

E-Books Management in Academic Libraries: A Study of Select Higher Education Institutions in North-East India

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Abstract

The paper explores the practices for managing e-book collections in select Higher Education Institutions (HEIs) in North-East India. It examines the various stages of e-books management in libraries, including collection development policies, budget, discovery, evaluation and selection, access, and licensing models. The study adopted a survey method and included four different categories of institutes of higher education viz. Central, State, Private, and Institute of National Importance. The population of this study was the professionals dealing with e-books. The study's findings show that university libraries have incorporated e-books in their collection but a proper management process is lacking. Several challenges related to e-books and their management were identified, including inadequate funding, complex licensing agreements, navigation problems, limited availability, issues with access and platform, etc. The study suggested a need for collection development policies for e-books and adopting effective management frameworks for e-book management.

Keywords: Collection Development, E-book, Electronic Resource Management, Licensing Models, North-East India

1. Introduction

The evolution of emerging technologies has completely changed the conventional library system, changing the landscapes of libraries and their resources. There has occurred a dramatic shift in the formats in which information is offered to library users (Khan & Bhatti, 2024). Generally known by their abbreviated term e-book, are one of the additions to the resources in libraries that evolved with the advent of technology. According to the Oxford English Dictionary, the term 'e-book' is defined as "an electronic format of a particular book that can be read either on a dedicated device, a computer screen, or over the Internet". The term 'e-book' seems to evolve regularly as enhancements to technology regarding digital content are made (Zadravec et al., 2014).

Academic libraries are at the forefront of adopting and accepting e-books due to their various advantages over their print counterparts. Physical books will continue to play a role in research collections for the foreseeable future, for libraries e-books have distinct advantages in terms availability, accessibility and space management (Wells & Sallenbach, 2023). E-books have the advantage of being more current, and sometimes more comprehensive than comparable print equivalents. Even if they are not going to immediately substitute the print books, surely e-books have already emerged as a complementary to the print resources. There has been rapid growth in the use of e-books, the Annual Report of the Association of American Publishers (AAP) has reported the growth of e-book revenue of \$1.97 billion in the year 2021 (AAP, 2022).

There has been a proliferation of information in both print and electronic formats, posing more challenges to the library in terms of organization, storage, dissemination, and use of information. Libraries invest a huge chunk of their budget for e-resources including e-books. E-resources necessitate precise management strategies to procure, store, and provide access, as well as make the user aware of the resources that do not exist physically. E-book management in a library involves several key aspects to ensure that the collection is accessible, up-to-date, and meets the needs of the patrons. There are several facets in the management of e-books like Collection Development, Cataloguing and Metadata, Access and Authentication, Licensing and Legal Compliance, Platform and Technology Management, User Training and Support, Usage Statistics and Analytics, Promotion and Outreach, Evaluation and Weeding, Preservation and Long-Term Access, etc.

There are few studies regarding e-book management with all the studies carried out in developed countries, while no study has been undertaken to investigate the practices of e-book management in developing countries

such as India where libraries have adopted e-books. Therefore, this study is conducted to fill this gap by examining the e-book management practices adopted by the institutes of higher education in North-East India.

1.2 Evolution of E-books

Along with the other electronic resources of the library like e-journals and online databases, e-books are also one of the important resources. Examining the dynamic history of e-books is necessary in order to discuss their present and future trends. The modern e-book industry has been influenced by numerous historically significant events. Audiobook publishers and suppliers are responsible for the establishment of a nonprint book industry, for which e-book publishers are grateful. The U.S. Congress established the Talking Book Program in 1931 and produced the first talking books in partnership with the American Foundation for the Blind. This program was called "Books for the Adult Blind Project." The American Foundation for the Blind developed the first talking books in 1932. The audiobook industry grew as a result of the transition from vinyl records to cassette tapes in the 1960s and 1970s, which made libraries a source of nonprint books. The transition to CDs and the subsequent release of the iPod and other MP3 players in the 1990s and early 2000s expanded access to audiobooks.

Since at least 1945, when Vannevar Bush urged scientists to shift their focus from war to the goal of making the vast body of human knowledge useful and accessible, the idea of computerised systems to improve how people acquire, retain, and analyse information has been studied. He outlines a potential device, "memex," for individual use that would serve as a mechanised private library and archive (Bush, 1945). The term "electronic book" was first used in 1968 by Brown University professor Andries Van Dam while he was researching early hypertext systems (Gardiner and Musto, 2010). At the same time, Alan Kay created the "Dynabook," a laptop computer concept that he intended to be used for book reading (Ardito, 2000).

Project Gutenberg was founded in 1971. The effort to make public domain titles available to the general public at no cost was led by Michael Hart (Ardito, 2000). Today, there are over 75,000 titles. The idea of creating and sharing information grew considerably in the 1990s with the development of the Internet and World Wide Web. Self-publishing emerged as a result of this. It quickly became clear that not all internet resources were reliable or beneficial, but it was still an amazing phenomenon that people could independently publish and share their works with a limitless audience.

When early reading devices like the Rocket and SoftBook readers were developed in 1998, e-book awareness skyrocketed (Gibbons, Peters, and Bryan, 2003). While Google Books was formally introduced in 2004, netLibrary began offering its Internet-based e-book service for libraries in 1999. The publishing industry was forced to take e-books more seriously after the sales of early handheld devices and e-book collections. In 2007, Amazon released the first iteration of the Kindle. When the Kindle was first released, it cost \$399 and offered access to about 90,000 e-book titles. Since then, companies like Sony, Barnes & Noble, and others have followed Amazon's lead and released their own portable e-book readers. The iPad, a multipurpose tablet computer with e-books available through the iBookstore, was introduced by Apple in 2010. Despite not being an e-book reader specifically, this device, along with well-known apps and e-book collections, has created a lot of excitement by bringing in the age of multipurpose mobile devices. New platforms like Kobo has also evolved and gained popularity due to its popular range of e-books.

The popularity of e-books is not only confined to the e-book readers, but now almost all prominent publishers offer e-books for individuals and libraries through their platforms. Publishers provide e-books that encompass a variety of features and serve varied audiences, including fiction, non-fiction, academic, and educational genres, making them an effective and innovative medium in today's digital landscape.

1.3 Different Models of E-book Acquisition

There are many different e-book business models offered by different publishers, and each has pros and cons. It can be challenging to determine which models provide the best value. In academic, library, and retail settings, e-books are purchased using a variety of business models. Each model establishes the buyer's or institution's access, ownership, and value of the content. The primary business models for purchasing e-books are:

- a) *One-Time Purchase (Perpetual Access)*
The library pays a one-time price to gain access to the e-book for all time. This model reflects traditional print book ownership.
- b) *Subscription (Lease)*
For a regular fee (monthly or annually), access to a collection or set of e-books is provided. Titles are not owned because access expires when the subscription does.
- c) *Patron-Driven Acquisition (PDA)/Demand-Driven Acquisition (DDA)*
E-books are catalogued, and libraries only incur fees when a patron uses (views or downloads) an item. Real usage determines whether to buy or lease, maximising cost-effectiveness.
- d) *Evidence-Based Acquisition (EBA)*

The library pays a fee up front to have access to a sizable collection for a predetermined amount of time. Up to the initial payment amount, usage data is used at the end of the period to determine which titles should be retained for permanent access.

e) *Short-Term Loan/Access*

Libraries pay less for short-term (one day, seven days) e-book access. This model is frequently applied to PDA/DDA methodologies.

f) *Individual Title Purchase*

Individual e-books are purchased outright by individuals or organizations for their own use or ongoing institutional access. Prevalent in online marketplaces such as Kobo, Apple Books, Amazon, and others.

g) *Purchase of Bundled Collections*

Libraries purchase access to a pre-selected collection of e-books, typically arranged by collection, publisher, or subject either subscription-based or perpetual.

h) *Pay-Per-Use/Pay-Per-View*

Instead of buying or subscribing to the full book, users pay for each use or chapter/article accessed.

i) *Open Access*

Users can read, download, and distribute e-books for free sponsored by governments, organizations, grants, or authors.

These models support a range of budgetary, access, and collection development needs while providing libraries with flexibility. The size of the organization, user demand, financial limitations, and licensing terms all influence the model that is selected.

1.4 Complexities of E-books Acquisition

The acquisition of e-books presents several complexities that differ significantly from traditional print book acquisition. Some of the key issues are discussed below:

A. *Licensing Models and Access Restrictions*

E-books are rarely owned outright by libraries or individuals, in contrast to print books. Rather, licenses with different limitations are frequently used to access them:

- *Licenses for single users versus multiple users:* While some e-books only allow one user to access them at a time, others let several users access them at once.
- *Limited loans:* Some licenses only permit a certain number of checkouts before the library has to buy the title again.
- *Subscription models:* Continuous payments are required for access, and if subscriptions expire, content may be lost.

B. *Digital Rights Management (DRM):*

DRM is frequently used by publishers and vendors to stop illegal copying and sharing, which can limit acceptable uses like printing, downloading, and sharing within an institution or class. Users may become frustrated if DRM interferes with compatibility with various reading devices or software.

C. *Vendor and Platform Fragmentation:* Libraries frequently have to oversee a number of vendors and platforms, each with unique technical specifications, usage data, and interfaces. Confusion or unequal access result from this fragmentation, which also makes backend management and user experience more difficult.

D. *Cost and Pricing Structures:*

When priced under institutional licenses or perpetual access, e-books may be more costly than print copies. Costs are not always clear, and price models can change suddenly. Libraries may be forced to buy unnecessary materials as a result of bundling, which is the practice of combining popular titles with less popular ones.

E. *Long-term Access and Preservation:*

If a license expires, the platform goes down, or the publisher removes the content, e-books that were previously accessible through licenses might not be accessible. Libraries are not always able to ensure continuous availability or successfully preserve e-books for future generations, unlike print materials.

F. *Metadata and Discovery Issues:*

Vendors' inconsistent or subpar metadata may affect how easily e-books can be found in search engines or library catalogues. Catalogue systems might not immediately reflect updates, corrections, or modifications to e-book records.

G. *Legal and Copyright Issues:*

Interlibrary loan, course reserves, and fair use may be impacted by licensing agreements that place more stringent restrictions than print book copyright laws permit. Multinational acquisitions may be made more difficult by differences in international copyright and licensing laws.

H. *Accessibility:*

Accessibility features can differ significantly between platforms, and not all e-books are completely accessible for users with disabilities. Screen reader or other assistive technology compatibility may be broken by certain DRM or platform selections.

Taken together, these issues make purchasing an e-book a difficult and continuous process from a legal, financial, and technical standpoint. Compared to traditional print acquisitions, e-book acquisitions offer fewer assurances regarding permanence and user rights.

2. Review of Literature

E-book management is a crucial aspect of modern academic libraries, affecting how e-books are acquired, catalogued, accessed, and maintained. This literature review explores various dimensions of e-book management, including strategies, systems, challenges, and best practices. This review, which examines scholarly articles and books, aims to provide a comprehensive understanding of the current state of e-book management and its implications for libraries and other institutions.

Managing e-book collections presents several challenges, including the selection, licensing, acquisition, and ongoing management of digital resources. Walters (2013) discusses these issues, emphasizing the complexities involved in maintaining a balanced and accessible e-book collection. The study highlights specific challenges related to digital rights management and the impact of e-books on user behavior.

Vasileiou et al. (2012) outlined an e-book management framework that involves different stages of e-book management in academic libraries, starting from the collection development policy to budget allocation, discovery, evaluation, selection, license negotiations, cataloging, and delivery. This comprehensive approach addresses the entire lifecycle of e-book management, highlighting the importance of each stage in ensuring effective resource utilization.

The collection development policy continues to serve as the foundation for purchasing print books, but e-book purchases frequently receive less support and appear to have become part of the disorganized, frequently unstable, and transient network of electronic resources. Academic libraries have adjusted their spending and investments to better suit the needs of their evolving user communities and growing demand for "e." However, the policies that form the foundation of library investments have not changed enough to take these updated investment changes into account (Lukes et al., 2016). According to the study by Armstrong and Lonsdale (2005), academic librarians and publishers face difficulties when choosing and acquiring e-books due to a lack of out-of-print titles, worries about quality control, and problems with licensing and cost. They identified a need for better bibliographical control and discovery tools for e-books, as well as concerns about the lack of standardization of e-book metadata records.

The e-book landscape in academic libraries highlights the need for standardized cataloguing practices and challenges in integrating large record sets from multiple providers (Wu & Mitchell, 2010). Chen (2024) compared MARC records from GOBI and in Alma CZ's "EBSCOhost Ebooks" collection in the three areas of ISBNs, subject headings, and table of contents/abstract and reported differences between vendor-supplied MARC records. Electronic alone is not enough to define a good e-book, but rather users want e-books with robust and user-friendly capacities for navigation, reading, and accessibility, with little to no DRM restrictions (Owens et al., 2023). Kaplan (2012) has highlighted the different purchasing models of e-books and has discussed the various advantages and disadvantages of e-book purchase models.

Vasileiou and Rowley (2011) found the key promotion tools used for e-books by libraries include library websites, information literacy sessions, OPACs, induction sessions, in-person instruction, and e-mails. Budget constraints and pricing of e-books serve as a deterrent to the easy and natural adoption of e-books by libraries for their patrons (Rao et al., 2017).

In their paper, Slutskaya and Linoski (2020) has suggested that not only the cost of the e-books but the cost of acquiring and maintaining purchases should also be considered. A thorough understanding of library budgetary constraints, staff availability, and skill level is essential in determining the workflow that will best fit a specific situation.

3. Objectives of the Study

The main objectives of the study are:

- to understand different aspects of e-book management process
- to identify different challenges associated with e-book management
- to find out the different measures adopted to resolve the issues related to e-book management

4. Scope and Limitations of the Study

North-East India comprises eight states, viz Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The region has several renowned institutes offering higher education in specific fields as well as conventional disciplines. Due to being distant from mainland India and geographical restrictions,

this region has adopted a modern system of education and witnessed significant developments in the education system, including Higher Education Institutions (HEIs). Libraries, being the heart of the institutes, are one of the first to adopt new technologies, which are also evident in the adoption of ICT and e-resources including e-books. Considering this, a survey of Higher Education Institutions would help understand the practices of e-book management in academic libraries in North-East India. The study is focused only on the e-books subscribed/purchased by the institutes individually, excluding the e-books from consortia and open-access platforms. The websites of different institutions were visited to check their holdings of e-books and finally, the following four Higher Education Institutions were considered for the study:

4.1 Sikkim University:

Sikkim University is a Central University Act passed by the Indian Parliament, offering higher education in 33 different subjects. It is one of the top universities in North East India. Teesta-Indus Central library of Sikkim University is a modern academic library in the region enriched with both print and electronic resources.

4.2 Assam Agricultural University:

The Assam Agricultural University is one of the important universities in North-East India with the mandate of imparting farm education, conduct research in agriculture and allied sciences and to effectively disseminate technologies so generated. Rev B. M. Pugh Library of AAU has been automated using Koha LMS under the ICAR library strengthening project.

4.3 Indian Institute of Management (IIM) Shillong:

IIM Shillong is the only IIM in the country's entire North Eastern (NE) region and has been designated as an Institute of National Importance under the terms of the IIM Act 2017. The library of IIM Shillong offers a variety of e-resources like e-journals, databases, case studies, course studies, datasets and a huge number of e-books in different subjects.

4.4 Sikkim Manipal Institute of Technology:

SMIT is one of India's finest technology and management institutes and is part of the renowned Manipal Group. Sikkim Manipal Institute of Technology provides a range of courses in Engineering, Basic Sciences and Management Studies. The SMIT library provides a blend of resources in both print and electronic format. The library has made all its electronic resources remotely available.

5. Methodology

Keeping in view the objectives of the study, an online questionnaire comprising both open and closed-ended questions was prepared in Google Forms to collect data from the libraries selected for the study. Details of the different types of higher education institutions were retrieved from the official site of the UGC (University Grant Commission) in India. Further, the institutions situated in the North-East region of India with a substantial number of e-books were identified and selected for the study, with representation from each of the Central University, State University, Private University, and the Institute of National Importance. An email containing a link to an online questionnaire for librarians or staff members handling e-books and e-resources was sent to distribute the questionnaire, which was created to gather data from the libraries. Additional information was also gathered by visiting the official websites of the institutes/libraries.

After compiling, evaluating, and analyzing the data, a comparative study of all the libraries that were the subject of the inquiry was finally provided.

6. Analysis and Interpretation of Data

Analysis and interpretation of data collected for the study has been done under different subheadings as presented below:

6.1 E-Book Collections

The number of e-books is varied across all the institutions under study. IIM Shillong has more than ten thousand e-books the highest number of e-books, SU and AAU have almost equal numbers of e-book collections, around four thousand. SMIT has the lowest number of e-books which is below one thousand.

6.2 Collection Development Policy

The collection development is central to the professional practice of librarianship since the notion of library is fundamentally associated with the idea of a collection (Corrall, 2012). Collection development still essential and holds equal importance in this contemporary digital era. Electronic resources have become an integral part of the modern library collection which includes e-journals, online databases, e-books, etc. As the nature of the electronic resources is different from the print resources, formulating sound collection development policies for the e-resources including e-books has become necessary. The policy should cover all aspects related to the e-books like selection, technical feasibility, supply, vendor support, licensing, formats, access, and storage, etc.

Only IIM Shillong has a collection development policy for e-books, other institutes i.e. SU, SMIT and AAU do not have an exclusive collection development policy for e-books.

6.3 E-Book Procurement

Along with the proliferation of e-books, the number of e-book providers has also increased. Now almost every vendor dealing with print books provides e-books, publishers also directly provide e-books through their own platforms, and aggregators like ProQuest Ebook Central & EBSCO provide access to a large collection of e-books from various publishers. E-book readers like Kindle is also gaining popularity which offers a huge number of e-books on subscription basis. The procurement of e-books done by the institutes is shown in the chart below:

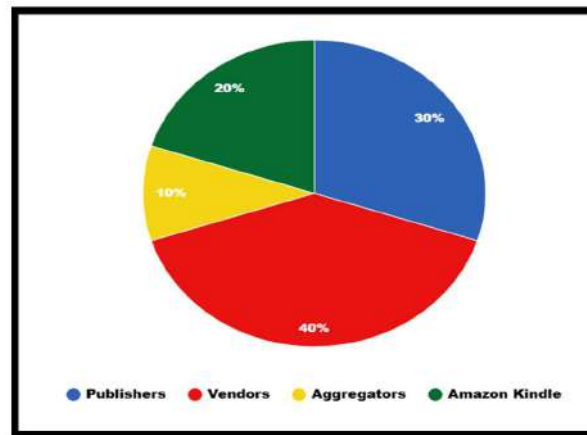


Fig. 1: E-books Procurement Sources

The preferred sources of procurement is vendors for all the institutes, followed by publishers. SU and IIM Shillong are also procuring e-books through Amazon Kindle, and IIM Shillong is acquiring through aggregators. All participating institutes agreed that e-books are acquired not on a specific period but as needed.

6.4 Acquisition and Budget

Libraries are now giving equal or even more emphasis on building a strong e-resource collection than print collections. The necessity of rich e-resources was experienced during the hard times of the COVID-19 pandemic. Therefore, to enrich their electronic collections, libraries are compelled to give a good share of their budget to procure e-resources, including e-books.

The investment in e-books depends upon the availability of the funds. Funding agencies for HEIs like the University Grants Commission (UGC) India are also providing special grants for e-resources. The share of funds for the expenditure on e-books is under the discretion of the policies of the individual institutes.

The primary source of funding for e-book acquisition is the library budget; no special budget is allocated for e-books. SU, IIM Shillong, and SMIT spent 10–25 percent of their total budget, and AAU spent 25–50 percent of the main budget for e-book purchases in the last financial year.

6.5 Acquisition Models

Several types of acquisition models for e-books have emerged, e-book providers offer e-books in different acquisition models that allow libraries, institutions, and individuals to tailor their e-book collections and access strategies according to their specific needs, budget constraints, and usage patterns. Some of the common e-book acquisition models are Pick & Choose, Bundles and Collections, Patron-Driven Acquisition (PDA) / Demand-Driven Acquisition (DDA), Evidence-Based Acquisition (EBA), etc.

SU and SMIT prefer the Pick & Choose acquisition model, while IIM Shillong goes with discipline/subject package, and AAU prefers the bundle package.

6.6 E-book Category

E-books covers range of subjects and the nature of the contents are also diverse. Some of the publishers/vendors are focused on one discipline or type. As an example, Pearson and SAGE have a good collection of e-books in the textbook category, and publishers like Springer specialize in science publications.

The requirement of individual libraries depends on different factors like the level of programs offered, areas of research, needs of the users, collection development policies and availability of funds, etc.

All of the institutes offer different categories of e-books, text books hold the majority of their e-book collections, SU and IIM Shillong and AU also provide reference books in electronic format. SU and IIM Shillong also have general books other than the text and reference ones.

6.7 E-book Selection

Selection process is naturally at the heart of collection development (Johnson 2018). Institutes have their policies and practices for the selection of e-books tailored as per their requirements. Some of the institutes still follow the traditional paper-based requisition system, which is routed through different channels, and some have developed an online requisition system. The objective of both systems is to get requests for e-books from

patrons. Publishers also provide the catalogue of their new publications and sometimes give trial access to the e-book collections to promote the e-books.

Libraries also play a huge role in the selection of e-books as they are the final checkpoint to scrutinize the usefulness of the collection and go ahead with the purchase. Librarians have a good knowledge of subjects and can help in selecting useful titles and they are also involved in allocation, diversion of funds, as well as the negotiations during the purchase. The selection of e-books is primarily done based on the requests received from library users; publisher's recommendations are also one of the major sources for selecting titles. The librarian gets involved in the selection process at AAU and IIM Shillong. The least popular method of selection is the use of usage statistics, which are typically applicable to trial access that publishers provide to market their e-book packages.

6.8 Electronic Resource Management Systems (ERMS)

ERMS is a tool or platform used by libraries to manage electronic resources such as e-books, e-journals, databases, and other digital content. ERMS helps in streamlining the acquisition, access, management, and usage tracking of these electronic resources. The use of Electronic Resource Management Systems (ERMS) is still not popular in the management of e-books. IIM Shillong uses EBSCO HoldingsIQ & ProQuest Intota and SMIT uses Easylib which is a Library Management System.

6.9 Access & License Models

Access and license models for e-books refer to the various ways in which e-books can be accessed by users and the terms under which they are licensed by libraries, institutions, or individuals. These models determine how e-books can be used, shared, and distributed, affecting everything from availability to cost. The e-books are acquired in a perpetual access model by the libraries of SU, AAU, and IIM Shillong whereas SMIT has e-books under a subscription model. All libraries are acquiring e-books with multiple-user licenses.

There are multiple ways to access the e-books, hosting separate web pages created for e-books, lists with URLs in excel sheets, library websites and appending the details in the library catalogue are few of the methods. The ultimate purpose is to provide seamless access to the users in most convenient way. The most common gateway to accessing e-books is through the library website. SU and IIM Shillong have also made their e-book collections available through the library catalogue. Remote access to the e-books is also provided by all the libraries through different platforms like SU (INFED), AAU (RemoteLog), IIM Shillong (Knimbus) and SMIT (Remotex).

6.10 Promotion/Marketing Strategies

One of the major challenges related to E-resources including e-books is their existence in virtual format. Justifying their purchase, which normally involves a huge cost is another concern. Thus, libraries now need to implement a variety of promotional strategies to guarantee the best possible use of e-books available. AAU and SMIT do not have any strategy to promote the e-books whereas SU promotes its e-books through websites, posters, and flyers, and IIM Shillong uses email alerts, newsletters, and electronic displays to promote their e-book collections.

Table 1: E-books Promotion/Marketing Strategies

S. No	Library	Promotion/Marketing Strategies
1	SU	Website, Posters, and Flyers
2	AAU	No strategy to promote e-books
3	IIM-S	Email, Newsletters, E-displays
4	SMIT	No strategy to promote e-books

6.11 Usage Statistics and Renewals

All of the libraries track the usage of e-books and use the reports provided by the publishers/vendors. A usage report is usually helpful in justifying the procurement and also in deciding whether to renew the e-books in the case of a subscription model. There are various ways to calculate usage; some of the common methods are log analysis, hit counts, and most publishers/aggregators now provide usage reports in the COUNTER standard, which is credible, consistent, and comparable usage metrics. The frequency of reviewing the usage report by SU, AAU, and IIM Shillong is not fixed, they usually review the usage as and when required, but SMIT reviews the usage of e-books every quarter of the year.

The factors considered for the renewal of subscription-based e-books depend upon the availability of the funds and the usage of the collection.

6.12 Challenges & Solutions

Users also encounter a variety of issues in addition to those related to the library's management of e-books, such as their acceptance and use of technology, familiarity with the platform and its access methods, etc. Some of the common issues faced by patrons when accessing e-books and reported by the libraries are mentioned in the table below. Difficulty in navigating the platform is one of the prime challenges associated with e-books. Other concerns include technical issues and Digital Right Management (DRM) related problems. To tackle the challenges, all the institutes, excluding SU, have relied on conducting workshops and orientation classes to make users aware of e-books and their access. In addition to this IIM Shillong and SU is providing assistance through one-on-one personal assistance, tutorials or guides, and online help resources.

There are several challenges associated with e-books starting right from collection development until the very last stage, i.e. renewal and cancellation. The other issues include budget constraints, availability of e-books in limited languages, and dealing with complex licensing agreements covering different facets like authentication, perpetual access, post-cancellation rights, user rights, DRM, etc. Technical challenges are also there regarding the compatibility of access and downloading formats and the formats of the bibliographic details. Along with the promotion, awareness among the users about the availability of e-books is also crucial. Budget constraints is one of the major challenges experienced by all the institutes, followed by concern over the unawareness of the users regarding the availability of the e-books. SU and IIM Shillong have been facing problems related to limited availability and getting books in regional languages, AAU and Shillong have mentioned the challenges pertaining to technical and licensing issues.

To mitigate the above-mentioned challenges, the participating institutes have recommended several suggestions, which are listed in the table below:

Table 2: Suggestions of the Libraries

S. No	Library	Suggestions
1	SU	Better integration with library systems, enhanced patron access and usability, increased budget for e-books
2	AAU	Enhanced patron access and usability, better training for Librarians/staff
3	IIM-S	Better integration with library systems, enhanced patron access and usability, increased budget for e-books
4	SMIT	Better integration with library systems, enhanced patron access and usability, increased budget for e-books

7. Results and discussions

It was found that the libraries of the institutes selected for the study offer e-books as an indispensable resource, though collection development policies for e-books is found lacking. Publishers and vendors are the main sources of procurement for e-books. Unlike print books, the acquisition process of e-books is not periodic; it depends upon the need and availability of the funds. On average, one-third of the total budget is allocated for e-books. The study found that the major factors affecting the selection of e-books in these institutes are budget and subject coverage. Owing to the investment in e-books perpetual access with multiple users seems preferable. The integration of e-books using the discovery platform, providing access on a single platform is essential, as the diverse interface of the e-book platforms may create confusion among the users. Use of standard formats like MARC for bibliographic data/metadata for e-books is also necessary for uniformity, proper record management, and access. Training and user orientation are also essential for promoting e-books and familiarizing staff with the format and its platforms.

8. Conclusion

Results of the current study show that libraries of the institutes irrespective of their types have incorporated e-books in their library collection as an indispensable resource. However, no uniform process is followed by the institutes and a standard framework for the management of e-books seems lacking. The management of e-books in academic libraries involves a complex interplay of acquisition strategies, user behavior, and technological considerations. Effective management frameworks and strategies are essential to navigate the challenges associated with digital rights, licensing, and platform functionalities. By addressing these issues, libraries can ensure that e-books remain a valuable and accessible resource for their users.

References

- i. AAP. (2022, November 19). *AAP StatShot Annual Report for 2021: Book publishing revenues up 12.3% for the year, reaching All-Time high of \$29.33 billion - AAP*. AAP - the Voice of American Publishing. <https://publishers.org/news/aap-statshot-annual-report-for-2021>.
- ii. Ardito, S. (2000). "Electronic Books: To 'E' or Not to 'E': That Is the Question." *Searcher* 8(4). <https://www.infotoday.com/searcher/apr00/ardito.htm>
- iii. Armstrong, C., & Lonsdale, R. (2005). Challenges in managing e-books collections in UK academic libraries. *Library Collections Acquisitions and Technical Services*, 29(1), 33–50. <https://doi.org/10.1016/j.lcats.2004.12.001>
- iv. Bush, V. (1945). Vannevar Bush: As we may think. The Atlantic. <https://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/>
- v. archive/1945/07/as-we-may-think/303881/
- vi. Chen, X. (2024). Managing Ebooks: Challenges in Alma Community Zone. *Collection Management*, 1–14. <https://doi.org/10.1080/01462679.2024.2442918>
- vii. Corral, S. (2012). The concept of collection development in the digital world. In M. Fieldhouse & A. Marshall (Eds.), *Collection development in the digital age* (pp. 3-26). Facet Publishing.
- viii. Gardiner, E., & Musto, R. G. (2010). The Electronic Book. In H. R. Woudhuysen & M. F. Suarez (Eds.), *The Oxford Companion to the Book* (pp. 164–171). Oxford University Press.
- ix. Gibbons, S., Peters, Thomas A., and Bryan, R. (2003). E-Book Functionality: What Librarians and Their Patrons Want and Expect from Electronic Books. American Library Association.
- x. Peggy, J. (2018). *Fundamentals of Collection Development and Management*. ALA Editions.
- xi. Kaplan, R. (2012). *Building and Managing E-Book Collections: A How-To-Do-It Manual for Librarians*. American Library Association.
- xii. Khan, G., & Bhatti, R. (2024). Selection of library materials in the University Libraries of Pakistan: A survey of Khyber Pakhtunkhwa. *Collection Management*, 49(1–2), 82–102. <https://doi.org/10.1080/01462679.2024.2335385>
- xiii. Lukes, R., Markgren, S., & Thorpe, A. (2016). E-Book Collection Development: Formalizing a policy for smaller libraries. *The Serials Librarian*, 70(1–4), 106–115. <https://doi.org/10.1080/0361526x.2016.1153329>
- xiv. Owens, E., Hwang, S., Kim, D., Manolovitz, T., & Shen, L. (2023). Do you love them now? Use and non-use of academic ebooks a decade later. *The Journal of Academic Librarianship*, 49(3), 102703. <https://doi.org/10.1016/j.acalib.2023.102703>
- xv. Oxford English Dictionary. (2024). *E-book, n*. Oxford University Press; Oxford English Dictionary. <https://doi.org/10.1093/OED/1100505543>
- xvi. Rao, K., Kumar, S., & Tripathi, M. (2017). E-book and print book price and desirability for university libraries: a comparative study. *The Electronic Library*, 36(1), 82–102. <https://doi.org/10.1108/el-06-2016-0142>
- xvii. Slutskaya, S., & Linoski, A. (2020). E-books: Access vs Ownership. *The Serials Librarian*, 78(1–4), 79–85. <https://doi.org/10.1080/0361526x.2020.1716927>
- xviii. Vasileiou, M., Rowley, J., & Hartley, R. (2012). The e-book management framework: The management of e-books in academic libraries and its challenges. *Library & Information Science Research*, 34(4), 282–291. <https://doi.org/10.1016/j.lisr.2012.06.005>
- xix. Walters, W. H. (2013). E-books in Academic Libraries: Challenges for acquisition and Collection management. *Portal Libraries and the Academy*, 13(2), 187–211. <https://doi.org/10.1353/pla.2013.0012>
- xx. Wells, D., & Sallenbach, A. (2023). Print books and Ebooks: The new equilibrium in an academic library. *Journal of the Australian Library and Information Association*, 72(2), 166–177. <https://doi.org/10.1080/24750158.2023.2183560>
- xxi. Wu, A., & Mitchell, A. M. (2010). Mass management of E-Book catalog records. *Library Resources and Technical Services*, 54(3), 164–174. <https://doi.org/10.5860/lrts.54n3.164>
- xxii. Zadravec, S. K., Buzina, T., & Seiter-Šverko, D. (2014). E-Book Ingest Module at the National and University Library in Zagreb. In *IFLA WLIC 2014*, Lyon, France. <https://library.ifla.org/id/eprint/860/1/087-klarín-en.pdf>