrons were aware of available electronic resources, a notable minority lacked awareness (Mubofu, 2026). Primary purposes commonly include academic research, assignment completion and professional development. At the University of Dar es Salaam, students frequently access library website resources, with preference for open-access repositories and e-books (Mungwabi, 2023). Students tend to combine institutional databases with free or alternative platforms (Mollet and Mwantimwa, 2019).

### **2.2 Factors Influencing E-resource Usage**

Literature identifies technological (device ownership, internet reliability), infrastructural (campus network, remote access), skills-related (information literacy, searching competence), and institutional (awareness, training, library support) factors. Information literacy training, perceived usefulness and lecturer influence are important facilitators in Tanzanian studies (Mwantimwa et al.; Shikali et al., 2025).

### **2.3 Challenges and Barriers**

Common barriers include unreliable internet, high data costs, limited off-campus access to subscribed resources, inadequate searching skills, insufficient training, power interruptions and low awareness of databases. These contribute to under-utilisation even where substantial subscription investments exist (Mubofu, 2026; Mungwabi, 2023).

### **2.4 Research Gap**

While a growing body of work exists on e-resource usage in Tanzanian universities, relatively few studies have focused specifically on undergraduate students at SAUT Mwanza Campus with gender- and department-disaggregated patterns linked to administrative decision-making. This study addresses that gap.

## **3. Methodology**

A quantitative, descriptive cross-sectional survey design was adopted. The study was conducted at SAU

T Mwanza Campus and targeted undergraduate students in the Faculty of Social Sciences and Communication (Mass Communication, Economics, and Public Relations and Marketing).

A total of 49 usable questionnaires were returned. Sampling combined purposive selection of the three departments with convenience sampling within those departments. The sample comprised 27 males (55.1%) and 22 females (44.9%). Data were collected through a structured, self-administered questionnaire covering demographics, device ownership, library visits, social-media time, websites used and frequently accessed electronic resources. Content validity was strengthened through alignment with study objectives and expert review.

Data were coded, entered, cleaned and analysed using SPSS. Descriptive statistics (frequencies, percentages and crosstabulations) and planned inferential techniques (chi-square tests, correlation and multiple regression) were employed. Ethical protocols included voluntary participation, informed consent, anonymity and confidentiality; data were used solely for academic purposes.

## 4. Findings

### 4.1 Demographic Profile

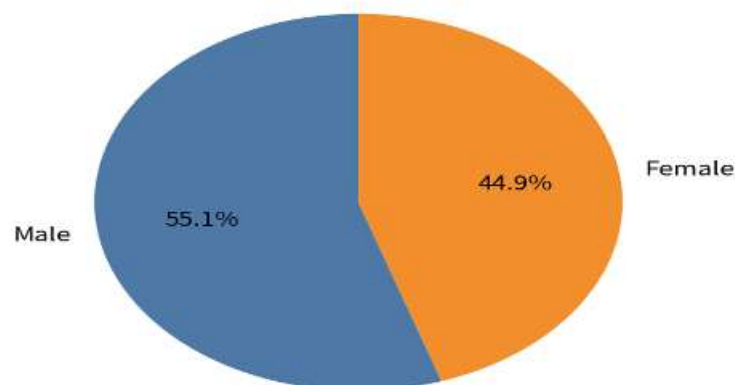
The sample was slightly male-dominated (55.1% male). Mass Communication contributed the largest share of respondents (38.8%), followed by Public Relations and Marketing (34.7%) and Economics (26.5%). The Lake Zone accounted for 40.8% of respondents, reflecting the campus catchment area. Christians constituted 81.6% of the sample.

**Table 1: Gender of Respondents**

| Gender       | Frequency | Percent      | Valid %      |
|--------------|-----------|--------------|--------------|
| Male         | 27        | 55.1         | 55.1         |
| Female       | 22        | 44.9         | 44.9         |
| <b>Total</b> | <b>49</b> | <b>100.0</b> | <b>100.0</b> |

Source: Field data (N = 49)

**Figure 1: Gender Distribution of Respondents (N=49)**

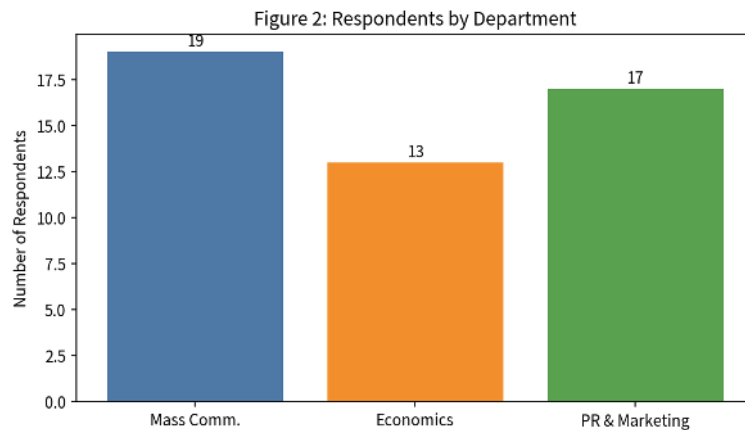


**Figure 1: Gender Distribution of Respondents (N = 49)**

**Table 2: Gender of Respondents by Department**

| Gender       | Mass Comm.        | Economics         | PR & Marketing    | Total     |
|--------------|-------------------|-------------------|-------------------|-----------|
| Male         | 11 (40.7%)        | 6 (22.2%)         | 10 (37.0%)        | 27        |
| Female       | 8 (36.4%)         | 7 (31.8%)         | 7 (31.8%)         | 22        |
| <b>Total</b> | <b>19 (38.8%)</b> | <b>13 (26.5%)</b> | <b>17 (34.7%)</b> | <b>49</b> |

Source: Field data (N = 49)

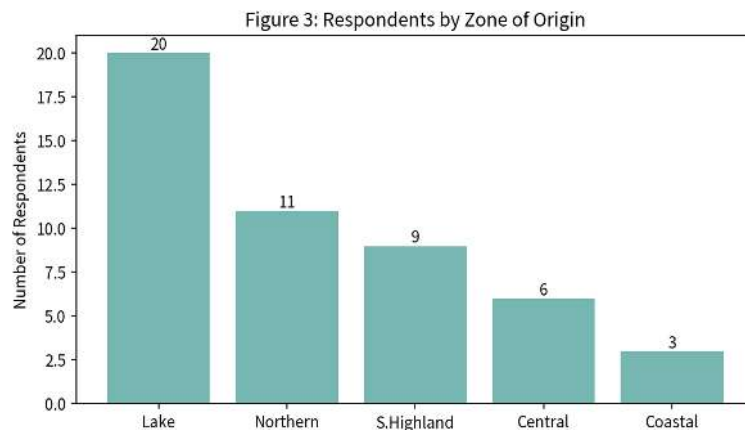


**Figure 2: Respondents by Department**

**Table 3: Respondents by Zone of Origin**

| Zone  | Lake  | Northern | S.Highland | Central | Coastal |
|-------|-------|----------|------------|---------|---------|
| Count | 20    | 11       | 9          | 6       | 3       |
| %     | 40.8% | 22.4%    | 18.4%      | 12.2%   | 6.1%    |

Source: Field data (N = 49)



**Figure 3: Respondents by Zone of Origin**

The Higher Education Students' Loans Board was the primary funding source (46.9%), particularly among female students (59.1%). Nearly all respondents (93.9%) lived off-campus, and 95.9% owned a

smartphone or computer (or both). These patterns have direct implications for remote access to e-resources and the design of support services (Mollel and Mwantimwa, 2019).

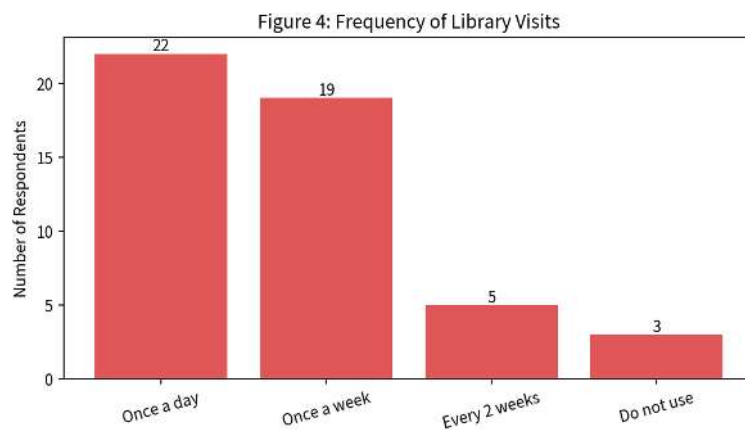
## 4.2 Library Usage and Social Media Engagement

Library visits were relatively frequent: 44.9% of students visited once a day and 38.8% once a week. A gender difference was evident—63.6% of females visited daily compared with 29.6% of males.

**Table 4: Frequency of Library Visits**

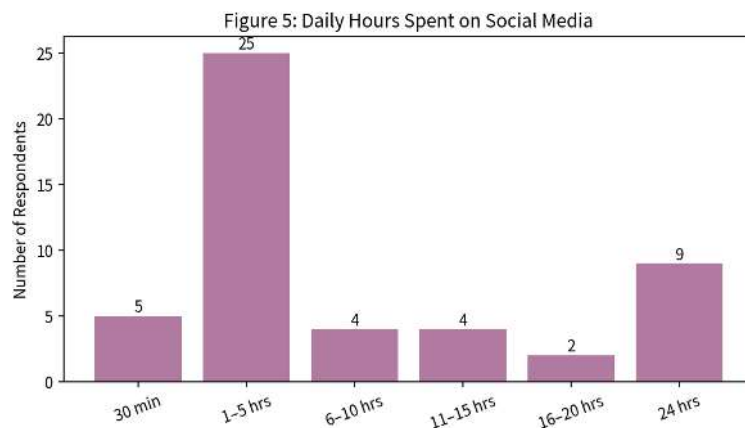
| Frequency     | Male | Female | Total | %     |
|---------------|------|--------|-------|-------|
| Once a day    | 8    | 14     | 22    | 44.9% |
| Once a week   | 15   | 4      | 19    | 38.8% |
| Every 2 weeks | 3    | 2      | 5     | 10.2% |
| Do not use    | 1    | 2      | 3     | 6.1%  |

Source: Field data (N = 49)



**Figure 4: Frequency of Library Visits for Learning**

Daily time spent on social media or social spaces showed a modal category of 1–5 hours (51.0%). A notable minority (18.4%) reported near-continuous engagement (24 hours). This pattern highlights potential attentional competition with academic e-resource use (Mungwabi, 2023).



**Figure 5: Daily Hours Spent on Social Media**

## 4.3 Electronic Information Sources and Websites

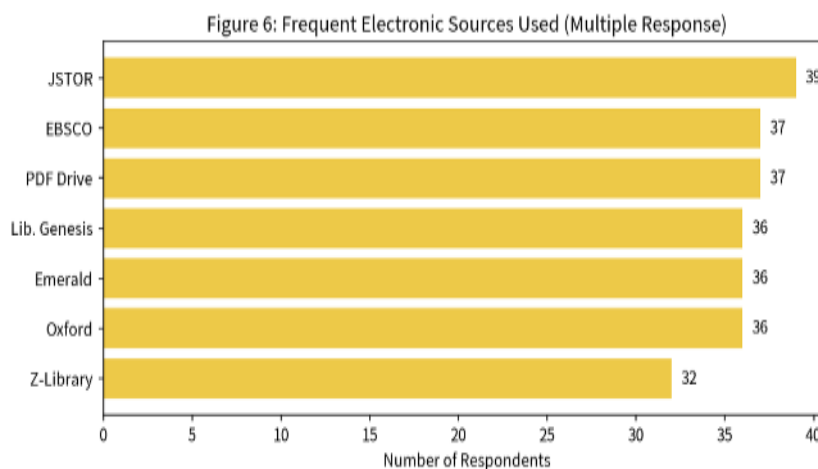
Multiple-response data revealed high usage of both subscribed and alternative platforms. JSTOR was the

most widely used source (39 respondents), followed by EBSCO and PDF Drive (37 each). Library Genesis, Emerald and Oxford resources were each used by 36 respondents, and Z-Library by 32. Usage rates were high across both genders, consistent with patterns observed in other Tanzanian universities (Mubofu, 2026; Shikali et al., 2025).

**Table 5: Frequent Electronic Sources Used (Multiple Response)**

| Electronic Source | Male (n) | Male % | Female (n) | Female % |
|-------------------|----------|--------|------------|----------|
| JSTOR             | 21       | 77.8%  | 18         | 81.8%    |
| EBSCO             | 20       | 74.1%  | 17         | 77.3%    |
| PDF Drive         | 20       | 74.1%  | 17         | 77.3%    |
| Library Genesis   | 20       | 74.1%  | 16         | 72.7%    |
| Emerald           | 18       | 66.7%  | 18         | 81.8%    |
| Oxford            | 21       | 77.8%  | 15         | 68.2%    |
| Z-Library         | 16       | 59.3%  | 16         | 72.7%    |

Source: Field data (N = 49). Percentages based on respondents within each gender.



**Figure 6: Frequent Electronic Sources Used (Multiple Response)**

The official university website ([www.saut.ac.tz](http://www.saut.ac.tz)) was the most frequently cited search portal (87.8%), followed by the free e-book site [www.ebook.org](http://www.ebook.org) (69.4%) and the university library portal (65.3%). Female respondents reported higher proportional use of the library portal and [ebook.org](http://www.ebook.org) than their male counterparts.

## 5. Discussion

The findings indicate meaningful student engagement with e-resources, underpinned by near-universal device ownership and regular library contact. Students actively combine institutional databases with alternative platforms, suggesting both awareness of subscribed content and pragmatic recourse to freely available sources. This dual-use pattern is consistent with observations at other Tanzanian universities

(Mungwabi, 2023; Mubofu, 2026).

The predominance of off-campus residence (93.9%) underscores the critical importance of reliable remote-access infrastructure—a challenge repeatedly highlighted in the East African literature (Mollel and Mwantimwa, 2019; Shikali et al., 2025). High social-media engagement points to attentional competition that may dilute focused academic use of e-resources. Gender differences in library visit frequency and certain website preferences suggest the value of differentiated outreach strategies.

These patterns align with broader Tanzanian and East African literature that highlights infrastructural constraints, skills gaps and the dual use of subscribed and open resources. The relatively small, faculty-specific sample limits generalisability, yet the disaggregated data provide a solid empirical foundation for campus-level decision-making.

## **6. Conclusions and Recommendations**

Students at SAUT Mwanza Campus demonstrate substantive engagement with electronic resources, supported by high device ownership and frequent library contact. They utilise both subscribed databases and alternative platforms, while off-campus residence and substantial social-media time highlight infrastructural and attentional challenges.

### **6.1 Recommendations for University Administration**

- Strengthen promotion and orientation on the library website and subscribed databases, with explicit guidance on off-campus access.
- Integrate sustained information literacy and database-searching training into curricula.
- Prioritise robust remote-access infrastructure given that over 90% of students live off-campus.
- Monitor usage statistics of major subscribed resources and combine them with regular student feedback.
- Adopt gender-responsive and department-specific outreach strategies.

### **6.2 Suggestions for Further Research**

Future studies should enlarge the sample, include additional faculties and postgraduate students, employ mixed-methods designs, and incorporate objective usage logs from library systems.

By addressing remote-access barriers, strengthening information literacy and improving the visibility of library services, the University Administration can enhance the return on investment in e-resources and better support students' academic success.

## **References**

1. Mollel, M. and Mwantimwa, K. (2019), related studies on e-resource utilisation in Tanzanian institutions.
2. Mubofu, C. (2026), "Use patterns, purposes, and frequency of electronic resources among library patrons", *The Serials Librarian*.
3. Mungwabi, H. (2023), "Assessment on usage of the library website resources by students at the University of Dar es Salaam".
4. Mwantimwa, K. et al., works on information literacy and e-resource factors in Tanzanian universities.
5. Shikali, J.C., Muneja, P.S. and Kassim, M. (2025), "Scholarly information source access and use by undergraduate students in Tanzania".

6. Additional studies on e-resource challenges and ICT infrastructure in Tanzanian and East African higher-learning institutions.