Use of Books in Jadavpur University: An Evaluative Study to Find Out Suitable Collection Development Policy

Thesis is submitted for the award leading to the degree of Doctor of Philosophy (Arts) of Jadavpur University.

By

Debashish Mukherjee

Supervisor

Professor Dr. Udayan Bhattacharya

Department of Library and Information Science.

Jadavpur University

Department of Library and Information Science

Jadavpur University Kolkata -700032.

West Bengal. India

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Certified that the Thesis entitled

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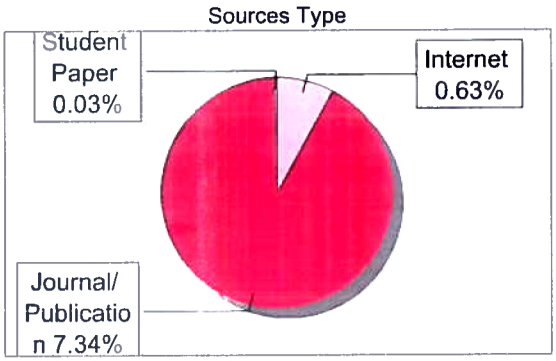

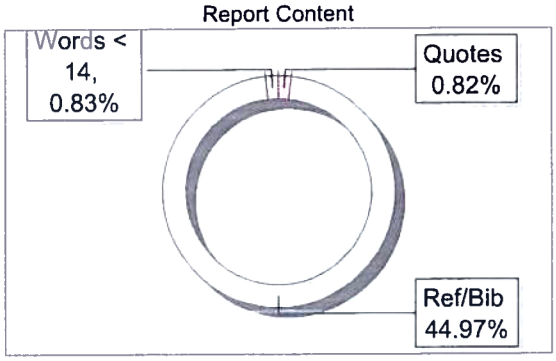

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Udayan Bhattacharya

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DR. UDAYAN BHATTACHARYA
PROFESSOR
DEPARTMENT OF LIBRARY & INFORMATION SCIENCE
JADAVPUR UNIVERSITY

To my parents,

Late Jitendra Nath Mukherjee

and

Late Sulekha Mukherjee

Whose values, encouragement, and quiet strength have shaped

every step of this journey.

Preface

This doctoral research emerges from a sustained engagement with the realities, challenges, and possibilities embedded within the collection development practices of academic libraries—specifically the Central Library of Jadavpur University. As a professional rooted in the field of Library and Information Science, I have long witnessed the growing disconnect between institutional holdings and actual patterns of use. This study was conceived to critically examine this gap and contribute towards the design of a Collection Development Policy that is not only empirically grounded but also sensitive to the evolving pedagogic, curricular, and intellectual contours of the University.

The research spans a historical arc from 1955 to 2023, meticulously analysing data from accession registers, departmental catalogues, and circulation records. It brings to light pressing concerns such as the underutilization of expansive collections, uneven disciplinary engagement, and financial inefficiencies that hinder the library's ability to serve its academic constituency effectively. The findings suggest a compelling need to shift from traditional acquisition models towards demand-driven, dynamic, and evaluative collection development frameworks.

This thesis is the culmination of years of careful investigation, data synthesis, and critical reflection. It benefits immensely from the guidance and scholarly insight of my supervisor, Professor Udayan Bhattacharya, whose encouragement and intellectual rigor have shaped every phase of this work.

I hope that the recommendations and policy framework proposed herein will serve not only the future of Jadavpur University Library but also inspire similar evaluative initiatives across academic institutions in India and beyond. Above all, this study stands as an earnest attempt to reaffirm the library's central role in academic life—not merely as a repository, but as a responsive, strategic, and inclusive knowledge system.

Kolkata

Date : Debashish Mukherjee

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Finally, I offer my heartfelt gratitude to the countless unnamed individuals who tirelessly contribute to the vast and ever-evolving universe of the internet, making knowledge accessible to all, at all hours.

I also extend my sincere thanks to all the teachers, family members, friends, colleagues and coresearchers whose names may not be mentioned here, but whose help and goodwill quietly uplifted me every step of the way. This work would not have reached completion without their silent, steadfast presence.

Place: Jadavpur University, Kolkata.

Date: Debashish Mukherjee

List of Abbreviations

AISHE-	All India Survey on Higher Education
Ben-	Bengali
CBA-	Cost Benefit Analysis
CE-	Civil Engineering
CEI -	Cost Effectiveness Index
CET -	College of Engineering and Technology
CL -	Central Library
Corporate-	Corporate Author
DA-	Double Author
Dept.-	Department
ECO-	Economics
ED-	Edited Book
Hist-	History
JU -	Jadavpur University
LIB GEN -	Library General
MA-	Multiple Author
ME-	Mechanical Engineering
NCE -	National Council of Education
NEP-	National Education Policy
NKC-	National Knowledge Commission
SA-	Single Author
UGC-	University Grant Commission

Contents

CHAPTER - 1

INTRODUCTION

"...आषाढस्य प्रथमदिवसे मेघमाश्लिष्टसानुं

वक्रकीडापरिणतगजप्रेक्षणीयं ददर्श ॥ १.१॥"

-(Kalidāsa : *Meghadūtam*)**)**

1.0 Introduction:

A library, often regarded as the soul of an academic institution, serves as a sanctuary where knowledge is cultivated and curiosity finds room to thrive. With its rich and diverse resources, it opens its doors to learners of all ages and backgrounds, encouraging exploration and intellectual growth. The tranquil and focused atmosphere it offers creates a space for deep engagement—often surpassing the stimulation found in conventional classrooms. Beyond being a repository of books, the library stands as a symbol of inclusivity and equality, where individuals from all walks of life can come together to learn, reflect, and share ideas without barriers.

However, the promise of high-quality library service depends critically on the presence of a comprehensive, user-focused collection. To meet the evolving needs of its patrons, a library must be guided by a documented collection development policy. Regrettably, in many subcontinental universities, such

policies are absent. Instead, collection decisions rely on administrative mandates shaped by institutional authorities. This practice, while administratively efficient, alienates users by creating an unseen wall between their academic needs and the resources available to them. It stifles responsiveness, limits inclusivity, and hampers the ability of the library to serve as a truly dynamic and user-driven space.

Just as Kālidāsa's Yakṣa in *Meghadūtam* feels the aching absence of direct communication with his beloved and relies on a cloud as an improvised messenger, a library without a documented collection development policy similarly struggles to connect meaningfully with its users. In the absence of a structured strategy, resource selection becomes arbitrary—driven by personal judgments or reactive decisions rather than actual user needs. This can result in misallocated budgets, duplicate or irrelevant acquisitions, and ultimately, user dissatisfaction. Without clear guidelines, services lack consistency, transparency, and the ability to anticipate future demands. Much like the Yakṣa's hope pinned on a passing cloud, the library's ability to serve well becomes uncertain and inefficient. A well-documented policy, then, is like giving the cloud a mapped route—it transforms vague intention into purposeful action, ensuring that collections are thoughtfully built to reflect institutional goals and meet diverse user needs.

1.1 **The Background:**

The library is a sacred crossing of knowledge, a radiant beacon of wisdom. May its stewards ever serve as companions to the seekers of truth.

We envision the academic library not merely as an archive of knowledge, but as a sacred crossing—tīrtha—where intellect awakens, the spirit inquires, and silence speaks. Inspired by the Vedic ideal of self-realization through knowledge (jñānamuktaye), this library serves as an āśrama for the modern seeker.

Here, knowledge is not accumulated for prestige but curated with viveka—the discerning intelligence that separates the eternal from the ephemeral. Every collection is a gesture of activation, every classification a reflection of cosmic order.

Guided by the inclusive spirit of amṛtasya putrāḥ, we honour every learner as a bearer of immortality, every query as a spark of divine curiosity. The librarian is not a gatekeeper but an upādhyāya, facilitating the seeker's inward and upward journey.

In this sanctuary, silence is not absence—it is presence in its purest form. Architecture, ambiance, and accessibility together become upacāras—offerings to the awakening intellect.

Let this library stand as the modern brahmasadanam—a house of truth—where tradition and transformation dance, and where the light of vidyā dispels the shadows of doubt.

1. Self-Knowledge as the Highest Pursuit

The Upanishadic ideal places ātma-jñāna (Self-realization) at the center of spiritual life. This isn't mere intellectual understanding, but direct, experiential knowledge that one's true nature is not the body or mind, but pure, unchanging consciousness. This leads to:

- Meditative Inquiry (Atma Vichara): Practicing quiet introspection, often guided by the question "Who am I?", to peel back identification with transient roles and reach the eternal Self.
- Study of Vedānta: Engaging deeply with texts like the Upanishads, Bhagavad Gītā, and the writings of teachers like Śaṅkara or Ramana Maharshi, to refine understanding.

2. Ethical Conduct Grounded in Divine Identity

If every being is a child of the eternal, then ethical living follows not from fear of sin, but from reverence for life. Key practices include:

- Ahimsa (non-harming): Respecting all beings as manifestations of the divine.
- Satya (truthfulness) and Compassion: Flowing naturally from recognizing the other not as "other," but as oneself in another form.
- Detachment with Engagement: Living actively in the world, but without clinging to outcomes—nishkāma karma as taught in the Gītā.

3. Affirmation of Human Dignity and Potential

This understanding dissolves inferiority complexes. Swami Vivekananda turned this very verse into a call for upliftment, education, and spiritual awakening:

- Education as Awakening: Not just memorizing, but unfolding the divinity within. This inspired his vision of a man-making education rooted in strength and self-trust.
- Service (Sevā) as Worship: Helping others not out of pity, but from a recognition of their sacredness.

4. Inner Freedom Amid Outer Conditions

Even in the face of suffering, recognizing oneself as amṛtasya putraḥ allows one to live from an inner stillness that is untouched by change. This opens the way to:

- Renunciation—not of the world, but of ego and false identification.
- Joy that isn't dependent on possessions or praise.

In essence, this teaching isn't just an ontological claim—it's a map for how to live with courage, clarity, and compassion. It reshapes how we see ourselves, others, and the meaning of a human life.

India's higher education landscape comprises 1,213 universities, categorized into four main types. The majority are private (42.2%) and state universities (41.4%), collectively accounting for over 83% of all institutions. Deemed-to-be universities make up 11.7%, while central universities represent the smallest group at 4.7%. This distribution underscores the significant role of private and state institutions in expanding access to higher education, alongside the specialized contributions of central and deemed universities.

India's 1,213 universities are unevenly distributed across states and union territories, reflecting varied socio-economic and policy landscapes. High-density states like Uttar Pradesh (104), Gujarat (100), Maharashtra, and Karnataka (89 each) dominate due to large populations and strong educational infrastructure. Mid-tier states such as Tamil Nadu (59), Andhra Pradesh (47), and Bihar (33) show moderate representation, indicating room for quality and institutional growth. States like Delhi (28) and Kerala (19) have fewer universities but emphasize quality and central support. Northeastern and smaller regions—such as Sikkim (12), Mizoram (2), and Andaman & Nicobar Islands (1)—feature limited presence, often tied to strategic or specialized institutional roles. This diversity underscores the need for region-specific planning in higher education development (UGC.2024).

India’s higher education system enrols over 43 million students, with undergraduate programs accounting for nearly 79% of total enrolments. Female participation shows notable gains, especially in postgraduate programs where women slightly outnumber men, and even at the Ph.D. level where gender parity continues to improve. In West Bengal, the trends mirror national patterns: undergraduate enrolment dominates, and women lead in postgraduate participation. However, diploma and certificate programs still reflect a gender imbalance favouring males, possibly due to prevailing vocational training trends.

University libraries, integral to this expanding academic ecosystem, have transformed from static repositories into dynamic, service-oriented hubs supporting learning and research. With over 1,213 universities and nearly 45,500 colleges, India's academic library infrastructure ranks among the largest in the world. These institutions now offer digital access, literacy training, and research consultation, adapting to interdisciplinary demands and technological reforms. The AISHE 2020–21 data underscores this momentum: increased enrolments, expanded institutional capacity, and a growing focus on accessibility and academic excellence. As reflected in IndCat's extensive bibliographic holdings and digital resources, the library system remains a strategic pillar of national development, underscoring the importance of sustained investment and policy modernization to meet the evolving needs of India's knowledge economy.

Despite the proliferation of digital media, books remain central to higher education by fostering deep learning, critical thinking, and academic rigor. They support in-depth engagement with disciplinary knowledge, theoretical frameworks, and historical contexts essential for scholarly development. Books also empower independent learning, preserve cultural and disciplinary continuity, and promote equitable access to reliable academic content through curated library collections. While digital tools enhance accessibility, books offer permanence and cognitive depth, making them indispensable complements in a balanced academic ecosystem. Together, they uphold the mission of higher education: nurturing informed, reflective, and capable individuals.

Global reading habits display notable variation across countries in terms of both the number of books read annually and time devoted to reading. While U.S. readers average about 17 books per year, India follows closely with 16, and Pakistan ranks lowest at 2.6. However, India leads globally in reading time, with an estimated 556 hours annually, indicating deep engagement. Despite the rise of digital formats, print remains the dominant medium, and genres like historical,

mystery, and biography are widely favoured. Encouragingly, a 2023 global survey revealed that 64% of respondents intended to read more books than the previous year, signaling a positive global shift toward increased reading.

Libraries are both timeless sanctuaries of knowledge and evolving academic ecosystems. Drawing inspiration from Vedic concepts, the library can be seen as a *tīrtha*—a threshold between ignorance and awakening—and an *āśrama* that fosters introspection and self-realization. Historically rooted in *śruti* (oral transmission), libraries continue to preserve and disseminate wisdom, now enhanced through digital access and open scholarship. The modern librarian mirrors the *upādhyāya*, guiding learners with empathy and intellectual discernment, upholding *viveka* in curating meaningful content over indiscriminate accumulation. Inclusivity, as enshrined in *sarvabhūtahita*, finds resonance in the library's role as a democratizer of access—bridging divides across language, ability, and discipline. Even silence, or *mauna*, becomes architecture, shaping contemplative space for inquiry and reflection.

Functionally, libraries are pivotal to higher education by enabling equitable access to academic resources, supporting curriculum and pedagogical innovation, fostering original research, preserving institutional heritage, and promoting lifelong learning. Their dynamic integration of print and digital services, collaborative frameworks, and user-centred innovations reflects both ancient principles and modern aspirations—anchoring higher education in a continuum of reflective growth, critical scholarship, and societal upliftment.

In the context of library management, collection evaluation is an essential, ongoing process aimed at ensuring that library resources effectively align with their stated objectives—whether academic, instructional, recreational, or community-oriented. This evaluative practice relies on both collection-centred and use-centred techniques to assess the size, depth, and actual utilization of the collection. Collection-centred methods, such as bibliographic comparison, shelf

list analysis, and statistical review, allow libraries to benchmark their holdings against established standards. Use-centred approaches, including circulation studies and in-house use surveys, provide insight into patron behaviour, information access patterns, and unmet user needs. Together, these tools help identify collection strengths, gaps, and evolving demands. Moreover, a clearly articulated collection development policy, informed by these assessments, ensures coherent acquisition strategies and facilitates inter-institutional collaboration through shared resource models. By incorporating empirical data into decision-making, libraries can enhance resource alignment, budget allocation, and strategic planning, thereby maintaining relevance and institutional responsiveness.

In the evolving landscape of higher education, university libraries play a pivotal role in supporting academic excellence, research advancement, and lifelong learning. Central to this mission is the development and maintenance of a robust and relevant collection of resources that meet the diverse and dynamic needs of students, faculty, and researchers. To achieve this, a systematic and evidence-based Collection Development Policy (CDP) is essential. A CDP serves as a strategic framework guiding the selection, acquisition, evaluation, and weeding of library materials in alignment with institutional goals and user demands.

An effective approach to collection development and management must be grounded in a thorough evaluation of the library's existing holdings, identifying both strengths and gaps, while assessing how well they align with the needs of current and prospective users. While professional judgment plays a crucial role in this process, reliance on a blend of collection-focused and user-centered assessment methods can help minimize subjectivity.

Collection-based metrics encompass factors such as the size, growth rate, and overall quality of the holdings, benchmarked against established external

standards. Meanwhile, user-centered evaluation examines the collection's usability, employing methods such as user surveys, accessibility and availability assessments, and circulation data analysis to gauge its effectiveness in serving academic and research needs.

The role of a university library is integral to supporting academic programs by providing access to relevant learning and research resources. As academic demands evolve, the library's collection must be continually assessed and updated. A Collection Development Policy (CDP) serves as a strategic document to guide the acquisition, evaluation, and weeding of materials. This thesis investigates the actual use of books in the university library to inform the development of a user-centric and data-driven CDP

This thesis focuses on the evaluation of book usage as a critical method for informing and constructing an effective Collection Development Policy for Jadavpur university library. By analysing patterns of book use—such as frequency of circulation, subject relevance, authorship, edition, year of publication, and place of publication—libraries can make informed decisions about which resources to retain, replace, or acquire. This evaluative approach not only ensures optimal use of limited budgets and space but also enhances the overall user experience by aligning the collection more closely with actual academic needs.

Ultimately, this research contributes to the broader discourse on library management and policy-making by demonstrating how empirical evaluation of book usage can lead to more responsive and sustainable collection strategies in academic libraries.

1.2 Statement of Problem:

The effectiveness of a university library largely depends on how well its collection meets the academic and research needs of its users. Jadavpur University, being a premier institution, requires a carefully curated collection of books that supports its diverse educational programs and research activities. However, without a clear understanding of how the existing books are being utilized, it is challenging to develop an optimal collection development policy. This study aims to evaluate the use of books in Jadavpur University library to identify gaps, patterns, and user preferences. The findings will provide valuable insights to formulate a suitable and dynamic collection development policy that ensures resource optimization and maximizes user satisfaction.

1.3 Research Questions:

- Is there any documented Collection Development Policy Jadavpur University have? What are the current gaps in the library's Collection Development Policy, and how can a comprehensive policy be formulated and implemented?
- How well does the existing collection align with the curriculum and departmental visions?
- What are the usage patterns of books based on bibliographic elements such as authorship, year of publication, edition, place of publication, and price?
- Which books or subject areas are underutilized, and which are in high demand within the library's collection?
- How is the current budget allocation affecting the acquisition of books?
- How frequently should collection usage be evaluated to inform acquisition and retention decisions?

1.4 Objectives of the Study:

- To evaluate the usage of books in selected academic departments.
- To analyse book usage patterns based on key bibliographic elements such as authorship, year of publication, edition, place of publisher, and price.
- To identify underutilized and high-demand documents of specific subject areas.
- To identify CEI (Cost Effective Index) and Cost benefit analysis of selected subject area.
- To recommend guidelines for constructing a Collection Development Policy grounded in empirical data.

1.5 Purpose / Aims of the Research:

The research topic, **"Use of Books in Jadavpur University: An Evaluative Study to Find Out Suitable Collection Development Policy,"** aims to analyze how books are used by students, faculty, researchers, and other users to evaluate the effectiveness of the current library collection. By examining usage patterns and identifying gaps, the study provides empirical evidence to develop a collection development policy that better aligns with the academic and research needs of the university community. This helps optimize resource allocation, ensuring funds are directed toward acquiring and maintaining relevant materials, ultimately enhancing user satisfaction and supporting academic success. Additionally, the research supports strategic long-term planning and contributes valuable insights to library science by promoting a user-centered, evidence-based approach to collection development.

This study benefits the nation by contributing to the improvement of academic libraries, which are crucial centers for knowledge, research, and education. By developing a more effective, evidence-based collection development policy at Jadavpur University—a prominent educational institution—the research helps ensure that students and researchers have access to relevant, high-quality resources that support learning and innovation. This, in turn, fosters a more skilled and knowledgeable workforce, promotes academic excellence, and drives research that can address national challenges. Ultimately, strengthening university libraries enhances the overall quality of higher education in the country, contributing to social and economic development at the national level.

1.6 Limitations:

Jadavpur University stands as one of India's premier institutions of higher education, comprising four major faculties: Arts, Engineering, Science, and Interdisciplinary Studies, Law, and Management. Under its academic umbrella, the university encompasses 36 departments, 22 schools, and 46 centres for study. Its extensive library holdings 693,905 volumes of books are distributed across various departments, schools, and centres, spanning the main campuses at Jadavpur and Salt Lake, as well as the central library facilities.

The present study focuses on the holdings of seven departments: Bengali, Economics, and History from the Faculty of Arts; Civil Engineering and Mechanical Engineering from the Faculty of Engineering and Technology; and Mathematics and Physics from the Faculty of Science. The analysis is based solely on the usage data of underused physical books. The scope of collection development and book usage spans the period from 24 December 1955 to 31 March 2023. Additionally, the financial analysis—covering expenditures on printed books, e-books, and journals—is confined to the period between 2017 and 2023.

1.7 Methodology:

The study employs a qualitative, document-based approach, drawing on a range of administrative records including accession registers, circulation statistics, and catalogue data spanning several decades.

- Department Selection: Departments with the highest volume of holdings were identified through an analysis of the university's accession registers and catalogue databases. Seven departments were ultimately selected: three from the Faculty of Arts (Bengali, Economics, and History—representing Language, Humanities, and Social Sciences respectively), two from the Faculty of Science (Mathematics and Physics), and two from the Faculty of Engineering and Technology (Civil Engineering and Mechanical Engineering).
- Collection of Circulation Data: Physical verification of stacks was carried out for each selected subject area. Date slips affixed to individual books were examined to trace historical usage patterns.
- Analysis of Usage Records: A review of circulation data, gate pass logs, and user records from the Reading Room and Reference Section was undertaken to capture broader usage trends within the university library system.
- Identification of Low-Usage Materials: Books identified as underused, unused, or misplaced were documented as part of a systematic evaluation of collection efficiency.
- Supplementary Sources: Additional contextual information was gathered from administrative files, annual reports, archival resources, relevant literature, and interviews with library personnel. The researcher's personal observations and professional experience further enriched the qualitative data.

- Data Processing and Presentation: Data were organized and analyzed using MS Office tools, and findings were presented in both tabular and graphical formats.

The methodological framework is designed to yield a nuanced understanding of historical and current usage trends. The insights derived aim to inform the development of a collection development policy that is empirically grounded, user-responsive, and future-ready.

1.8 Style of Reference:

The APA (American Psychological Association) citation style is one of many different citation styles. Guide lines of APA 6th editions, 2010 followed here for citation of print and non-print materials in the text and for making list of references.

1.9. Chapterisation:

Chapter 1: Introduction: This chapter introduces the research by contextualizing Jadavpur University's role in Indian higher education and its library's academic significance. It outlines the study's objectives, research questions, methodology, scope, and limitations.

Chapter 2: Review of Literature: A critical synthesis of 151 scholarly sources relating to collection development and book usage. The review situates the research within the academic library domain, highlighting trends, models, and gaps that inform the study.

Chapter 3: Library and Higher Education: This section surveys the evolution of India's higher education landscape, emphasizing the integral role of libraries in promoting academic vitality, research facilitation, and institutional growth.

Chapter 4: Collection Development Policy: Analyses Jadavpur University Library's policies and selection strategies. Explores alignment with curricular

needs, preservation efforts, and challenges such as funding limitations and shifting user expectations.

Chapter 5: Jadavpur University: Growth and Development of Collection: Charts the historical growth of the library, reviews current holdings, and assesses the library's preparedness in addressing academic and research demands.

Chapter 6: Use of Books: Evaluates book usage patterns using circulation data. Assesses how effectively the collection serves diverse scholarly constituencies at the university.

Chapter 7: Weeding: Examines deselection criteria including relevance, usage, and condition. Discusses transparency, faculty involvement, and documentation, alongside limitations such as infrastructure and preservation constraints.

Chapter 8: Funding and Budget: Describes the library's funding sources—state grants, internal allocations, and limited external support. Reviews planning strategies and the impact of financial constraints on modernization and service excellence.

Chapter 9: Data Interpretation and Analysis: Provides statistical analysis of book usage aligned with the study's objectives. Presents findings through tables, graphs, and interpretive commentary.

Chapter 10: Findings and Conclusion: Summarizes key outcomes, offering suggestions and policy recommendations based on empirical results and interpretive insights.

Chapter 11: Bibliography: A systematically arranged list of all referenced sources for verification and further academic exploration.

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CHAPTER – 2

REVIEW OF LITERATURE

"That is part of the beauty of all literature. You discover that your longings are universal longings, that you're not lonely and isolated from anyone. You belong."

-- F. Scott Fitzgerald

2.0. Review of Literature: The literature review serves as a bridge between the proposed research and existing studies, allowing readers to appreciate the evidence gathered by previous researchers. It acts as a foundational step for conducting research, offering insights and context to support new inquiries. Consequently, numerous studies have been undertaken to explore collection development methods and policies, contributing to a deeper understanding of the subject. The literature on relevant studies have been reviewed on Collection Development Policy and the different related aspects of Collection Development like, Collection Management, Acquisition, Budget, Circulation Analysis, Academic Library, Electronic Resources, Collection Evaluation, Cooperative Collection Development, Resource Sharing and Weeding Out.

The reviewed literature has been arranged systematically under the different headings and again under the same chronological order, alphabetical arrangement has been followed in this study.

2.1 Collection Management in Libraries:

Collection management is a critical function within library operations, involving the systematic selection, acquisition, evaluation, preservation, and weeding of resources to meet user needs and institutional goals. Over the past few decades, this process has undergone substantial transformation due to technological advancements, the emergence of hybrid collections, and changing user expectations. A review of key studies from 1996 to 2014 reveals how libraries have adapted their collection management practices in response to these evolving challenges. One of the earliest discussions on the impact of digital resources came from Nisonger (1996), who examined the management of electronic journals. He highlighted licensing complexities, access issues, and shifting user behaviour, emphasizing that traditional functions such as selection and evaluation remain crucial even in a digital environment. Singh (2004) expanded on this theme, noting that the incorporation of CD-ROMs and online materials required updated evaluation criteria and decision-making frameworks. Ameen (2005) also addressed the increasing dominance of electronic formats and urged libraries to reevaluate their policies to better align with changing information formats and user expectations. In addition to technological influences, strategic planning and policy formulation emerged as vital components of successful collection management. Bazin, Desmarais, and Schuster (2006) presented a case study from Providence College Library, where a structured deselection process for periodicals enabled efficient use of space and resources. Their study illustrated the benefits of using formal collection management systems to guide informed decision-making. Similarly, Das and Choudhury (2014) emphasized the need for user needs assessments, resource sharing, and sound acquisition policies in their examination of university libraries in Odisha, India. They argued that dynamic collection development must be both user-centric and responsive to institutional priorities. The complexities of managing hybrid collections, particularly in

university libraries, introduced additional challenges. Ameen and Haider (2007) investigated Pakistani university libraries and identified the dual responsibility of managing both print and electronic formats, adapting to evolving user needs, and ensuring staff were adequately trained. Their recommendations included staff capacity building and strengthening inter-library resource-sharing frameworks to address these multifaceted demands. Demas and Miller (2012) took a broader perspective by advocating for cooperative collection management. They proposed that libraries collaborate within consortia networks to avoid duplication and make better use of limited resources. This collaborative approach, they argued, is especially effective in resource-constrained environments and ensures broader access for users. Overall, the literature reflects a shift from traditional, print-focused collection management to a more flexible, technologically adaptive, and user-driven model. Libraries are increasingly required to navigate complex digital landscapes, reassess long-standing policies, and engage in strategic collaborations. As collection formats and user expectations continue to evolve, the ability of libraries to manage collections responsively and sustainably remains essential to their mission.

2.2 Collection Development Policy:

Collection development has long been a central pillar of library management, with collection development policies (CDPs) serving as critical instruments for guiding the acquisition, maintenance, and evaluation of library materials. Historically, the importance of aligning collections with user needs and institutional goals has been widely recognized. Goldhor (1942) laid the theoretical groundwork by emphasizing the institutional role of book selection, while Clarke (1971) highlighted the enduring debates surrounding this practice dating back to the sixteenth and seventeenth centuries. These early perspectives underscored the need for structured policies to guide collection growth. The relevance of CDPs to institutional missions has been reinforced by several

scholars. Kohl (1991) examined this dynamic in the context of parliamentary libraries, asserting that collection decisions should support broader organizational functions. Similarly, Paramesharan (1997) advocated for the formation of library committees to ensure that policy formulation reflects institutional goals. Cabonero and Mayrena (2012) echoed these views, emphasizing that well-developed policies not only support institutional visions but also enhance strategic planning and accountability. Hazen (1995), however, critiqued traditional CDPs for being too rigid, arguing instead for dynamic, flexible models that serve as adaptable "information maps. "The benefits of written CDPs have been extensively documented. Vickery (2004) and Hollingum (2013) stressed that formal policies are essential for acquisition planning and setting consistent standards, particularly in specialized libraries such as those in legal environments. Chaputula and Kanyundo (2014) illustrated the operational risks associated with the absence of a formal CDP at Mzuzu University, where collection practices became haphazard and lacked transparency in acquisition and weeding. Olaojo and Akewukereke (2006) added that specific policy components—such as subject focus, language preferences, and time coverage—are crucial for developing high-quality collections. The advent of digital technology has transformed the scope and function of CDPs. Koulouris and Kapidakis (2005) discussed how digital libraries must address copyright and acquisition policies differently from traditional collections. Mangrum and Pozzebon (2012) observed that while many libraries are adept at handling licensing agreements, they often lack formalized policies governing digital acquisitions. Srivastava, Parabhoi, and Sonkar (2016) noted that the rise of electronic resources has increased the need for collaborative collection development and digitization initiatives, necessitating policy revisions. Kaur and Gaur (2017) further emphasized that access to digital content is reshaping academic libraries' collection strategies, demanding more dynamic and responsive policies. Effective CDP formulation depends on a well-structured administrative process and inclusive stakeholder engagement. Paramesharan

(1997) and Cabonero and Mayrena (2012) both advocated for involving faculty, librarians, and administrators in policy development to ensure relevance and broad acceptance. Nabe (2011) offered a practical example from Morris Library, where administrative restructuring improved collection planning and clarified staff roles. The study demonstrated that organizational change, when paired with coherent policy frameworks, can significantly enhance library efficiency. Contemporary case studies continue to validate the value of CDPs in practice. Frempong-Kore (2021) recommended that private academic libraries undertake regular policy reviews to stay aligned with technological advancements and shifting user demands. Chaputula and Kanyundo (2014) provided further evidence of the negative consequences of operating without a formal policy, while Hollingum (2013) demonstrated how standardized policies in law libraries contribute to consistent and effective collection practices. These findings affirm that both the presence and quality of a CDP have a direct impact on library operations and service delivery. In summary, the literature reveals that collection development policies are essential tools for managing and evolving library collections. Historical foundations have informed contemporary practices, but the changing information landscape—especially the shift toward digital resources—requires ongoing policy updates. A well-crafted CDP supports accountability, ensures consistency, and enables libraries to align their collections with user expectations and institutional missions. To remain relevant and effective, libraries must adopt flexible, inclusive, and forward-looking policy models that balance traditional values with emerging needs.

2.3 Cooperative Collection Development:

In the face of rising costs, shrinking budgets, and rapidly expanding information needs, cooperative collection development (CCD) has emerged as a strategic response among libraries, particularly academic and research institutions. This review article explores the contributions of several scholars and practitioners to

the evolving discourse on CCD, examining its necessity, implementation challenges, and benefits in the digital and financially constrained landscape of modern librarianship. Mosher (1989) laid the groundwork by highlighting the critical need for cooperation among libraries, especially when dealing with inadequate budgets. According to Mosher, cooperative collection development ensures that libraries can offer broader and more diverse resources by minimizing duplication and maximizing shared access. This early advocacy established the framework for later models of collaboration. Shreeves (1997) reinforced this view in the context of academic libraries, emphasizing the relevance of CCD in the digital age. Shreeves argued that as digital resources proliferate and access models evolve, libraries must work together to curate complementary collections that meet the wider academic community's needs. Chapman (1998) offered a European perspective, particularly focused on the UK. While acknowledging the theoretical benefits of cooperation, Chapman noted the practical challenges of implementation, including cost implications and institutional reluctance. A key insight was the need for staff training programs to equip library professionals with the skills necessary for effective collaboration—a critical step often overlooked in planning CCD initiatives. Madden (2010) contributed a disciplinary lens, discussing the collaborative management of musical materials. In such specialized fields, Madden argued, cooperation is especially vital, but it requires a well-defined policy framework that clearly articulates each participant's responsibilities, objectives, and collection priorities. Booth and O'Brien (2011) outlined the tangible advantages of cooperative collection development, including time and cost savings, enhanced collection strength, and the ability to meet user demands more comprehensively. The authors presented CCD not merely as a response to scarcity but as a proactive strategy to improve service delivery and institutional efficiency. Collins (2012) explored the intersection of CCD with interlibrary loan (ILL) services in research libraries. The author emphasized that CCD initiatives, when paired with robust ILL systems, could

significantly expand access for users while minimizing acquisition costs. This model supports both breadth and depth in collections, allowing institutions to specialize without sacrificing user access to a wider range of resources. Romero (2012) contextualized CCD within the economic challenges faced by libraries during financial crises. According to Romero, cooperative strategies such as resource sharing through consortia, coordinated purchasing, and ILL are essential tools for libraries navigating tight budgets. The author argued that CCD is not just a strategic advantage but a survival mechanism that enables libraries to adapt to shifting user demands in the digital environment.

2.4 User Evaluation:

User evaluation has become an essential element in shaping effective and responsive library collection development. Spanning over five decades, the literature reflects a growing emphasis on understanding user behaviour, predicting usage patterns, and integrating technological advancements to enhance library services. From early statistical modelling to modern recommender systems, researchers have explored diverse approaches to ensure collections align with the dynamic needs of library users. One of the foundational efforts to systematize collection evaluation was introduced by Jain, Leimkuhler, and Anderson (1969), who proposed a statistical model to determine when unused books should be transferred to storage. This early attempt to balance space optimization with accessibility influenced later models such as that of Silverstein and Shieber (1996), who utilized historical circulation data and bibliographic features to guide off-site storage decisions at Harvard. Evans (1970) contributed by comparing usage based on selection sources, revealing that books chosen by faculty often experienced different usage patterns than those selected by librarians. As digital formats became more prevalent, researchers began to examine how format influences usage. Wacholder, Liu, and Liu (2006) investigated student preferences for print versus electronic books, discovering

that design and usability significantly affected selection behavior. Slater (2009) echoed these findings in a study at Oakland University, noting that books acquired locally received more use than those obtained through consortia agreements and that usage of print and digital formats did not always correspond at the title level. Levine-Clark and Jobe (2007) studied the impact of Choice reviews on book selection and found that while reviewed titles were acquired more frequently, they exhibited faster declines in usage over time. Localised usage patterns and institutional differences have also emerged as critical factors in evaluating collections. Collins and Stone (2014) argued that while benchmarking across libraries offers value, collection decisions should account for unique factors such as institutional focus and user behaviour. Hobbs and Klare (2016) offered a nuanced understanding of e-book use at Wesleyan University by combining usability studies with surveys. Their results showed increased e-book usage but also revealed persistent difficulties with digital interfaces, underscoring the need for improved platforms and user instruction. In recent years, innovative collection development strategies like Patron-Driven Acquisition (PDA) have gained traction. Tynan and McCarney (2014) documented the University College Dublin's PDA program, which allocated a significant portion of the book budget to user-driven selection. The project revealed distinct usage and spending patterns across disciplines, emphasizing the need to balance user preferences with traditional acquisition workflows. Similarly, Arshad, Ameen, and Jabeen (2021) analysed print book selection in public sector women's colleges in Lahore, highlighting a participatory but hierarchical approach. Although acquisitions relied heavily on faculty input and publisher catalogue, the study advocated for more formalized policies and broader engagement in decision-making. The rise of artificial intelligence has introduced new possibilities for user-centred collection evaluation through recommendation systems. Kusumawardhani, Nasrun, and Setianingsih (2019) developed a hybrid recommender model that successfully predicted user preferences using collaborative filtering and item-

based similarity. Sahane (2021) explored various recommender system techniques, noting their potential to re-engage readers—especially youth—by tailoring suggestions to individual interests. These technologies offer promising solutions to personalize library services and combat declining reading habits. Specialised collection evaluations have also emerged, focusing on specific user groups and content types. McElfresh and Gleasner (2019) evaluated historical medical collections at the University of New Mexico using adapted assessment tools to align preservation efforts with current user interests. Similarly, Schneider (2014) examined the prevalence of graphic novel collections in American public libraries and found them to be widely circulated and effective for adult literacy and community engagement, suggesting a new domain for public-private partnerships. Overall, the literature underscores that user evaluation is integral to library collection development. From data-driven models to participatory acquisition and technological innovation, these studies demonstrate how libraries can enhance collection relevance and accessibility by understanding and anticipating user needs. As library environments continue to evolve, the ability to integrate user feedback and behaviour into collection strategies remains a vital component of effective resource management.

2.5 Acquisition:

The acquisition of library materials is central to developing meaningful collections that support teaching, learning, and research in academic institutions. Given the increasing complexity of user needs and the expanding range of available information resources, libraries must adopt flexible, efficient, and user-focused acquisition strategies. This article reviews studies that address acquisition models, technological interventions, stakeholder involvement, and the shifting balance between print and digital resources in academic libraries. Changing Acquisition Policies and Technological Integration Peasgood (1986) examined the impact of computerization on the circulation and acquisition

processes at the University of Sussex Library. The study indicated that subject-specific circulation trends influenced acquisition policy, highlighting a shift toward data-informed decision-making. Although the library faced challenges in accurately assessing user demand, it ultimately managed to align acquisitions with user needs. Siddiqui (2003) addressed the integration of internet tools into the acquisition workflow. The author emphasized the benefits of digital selection and ordering processes, while also cautioning against potential pitfalls such as unreliable sources and licensing issues. This study reflects the early phases of digital transformation in acquisition practices. Challenges and Strategies in Resource-Limited Environments. Agboola (2000) analysed acquisition challenges in a Nigerian university library and documented the role of external funding, particularly from the World Bank, in strengthening collections and staff capabilities. The author advocated for greater faculty involvement in selection to ensure academic alignment. Ajidahun (2008) explored similar issues in Nigerian university libraries, pointing out bureaucratic constraints, including taxes on book supplier payments. Recommendations focused on revising financial procedures and expanding acquisition practices through collaboration and reform. Edem (2010) further highlighted the acquisition difficulties at the University of Calabar Library. The study pointed to limited subject coverage, issues with foreign-language resources, and rising demand for electronic materials. Edem emphasized the value of cooperative networks and resource-sharing partnerships to address collection development gaps in the digital age. Role of Gifts and Exchanges in Collection Building Aguolu, Bukar, and Idakwo (2002) evaluated ten Nigerian academic libraries and reported that many relied on gifts and exchanges due to limited funding. While acknowledging that these strategies supplemented collections, the authors warned against over-reliance on them, emphasizing that purchases remain essential for maintaining balanced collections. Massey (2005) conducted a case study at the Thomas Cooper Library, University of South Carolina, offering practical guidelines for managing gift

materials. The author highlighted workflows for processing and integrating gifts in a way that benefited both the library and donors. User-Initiated and Demand-Driven Acquisition Models. The rise of patron-driven acquisition (PDA) has generated both enthusiasm and concern among library professionals. Herrera and Greenwood (2011) reviewed a patron-initiated purchasing program at the University of Mississippi Libraries. The program was evaluated after one year, and modifications to workflows and criteria were made based on the feedback from subject librarians and the Collection Development Steering Committee. Martin and Zaghloul (2011) examined acquisition practices at the University of Arizona Libraries, emphasizing the importance of training programs for staff. Well-planned training initiatives were seen as essential for maintaining acquisition efficiency and adapting to emerging trends. Walters (2012) provided a critical perspective on PDA, arguing that while it promotes efficiency, it may compromise long-term collection goals. He contended that PDA risks favouring short-term student preferences over broader educational needs and may marginalize the expertise of professional librarians. Digital Resource Acquisition and Licensing Issues. Benny (2015) studied the acquisition of electronic resources in colleges under Mumbai University. The findings revealed that e-journals dominated the e-collections, and librarians faced challenges related to licensing, access, and preservation. Although various tools and methods were employed for acquisition, the lack of a unified strategy or agreement on e-resource management posed significant limitations. Strategic Planning and User Needs Assessment. Onoriode and Ivwighreghweta (2013) emphasized the importance of user needs assessment in planning the selection and acquisition of library resources. The authors advocated for the implementation of automated systems that align with institutional goals and support dynamic acquisition practices.

2.6 Circulation Analysis:

Academic libraries operate within dynamic educational environments that require continual alignment of collections with user needs and institutional priorities. Circulation analysis has emerged as a critical empirical tool for evaluating resource usage and guiding collection development decisions. Day and Revill (1995) demonstrated at Liverpool John Moores University that circulation statistics could identify strengths and weaknesses in subject collections and support more equitable budget distribution. Liftman and Connaway (2004) examined the usage of print books and e-books over a sixteen-month period at Duke University Libraries, revealing user preferences that supported the integration of electronic resources into academic collections. Brush (2007), in a focused study of engineering monographs, found that users predominantly circulated books published within the past decade, indicating a strong disciplinary demand for current materials. Adams and Noel (2008) conducted a case study at Swain Hall Library and uncovered inefficiencies in acquisitions through circulation data, identifying numerous underutilized titles and advocating for data-driven purchasing practices. Collectively, these studies affirm that circulation analysis enables libraries to assess resource relevance, optimize acquisitions, and maintain responsive, user-centered collections that reflect both contemporary academic needs and budgetary prudence.

2.7 Library Resource Sharing:

Resource sharing is a foundational strategy in library services, enabling institutions to extend access beyond their own collections and address rising information costs and user demand for digital access. Sessions, Pettitt, and Van Dam (1995) presented Ohio LINK as a pioneering example of consortia collaboration, allowing users to request materials directly from partner libraries in a patron-initiated, non-mediated system that unified public and private

academic institutions. Alvi (1997) emphasized resource sharing as a practical response to the dual pressures of information overload and escalating acquisition costs, advocating for collaborative models to sustain service quality. Technological advancements, particularly union catalogues, have enhanced inter-library loan (ILL) services by facilitating both physical and electronic document delivery; Gatenby (2003) noted the role of tools like EUCAT in improving integration and user access, even as physical formats continue to dominate ILL transactions. Ruppel (2006) highlighted the cost-effectiveness and academic relevance of ILL materials, reinforcing its value in academic support. Internationally, Cho (2007) proposed a cooperative university network in South Korea to reduce dependency on foreign sources and recommended integrating resource-sharing metrics into institutional evaluations. In Iran, Biranvand and Moghaddam (2013) explored the expansion of ILL services in public libraries, identifying barriers but endorsing broader implementation for enhanced public access. Similarly, Undhjem and Tveikra (2016) found that Norwegian public libraries viewed ILL positively despite some contention over lending restrictions. To optimize ILL operations, Ahmadi, Dileepan, and Murgai (2013) introduced a forecasting model using a centred moving average with seasonal variation, closely aligning with actual usage trends and offering a planning tool for service efficiency. However, digital resource sharing remains fraught with legal challenges; Muller (2012) argued that existing copyright laws inadequately support e-book lending and called for legal reforms to accommodate digital library practices. Changing user behaviours further impact resource sharing; Glover (2016) documented declining ILL use in NHS libraries in England, attributing it to increased availability of online journals and open access resources. Overall, the literature underscores resource sharing as a dynamic and essential component of library service, shaped by technological, legal, and behavioural factors. Libraries must continue adapting their practices and advocate

for legal frameworks that support equitable and efficient access in an increasingly digital environment.

2.8 Collection Evaluation:

Collection evaluation is a critical function in academic libraries, serving as the foundation for informed collection development and resource allocation. As academic needs evolve, so must the tools and frameworks for evaluating collections. Over the decades, scholars and practitioners have contributed various perspectives on how to measure the effectiveness, relevance, and utility of library holdings. This article reviews key contributions in this area, emphasizing conceptual frameworks, methodological approaches, technological integration, and user-oriented strategies. Coale (1965) was among the first to highlight the challenges of evaluating large book collections objectively, citing the lack of standardized lists and labour-intensive processes. His recommendation to use subject bibliographies offered a systematic, albeit time-consuming, solution. Hyman (1989) added nuance by discussing the paradox of control versus usage, arguing that librarians often prioritize accessibility over mere orderliness. These early works emphasized the tension between practical constraints and aspirational goals of collection development. As library collections expanded to include interdisciplinary materials and electronic resources, traditional evaluation methods proved insufficient. Dobson, Kushkowski, and Gerhard (1996) called for tailored models for interdisciplinary fields, suggesting the use of online catalogues and the internet for better alignment with program needs. Lotlikar (1997) advocated for faculty involvement and reliance on circulation data, noting low user engagement as a concern. Intner (2003) debunked prevalent myths in collection evaluation and stressed the importance of strategic planning based on usage patterns. Agee (2005) further outlined three key methods—user-centred, physical, and subject-specific evaluations—highlighting that libraries of any size

could implement effective assessments. Smith (2006) and Tucker (2007) emphasized the value of inventories and strategic evaluations, despite their time-consuming nature, to uncover strengths and weaknesses in library holdings. Borin and Yi (2008, 2011) advanced the field by proposing a flexible, multidimensional model integrating usage data and environmental analysis. Their framework allowed libraries to tailor assessments to institutional goals. Meanwhile, Kim, Lee, and Park (2009) introduced the user-side h-index, a novel visualization tool leveraging network analysis to map subject usage. Prathap and Mittal (2010) compared h-index and p-index metrics, offering deeper insights into subject-level performance based on circulation data. Citation analysis remains a widely accepted method. Talaković (2012) and Hayati (2016) demonstrated its value in identifying frequently used resources and user preferences. These studies emphasized that understanding citation behaviour helps in curating collections aligned with user needs. Bolton (2009) used OPAC-based assessments in Women's Studies to show that even challenging interdisciplinary fields can build strong collections through careful evaluation. The digital transformation of libraries has reshaped user expectations. Ciszek and Young (2010) and Hyodynmaa et al. (2010) observed that user needs had shifted significantly, necessitating more dynamic evaluation tools. Duncan and O'Gara (2015) emphasized flexibility in collection strategies to meet diverse demands. Laskowski, Abbott, and Norman (2015) found that increased electronic resource selection had boosted usage rates. Ray (2018) highlighted the importance of physical verification in identifying loss and informing administrative policy. Usman et al. (2019) revealed that targeted collections, such as Arabic materials, significantly enhanced user satisfaction when aligned with user needs. Jurczyk and Jacobs (2014) illustrated how consortia could assess Big Deal packages using weighted algorithms for utility and value. Wiley, Chrzastowski, and Baker (2011) explored discrepancies between materials purchased versus those available, urging libraries to reconsider monograph acquisitions. Lim Li Min and Casselden

(2021) evaluated patron-driven acquisitions at SMU Libraries, confirming that this user-driven approach met research needs but revealed a gap in user awareness regarding available resources.

2.9 Weeding:

Weeding, or deselection, is an essential component of library collection management that ensures materials remain relevant, accessible, and aligned with evolving user needs. Over four decades of literature emphasize the need for systematic and policy-driven approaches. Hammond (1979) reported on a structured six-month initiative at the Kenosha Public Library that demonstrated the value of procedural clarity and long-term planning. Similarly, Engle (1983) advocated for a formal deselection policy at Emory University to address gaps in collection development. As digital resources became increasingly dominant, libraries faced challenges related to space and format integration. Banks (2002) described efforts at Southeast Missouri State University to reduce print holdings and accommodate electronic resources, while Mix (2010) highlighted the influence of user preferences in driving weeding decisions. Handies (2007) and Muthu (2013) stressed the necessity of clear policies and adaptable guidelines for effective weeding in various library settings. Methodological advancements have further strengthened deselection practices. Dubicki (2008) encouraged a step-by-step, collaborative approach involving faculty to reduce resistance. Arbeeny (2014) presented a low-resource model using Excel filters for small institutions, and Lugg (2012) developed metadata-based batch tools to streamline large-scale deselection. Mansilla (2015) introduced a structured evaluation framework based on measurable indicators, while Oliva (2016) and McAllister and Scherlen (2017) detailed criteria-based strategies to manage space and maintain collection currency. Emotional and organizational factors also play a significant role in weeding. Reno (2017) examined staff experiences and found emotional responses

were shaped by institutional culture and communication, emphasizing the importance of leadership and emotional intelligence. Khanchandani (2018) explored the institutional challenges to systematic weeding at IIT Delhi, highlighting the need for advisory committees and transparent criteria. Disposal practices remain a sensitive issue, with Calvert (2018) recommending sustainable methods such as donation, resale, recycling, and creative reuse to minimize negative public perception. In large institutions, weeding has expanded into collaborative and data-driven projects. Nelson et al. (2020) described a review of over 350,000 items at Brigham Young University, supported by GIS mapping and stakeholder feedback tools. Proctor (2021) documented Penn State's ongoing weeding initiative in preparation for renovations, emphasizing strategic planning and collaboration. Collectively, these studies present weeding as both a technical and strategic function that benefits from data-driven tools, institutional support, clear policies, and sensitivity to staff and public concerns. As libraries adapt to digital landscapes and shifting user expectations, deselection remains a vital process for maintaining effective, user-centred collections.

2.91 Collection development of Electronic Resources:

The shift from print to digital formats has significantly influenced library collection development, demanding adaptive policies, technological integration, and collaborative strategies. Seetharama (1997) emphasized the importance of adopting new technologies and promoting cooperative collection development alongside effective resource evaluation. Shukla and Mishra (2011) noted that digital transformation necessitates updated collection development policies with well-defined criteria for electronic resource selection. Ashcroft and Langdon (1999) discussed challenges related to selecting and licensing e-journals, highlighting the financial and administrative complexities involved. Vignau and Quesada (2006) reinforced the need to continuously revise selection criteria to

remain aligned with the evolving electronic information landscape. In the Indian context, Kaur and Walia (2016) identified subject coverage, licensing terms, and vendor support as crucial considerations in developing digital collections in management libraries. Gyeszly and Carrothers (1999) introduced a hybrid model that combined digital and print resources to address diverse user needs in the Policy Sciences and Economics Library. Budget constraints and the escalating costs of electronic resources were flagged by Ashcroft and Langdon (1999), as well as Kaur and Walia (2016), while Seetharama (1997) called for stronger institutional support and dedicated financial planning. Kumar (2013) recommended that collection development policies incorporate qualitative assessment criteria to optimize limited budgets. Balnaves (2005) and Joint (2006) advocated for resource sharing, digital preservation, and inter-institutional collaboration to improve access and sustainability. Zamlynska, Tarkowski, and Rosiek (2010) presented Poland's YADDA platform as an open-access initiative that exemplifies successful resource sharing and digital dissemination. Joint (2006) also emphasized the importance of digital literacy training for both staff and users to navigate complex digital environments. Jena (2012) and Kaur and Walia (2016) noted that electronic resources have reshaped academic libraries into dynamic digital environments, underscoring the importance of proactive acquisition and digitization strategies. Collectively, the literature demonstrates that electronic resource collection development requires responsive and flexible policies that integrate technological change, user needs, financial constraints, and collaborative practices.

2.92 Budget and Funding:

According to Gopinath (1982), financial norms for collection development in libraries are shaped by multiple factors, with the primary determinant being the extent of usage. These influences are evident in contemporary library budgeting

practices. Clayton (2001) emphasized the importance of sound budgetary planning in libraries, asserting that a well-funded and transparent budget system supports user demands and builds institutional trust through regular audits and stock verification. Roberts (2001) explored the historical evolution of academic library budgeting, contrasting fixed-budget models with more dynamic user-access-based approaches that align resource allocation with usage patterns. Smith (2008) proposed a percentage-based allocation model that distributes funds based on academic program needs, promoting transparency and alignment with curricular priorities. Joint (2009) highlighted the fiscal advantages of digital resources, suggesting that gradual adoption of e-resources can offer cost-effective solutions while increasing access and saving physical space. Chaputula and Boadi (2010) examined budget constraints in the University of Malawi's Chancellor College Library, noting reliance on donations and advocating for increased public funding and strategic partnerships to support collection development. Steele (2011) presented practical, low-cost digital strategies, such as integrating open-access e-books and using the Gift and Deselection Manager (GDM) tool to optimize acquisitions and weeding processes. These studies collectively underscore the critical role of financial planning in sustaining and advancing library collections amid growing user demands and shifting technological landscapes.

2.93 Collection Development in Academic Libraries:

Collection development remains a foundational function of academic libraries, encompassing selection, acquisition, evaluation, and deselection of resources to meet institutional teaching, learning, and research needs. Numerous studies underscore the necessity of written policies for guiding collection development decisions. Andrade and Vergueiro (1996) reported challenges faced by Brazilian academic libraries in evaluating their collections, while Odini (1997) and Taylor

(1999) advocated for policy frameworks tailored to reserve and non-print collections. Gessesse (2000) and Kiondo (2004) emphasized collaborative policy formulation, especially in the context of electronic resource selection. In Indian contexts, Kumar, Kumar, and Pandey (2017) identified gaps in policy implementation, and Patel (2016) stressed the importance of evaluating current collections for both qualitative and quantitative improvements. Digital transformation has emerged as a central theme, with Prasad (2011) and Khandare (2013) promoting the integration of ICT to digitize resources and enhance user access. Dash (2016) and Mal, Bajpai, and Chakraborty (2013) analyzed the shift from print to digital formats, while Munro and Philips (2008) highlighted the slow uptake of e-books in Australian libraries. Indian studies by Khan and Bhatti (2016) and Pandita and Singh (2016) documented the increasing predominance of e-resources and the corresponding need for librarian expertise and user education. User participation plays a critical role, as noted by Singh (1999) at IIT and Mir (2016) in Baramulla, both highlighting the influence of user feedback on acquisitions. Kalitsi (2009), Tiwari, Tiwari, and Singh (2014), and Giri, Sen, and Mahesh (2015) further supported the development of user-responsive collection practices. Budgetary constraints were identified as a major challenge by Khan and Khan (2010), Pandita and Singh (2016), and Das (2015), all urging the alignment of acquisitions with financial capacities and usage priorities. Attention to special formats such as grey literature was discussed by Kargbo (2005), while Covi and Cragin (2004) argued for evaluative frameworks inclusive of emerging formats. Addressing skill gaps, Mutula and Makondo (2003) and Khan and Bhatti (2016) called for continuous librarian training to manage digital resources effectively. Collectively, these studies recommend establishing formal collection development policies, incorporating digital resources, fostering user involvement, managing budgetary limitations, and adopting collaborative approaches to ensure academic libraries remain responsive and relevant.

2.94 Conclusion:

The researcher examined a total of 151 relevant literature, which predominantly focused on different types investigations across various academic institutions, including universities, colleges, engineering colleges, medical colleges, law college, schools, as well as public and specialized libraries. However, no prior research has specifically explored the utilization of book usage data as a foundation for developing a collection development policy in a university library. This distinction underscores the uniqueness of the present study, which diverges from existing literature in terms of scope, coverage, and objectives.

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CHAPTER -3

LIBRARY AND HIGHER EDUCATION

"A library is more important than a university because a library can function without a university, whereas a university cannot do without a library."

– Shankar Dayal Sharma

(Vice President of India; World Book Fair, 5th February 1988)

3.1 Definitions:

A library is an institution committed to the systematic collection, organization, preservation, and dissemination of information. Traditionally conceptualized as a physical space housing books, journals, newspapers, and other media, the modern library encompasses both physical and digital platforms. Its primary mission is to ensure equitable access to knowledge, fostering education, research, and cultural enrichment.

A library is a curated collection of documents and resources organized for use. It functions as an institution that facilitates access to information and supports the dissemination of knowledge. Libraries are generally named according to the nature of their services and the communities they serve—such as public libraries, academic libraries, or special libraries.

Academic libraries are further categorized based on their institutional affiliation:

- School libraries – attached to primary or secondary educational institutions

- College libraries – serving the needs of undergraduate institutions
- University libraries – supporting advanced research and comprehensive academic programs

According to ALA Glossary of Library and Information Science, a university library is defined as "a library, or system of libraries, established, supported and administered by a university to meet the information needs of its students and faculty and support its instructional, research and service programs." It is said or agency which elsewhere that there is only one institution remains and serves as the last bastion of intellectual freedom. peace, happiness and survival for man and that is library. particularly the university library.

A university library, in the context of higher education these days plays the most cardinal role which the various commissions on higher education in India and abroad have ventured to call it by quite impressive terms, such as "the heart of the university," "fulcrum of university education," "the workshop of the scholars," "the laboratory of the learned," and so on. And, Carlyle's description personifying a collection of books true university is indeed very appropriate these days. University library is thus an important organisation maintained by a university to support and promote research, its teaching, extension and publication programmes.

Higher education is dependent on the books and other reading material and the information contained in them. Teachers and students have to draw heavily on books and periodicals to keep themselves up-to-date with the latest development in their subject areas. Class room lectures may at best serve as sign posts but the real learning is possible by using the books and periodicals available in the library. Higher education cannot be textbook-centred; the students will have to be exposed to the wide and varied world of books for learning the subject thoroughly. Such an exposure may arouse the critical faculty among the students and help them to attain better heights in learning and scholarship. Higher education is thus

dependent for its success on the extensive and intensive use of literature. University library, as an equal partner in higher education, undertakes the responsibility of locating, procuring, and supplying the right type of literature to the teachers, scholars and students at the right time. It also organises and gives access to information pin-pointedly, exhaustively and expeditiously and makes the selection and control as easy, acceptable and quick as possible.

3.2 The Background:

3.2.1 Ancient Period: India's tradition of higher education dates back to around 1000 B.C., when centres of learning were primarily devoted to imparting Vedic knowledge. These early institutions differed significantly from contemporary universities in both form and purpose. Ancient Indian education, rooted in the Vedic traditions, focused on holistic development—nurturing the intellect, body, and moral character through values like humility and self-discipline. Learning took place in Gurukuls, Ashrams, and temples, often nestled in natural settings, where knowledge was shared orally through storytelling, memorization, and debate.

In ancient India, learning methods were deeply personalized and primarily oral, designed to align with each student's cognitive abilities. Memorization played a critical role due to the absence of written texts, while explorative learning encouraged students to investigate concepts independently and creatively. Central to this approach was the "Triveni" method—*Shravana* (listening), *Manana* (reflection), and *Nididhyasana* (deep contemplation)—which fostered deep intellectual engagement. Storytelling served as an effective pedagogical tool, bringing abstract ideas to life, while interactive dialogues through question–answer formats nurtured analytical thinking. Education was highly experiential, with practical application emphasized over theoretical learning, and frequent seminars and debates refined students' oratory and critical reasoning skills.

The curriculum spanned scriptures, sciences, arts, and philosophy, with higher centres like Takshashila and Nalanda attracting global scholars. While the system emphasized personal growth and practical learning without state interference, it also reflected social limitations—excluding women and marginalized castes from equal access.

3.2.2 Early Common Era to High Middle Ages: During this period, India emerged as a vibrant hub of intellectual and cultural exchange. Renowned scholars such as Xuanzang and Yi Jing travelled from China to study Buddhist philosophy at Indian institutions, while Indian monks like Dharmadeva of Nalanda journeyed to China to translate sacred texts. Vikramshila fostered close academic ties with Tibet, with eminent teachers like Atisa contributing significantly to cross-cultural Buddhist scholarship.

Royal patronage flourished under dynasties like the Rastrakutas and Cholas, who invested in the establishment of educational institutions, provided residential facilities, and supported scholars through state sponsorship. Temple schools—such as those at the Nataraja Temple in Chidambaram—served as centres of organized learning, employing teams dedicated to manuscript copying, textual verification, and preservation.

As Buddhist institutions gradually waned, a revival of Brahmanical traditions took root, though centres like Uddandapura—patronized by the Palas—continued to thrive, especially as focal points of Tantric Buddhist education.

By the 11th century, India's scientific and technological knowledge was well established, a fact meticulously chronicled by the Islamic scholar Al Biruni. However, subsequent invasions from the northwest began to destabilize traditional systems of learning and interrupted the longstanding scholarly continuity.

3.2.3 Late Middle Ages to the Early Modern Era: During the Late Middle Ages to the Early Modern Era, the education system underwent a profound transformation under Islamic and Mughal influence. The primary goal was the dissemination of Islamic principles, with a curriculum that combined religious studies—such as the Quran, Arabic and Persian language, and calligraphy—with secular subjects like grammar, political science, philosophy, and trade. Instruction centered on oral recitation, memorization, and practical learning rather than formal assessments.

Educational institutions were organized into *maktabs* (primary) and *madrasas* (higher education), often supported by royal patronage and local elites. Prominent centres of learning flourished in Delhi, Agra, Jaunpur, and Bidar. Emperor Akbar introduced forward-looking reforms, integrating Hindu philosophy and a broader array of secular disciplines into the madrasa curriculum.

In the Late Middle Ages to the Early Modern era, education in India became a synthesis of Islamic and indigenous traditions. Madrassas like Madrasah-i Rahimiyah and Firangi Mahal pioneered structured curricula, such as the *Dars-i-Nizami*, that fused religious instruction with logic, astronomy, and mathematics. Akbar's inclusive vision encouraged the study of medicine, agriculture, geography, and Sanskrit texts, while later rulers like Aurangzeb supported instruction in subjects relevant to administration. This era reflected a growing shift toward systematic, multidisciplinary education rooted in both spiritual and rational inquiry.

3.2.4 Colonial Period – Modern Age: Saint Paul’s College, founded by the Jesuits in Goa in 1542, marked a major introduction of the European college system and printing technology to India. By 1556, it hosted the region’s first printing press, initiating a new era in knowledge dissemination. French traveller François Pyrard de Laval, who visited in 1608, noted the college’s impressive curriculum, offered freely, and its diverse student body of 3,000 individuals from

across Asia. The college also boasted one of the largest libraries in Asia, serving as a major intellectual and cultural hub in the early modern era.

The foundations of the modern Indian education system, however, are deeply rooted in the colonial legacy. During British rule, the university system was leveraged as an instrument of cultural imperialism. Initially overseen by the East India Company, educational initiatives were later assumed by the British Parliament and eventually by direct colonial governance.

The East India Company's first notable contribution to higher learning was the establishment of the Calcutta Madrasa in 1781. This was followed by the founding of the Asiatic Society of Bengal in 1784, the Benaras Sanskrit College in 1791, and Fort William College in 1800. A significant shift occurred with the Charter Act of 1813, which formally acknowledged education as a state responsibility and lifted restrictions on missionary activity. This enabled the foundation of Serampore College in 1818 by evangelical Christian missionaries.

A turning point came with Thomas Babington Macaulay's contentious "Minute on Education" in 1835, which championed Western education over traditional Oriental learning. This ideological shift culminated in the establishment of India's first modern universities in 1857: the University of Bombay (now Mumbai), the University of Calcutta (now Kolkata), and the University of Madras (now Chennai). These were followed by the University of the Punjab in 1882 and the University of Allahabad in 1887, marking the gradual institutionalization of British-model higher education across the subcontinent.

British oversight of the Indian education system persisted until the enactment of the Government of India Act in 1935, which devolved greater administrative authority to provincial leaders and initiated the gradual process of "Indianisation" in education. This transitional phase saw increased emphasis on physical

education, vocational training, and the launch of foundational education schemes aimed at broader societal engagement.

3.2.5 Post Independence Period: By the time India achieved independence in 1947, the higher education landscape comprised 20 universities and 496 affiliated colleges, serving a student population of 241,369. Recognizing the need for educational reform and expansion, the Government of India established the University Education Commission in 1948 to guide the development and enhancement of higher education.

The 1960s and 1970s marked a period of significant state intervention, with the establishment of numerous publicly funded universities and colleges. Simultaneously, the government extended financial support to privately managed institutions, leading to the emergence of private aided—or grant-in-aid—colleges within the system.

Despite political independence, the curriculum in Indian higher education continued to prioritize the humanities and classical languages well into the 1980s. Exceptions to this trend were notable professional institutions such as the Indian Institutes of Technology (IITs), Birla Institute of Technology and Science Pilani (BITS), Regional Engineering Colleges (RECs), and Indian Institutes of Management (IIMs). These institutions, often influenced by American models and backed by foreign funding, gradually introduced a more global and technical orientation in Indian education.

Nevertheless, the educational system continued to favour colonial English over more accessible forms of English, diverging from practices in other ESL nations. This preference reflected the entrenched belief that linguistic complexity implied intellectual sophistication—often at the expense of effective knowledge dissemination and pedagogical clarity.

In the post-1980s era, shifting global economic trends, diminished foreign investment, political uncertainties, a depreciating currency, and administrative challenges hampered the expansion of state-funded institutions. This environment facilitated an expanded role for the private sector, which increasingly filled the gaps in higher education provision.

3.3 Changing Policy on Higher Education in India:

Since the early 20th century, India has witnessed the establishment of several high-level commissions tasked with shaping policy direction in higher education. Among the earliest and most influential was the Sadler Commission (1917–19), also known as the Calcutta University Commission. Its recommendations led to the creation of the Central Advisory Board of Education (CABE), which aimed to articulate the overarching goals of educational policy and to ensure coordination among provinces and universities—particularly in managing the costs and scope of higher education, while preventing duplication of efforts.

In 1949, the University Education Commission, chaired by Dr. S. Radhakrishnan, proposed that university education be placed under the Concurrent List to ensure consistent national standards. Although this proposal was not immediately accepted by the Constituent Assembly, the recommendation was eventually implemented through the 42nd Constitutional Amendment in 1976, which officially placed education in the Concurrent List.

Subsequently, the Kothari Commission (1964–66) delivered a landmark report examining education at all levels. Its comprehensive and visionary recommendations informed the formulation of the first National Policy on Education (NPE) in 1968. Among its key contributions were the adoption of a uniform 10+2+3 education structure and the inclusion of science, mathematics, and work experience as essential components of school curricula. This period also saw the beginning of reforms at the undergraduate level, the establishment of

Centres of Advanced Study, and efforts to forecast national requirements for skilled human resources.

In 1985, a thorough assessment of the existing education system was undertaken, sparking a nationwide debate. While earlier efforts had yielded significant achievements, the review revealed that the objectives laid out in the 1968 policy lacked corresponding implementation mechanisms, specific accountability frameworks, and adequate financial and organizational support. Persistent challenges around accessibility, quality, relevance, and financing had reached critical levels, necessitating urgent intervention.

Against this backdrop, the National Policy on Education (NPE), 1986 was adopted. The preamble of the policy acknowledged that Indian education stood at a defining juncture—one that required bold, transformative measures rather than incremental improvements. Emphasizing its acculturating function, the policy recognized education as a foundation for national unity, scientific temper, individual autonomy, and the ideals of socialism, secularism, and democracy. It underlined education's role in workforce development and as a bedrock for scientific research and innovation—essential for achieving national self-reliance. The 1986 policy was further reinforced by a Programme of Action (PoA) introduced in 1992.

In retrospect, many of the recommendations articulated in the NPE 1986 and PoA 1992 have been only partially realized. Moreover, there has been little substantive effort to reassess or revise these policy frameworks. The sweeping economic reforms introduced in the early 1990s—ushering in liberalization and market-driven growth—had profound implications for higher education, yet these shifts were not adequately reflected in subsequent educational planning.

In the post-reform era, the private sector emerged as a pivotal force in national development. However, the policy instruments governing higher education, such

as the University Grants Commission (UGC) Act and the All India Council of Technical Education (AICTE) Act, have struggled to keep pace with changing realities and now appear increasingly outdated. In light of these challenges, there is a pressing need to craft a forward-looking, coherent national policy for higher education—one that aligns with both current imperatives and future aspirations. Such a framework must be developed through an independent, expert-led commission, free from political interference, and grounded in academic integrity and institutional autonomy.

India's current education system is the cumulative result of a long evolution rooted in landmark policies and commissions spanning over two centuries. Structural reforms like the 10+2+3 and now the 5+3+3+4 system reflect the legacy of commissions such as Sadler and Kothari, which emphasized stage-based education and national development. Governance changes, particularly the 42nd Amendment, decentralized authority and enabled both central and state innovation. The integration of experiential learning, multilingual instruction, and vocational education stems from the philosophies of Basic Education and the three-language formula. Policies like NPE 1986 and the RTE Act of 2009 laid the foundation for inclusive education, focusing on equity and universal access. Meanwhile, early childhood education gained momentum with the ECCE Policy of 2013, influencing NEP 2020's focus on foundational literacy. In higher education, ideals of autonomy, interdisciplinarity, and research—championed by the Radhakrishnan and Kothari Commissions—are now seen in the push for MERUs and the National Research Foundation. Finally, digital expansion in education owes much to the foresight of NPE 1986, now manifest in platforms like DIKSHA and SWAYAM. These policies collectively affirm education's role as a transformative force in nation-building.

Education Policy Reform Table

Year/Period	Event/Policy/Commission	Key Features & Impacts
1813	Charter Act	First official allocation of ₹1 lakh for education; aimed to promote science and literature.
1835	Macaulay's Minute & Bentinck's Resolution	Advocated English as medium of instruction; pivot to Western education and science.
1854	Wood's Despatch	Known as "Magna Carta of Indian Education"; introduced grants-in-aid, universities in Bombay, Calcutta, Madras.
1882	Hunter Commission	Focused on primary education and role of missionaries and local bodies.
1904	Indian Universities Act	Reorganized university administration; emphasis on research and inspection.
1917–19	Sadler (Calcutta University) Commission	Proposed the 10+2+3 structure; suggested reforms in secondary and university education.
1921	CABE (Central Advisory Board of Education) established	Coordinated national educational policy (later restructured in 1935 & 1945).
1929	Hartog Committee	Emphasized quality over quantity; warned against wastage and stagnation in primary education.
1935	Government of India Act	Made education a provincial subject; introduced provincial autonomy.
1937	Wardha Scheme	Proposed "Basic Education" (Nai Talim); learning through productive work.
1944	Sargent Plan	Blueprint for universal education in 40 years; focused on pre-primary, adult literacy, vocational streams.
1948–49	University Education Commission (Radhakrishnan)	Focused on higher education, rural colleges, teacher training, Indian languages.

1952–53	Secondary Education Commission (Mudaliar)	Recommended diversification of curriculum, vocational education, and physical welfare.
1961	NCERT Established	National Council of Educational Research and Training to develop curriculum and teacher training.
1964–66	Kothari Commission	Advocated education for national development, vocationalisation, and common school system.
1968	First National Policy on Education	Emphasized compulsory education, equal opportunity, adult literacy, and science education.
1976	42nd Constitutional Amendment	Moved education to the Concurrent List—joint responsibility of Centre and States.
1986	New National Policy on Education (NPE)	Focused on equity, Operation Blackboard, women's education, vocational streams, and tech integration.
1992	Revised NPE & Programme of Action	Built on 1986 reforms; emphasized state-level POAs and decentralization.
1992	Janardan Reddy Committee	Reviewed SC/ST education; promoted common school system and appointment of AICTE.
2005	Kerala Introduces Grading System	Shift from marks-based to grades; aimed at reducing student stress and promoting holistic learning.
2009	Right to Education Act (RTE)	Made free and compulsory education a fundamental right for children aged 6–14.
2013	National ECCE Policy	Institutionalized care and learning for 0–6 year-olds
2020	National Education Policy (NEP 2020)	Overhauled structure to 5+3+3+4 system; emphasized multidisciplinary learning, foundational literacy, critical thinking, and digital integration.

3.4 Recent Developments in Indian Higher Education:

In recent years, higher education in India has emerged as a focal point of national discourse, driven by four primary factors. First, the inadequacies of the current higher education system are frequently cited as contributing to widespread skill shortages across various sectors of the economy. Second, the implementation of reservation quotas in premier institutions—often gateways to prestigious and well-compensated careers—has become a politically charged issue. These quotas lie at the heart of debates surrounding inclusive growth and distributive justice. Third, in light of these challenges, concerns have been raised that the country's sustained economic growth and global competitiveness are contingent on resolving systemic issues in higher education. Lastly, the burgeoning demand for higher education, propelled by a youthful population, improvements in school-level education, and the aspirations of an expanding middle class, continues to outstrip the available supply.

Amidst these dynamics, it is widely recognized that India's demographic advantage and technological progress present a critical opportunity to harness its vast human capital. Realizing this potential, however, necessitates a thorough transformation of the higher education sector. In response, multiple initiatives have been launched aimed at expanding capacity, enhancing quality, and addressing systemic deficiencies. The National Knowledge Commission (NKC), established to examine the sector among other mandates, offered a range of insightful and forward-looking recommendations.

To support these reforms, the Government of India significantly increased public investment during the Eleventh Five Year Plan period. Numerous new institutions have been proposed and many are already operational. While the plan document includes several commendable ideas, the overall implementation reveals a lack of coherence. Several initiatives appear fragmented, occasionally even

conflicting, and many proposals seem to be shaped more by individual opinion than by robust empirical evidence.

As a result, the higher education reform landscape lacks a unified, strategic framework. In the absence of reliable data and rigorous analysis, public discourse—often shaped by media narratives—has tended to reinforce certain misconceptions, thereby hindering the development of a sound and sustainable reform agenda.

3.4.1 Present Scenario of Indian Universities:

India's higher education system consists of 1,213 universities, categorized into four main types. Central universities number 57, making up about 4.7% of the total. State universities follow with 502 institutions, representing approximately 41.4%. Deemed-to-be universities account for 142, which is around 11.7% of the total universities. The largest group is private universities, with 512 institutions, constituting about 42.2% of all universities. This data highlights that private and state universities together form the majority, while central and deemed universities contribute a smaller but important portion to the overall university system in India.

The status distribution of Indian universities reveals a varied classification system across the total of 1,213 institutions. The majority, 699 universities, fall under the 2(f) category, representing approximately 57.6% of the total. Universities classified under both 2(f) and 12(B) status number 368, making up about 30.3%. Category-I universities are the smallest group, with only 4 institutions, accounting for roughly 0.3%. Section-III universities total 97, which is around 8%, while those under both Section-III and 12(B) status number 45, comprising about 3.7% of all universities. This distribution shows that most universities have recognition under section 2(f), with a significant portion also meeting the additional 12(B) criteria, reflecting their eligibility for central assistance and

funding. The smaller groups under Category-I and Section-III indicate specialized classifications within the Indian university system.

3.4.1.1 Analysis of State-wise Distribution of Indian Universities:

The Indian higher education landscape, comprising 1,213 universities, exhibits substantial variation in distribution across states and union territories. This dispersion reflects diverse socio-economic contexts, demographic demands, and policy priorities.

3.4.1.1.1 High-Density States: Uttar Pradesh leads with *104 universities* (approximately 8.6% of the national total), followed closely by Gujarat with *100*, and Maharashtra and Karnataka with *89* each. These states benefit from a combination of factors—large populations, robust economic bases, and longstanding investment in educational infrastructure—making them pivotal contributors to the national academic ecosystem. Rajasthan (*90*) and Madhya Pradesh (*86*) also feature prominently, suggesting an emphasis on regional access to higher education.

3.4.1.1.2 Moderately Represented States: States like Tamil Nadu (*59*), Andhra Pradesh (*47*), Uttarakhand (*42*), Odisha (*39*), Telangana (*38*), Punjab (*36*), Jharkhand and Chhattisgarh (*34* each), and Bihar (*33*) form a mid-tier cluster. While these regions show commendable growth, there remains scope to strengthen institutional diversity and quality assurance mechanisms to match rising enrolment and research demands.

3.4.1.1.3 Lower Representation but Strategic Presence: States including Assam (*32*), Delhi (*28*), Himachal Pradesh (*25*), Kerala (*19*), and West Bengal (*55*) reflect either geographical constraints or more selective licensing. For example, Delhi's relatively low number of universities is offset by their national prominence and central funding. Similarly, Kerala maintains a focus on quality over quantity, consistent with its high literacy and educational attainment levels.

3.4.1.1.4 Least Represented and Smaller Territories: Union Territories and northeastern states show limited university presence—Andaman & Nicobar Islands (*1*), Goa and Mizoram (*2* each), Chandigarh, Ladakh, and Puducherry (*3* each), Sikkim (*12*), Arunachal Pradesh and Jammu & Kashmir (*11* each), Meghalaya (*11*), Manipur (*10*), Tripura (*8*), and Nagaland (*5*). While these numbers appear small, many of these regions operate under special central schemes or host institutions with targeted mandates (such as tribal education, environmental studies, or strategic regional integration).

3.4.2 Implications for Policy and Infrastructure Planning:

The data underscores a need for region-sensitive strategies. States with low university density—especially in the northeast and isolated union territories—require augmented public investment and incentives for private participation. Conversely, overrepresented states must prioritize quality assurance, research output, and inclusivity. Integration of open and digital universities may further balance accessibility challenges in remote areas.

Type of Institutes	**Number of Institutions**
University	1213
Colleges	45473
Senior Secondary	112637
Secondary	139539
Upper Primary	429624
Primary	840546
Other Stand Alone institutes	12002

3.4.3 Analysis of Educational Institutions in India:

According to recent data, India has a total of 1,580,034 educational institutions across various levels, ranging from primary schools to universities. The distribution highlights significant disparities in the availability of institutions at different educational stages.

At the foundational level, primary schools constitute the largest share, with 840,546 institutions, representing approximately 49.4% of the total. Upper primary schools account for 429,624 institutions (about 25.2%), indicating a strong emphasis on elementary education in line with national programs such as the *Sarva Shiksha Abhiyan* (Ministry of Education, Government of India, n.d.).

As the level of education advances, the number of institutions noticeably decreases. Secondary schools number 139,539 (8.2%), and senior secondary schools number 112,637 (6.6%). This decline in institutional numbers reflects common challenges in student retention and educational continuity. Factors contributing to this drop may include limited access to schools in rural areas, socio-economic constraints, and infrastructural inadequacies (Rao, 2020).

Higher education institutions are significantly fewer in number. India has 1,213 universities and 45,473 colleges, together comprising only about 2.8% of the total educational institutions. This stark contrast underscores a narrowing funnel effect, wherein access to higher education becomes more competitive and less geographically widespread (Agarwal, 2009). Additionally, there are 12,002 other stand-alone institutes, such as polytechnics and industrial training institutes (ITIs), which are essential for vocational and technical education.

3.4.3.1 Student Enrolment in Higher Education in India and West Bengal (2021–2022):

The enrolment figures for higher education in India for the academic year 2021–22 reflect the scale and structure of the nation's educational engagement. The data

categorizes enrolment by gender across several levels of higher education, including Ph.D., M.Phil., postgraduate, undergraduate, diplomas, and certificate programs.

3.4.3.1.1 National Overview:

In India, the total student enrolment in higher education stood at 43.27 million, with 22.58 million males and 20.69 million females, indicating a gender parity index (GPI) close to 0.92 (Ministry of Education, Government of India, 2023). Undergraduate programs account for the vast majority of enrolment, with 34.14 million students (17.85 million males and 16.28 million females), representing approximately 78.9% of all higher education enrolments. This dominance suggests that undergraduate education remains the cornerstone of higher education participation in India.

Postgraduate education follows next, with 5.22 million enrolments (2.32 million males and 2.89 million females), reflecting growing interest in advanced degrees, particularly among female students, who slightly outnumber their male counterparts in this category. Enrolment in Ph.D. programs is relatively low, at 212,568 students, though it shows a steady increase over previous years. Males comprise 53.6% and females 46.4% of Ph.D. students, indicating a narrowing gender gap even at the highest academic level.

Diploma and PG Diploma programs enrol approximately 2.92 million and 234,783 students respectively, showing moderate uptake. Certificate and integrated programs account for smaller proportions, with 77,300 and 460,579 students respectively.

3.4.3.1.2 West Bengal Overview:

West Bengal recorded a total of 2.72 million students enrolled in higher education in 2021–22, with 1.38 million males and 1.35 million females, exhibiting near gender parity in participation (Ministry of Education, Government of India,

2023). Like the national trend, undergraduate enrolment dominates in the state with 2.19 million students, accounting for around 80.7% of total higher education enrolment.

Postgraduate programs saw 303,364 enrolments, with female students outnumbering males (177,120 females vs. 126,244 males), consistent with national patterns of increasing female representation in postgraduate studies. Enrolment in Ph.D. programs in West Bengal stands at 13,786 students, and the M.Phil. enrolment is relatively minor with 1,302 students. Diploma programs enrol 189,946 students, while certificate courses show lower engagement at 16,216 students.

3.4.3.1.3 Gender Trends:

Across both India and West Bengal, the gender gap is most pronounced at the Ph.D. level, though it is narrowing, with women making up around 46% of Ph.D. enrolees nationally. At the postgraduate level, female enrolment slightly exceeds that of males both nationally and in West Bengal, indicating improved access and aspirations among women for advanced education.

The gender disparity is more evident in diploma and certificate programs, where male enrolment is notably higher. This may reflect gendered trends in vocational or skill-based training preferences.

3.5 University Libraries in India: A Strategic Pillar of Higher Education:

University libraries in India have historically served as essential cornerstones in the nation's academic architecture. With a vast network encompassing over 1,213 universities and 45473 affiliated colleges, these institutions are pivotal to knowledge creation, scholarly inquiry, and the broader goals of higher education. According to the All India Survey on Higher Education , the Indian academic library ecosystem ranks among the most expansive globally, catering to the diverse academic and research needs of millions.

The role of university libraries has evolved significantly—from static repositories of books to vibrant, service-oriented learning hubs. Today, they provide a comprehensive range of offerings, including circulation services, reference and research consultation, training programs, and digital access to global information resources. These services are designed to support academic excellence and adapt to the increasingly interdisciplinary and technology-driven nature of higher education.

Technological advancements and progressive educational reforms have further accelerated the transformation of academic libraries across the country. The adoption of automation tools, digital repositories, and vast electronic resources has optimized both accessibility and operational efficiency. In parallel, the emphasis on developing information literacy skills has led to targeted initiatives that prepare students for self-directed learning and critical information use. To remain relevant and effective, university libraries must continue to evolve, ensuring that infrastructure and services align with shifting pedagogical and research paradigms.

Insights from the AISHE 2020–2021 report highlight encouraging trends in the sector. Student enrolment surged to nearly 4.14 crore in 2020–21, up from 3.85 crore the previous year. Female participation rose to 2.01 crore from 1.88 crore, and the Gross Enrolment Ratio (GER) showed improvement across all social categories. Over the same period, India added 70 new universities and 1,453 colleges, supported by an increase of 47,914 faculty positions—indicators of a rapidly expanding academic landscape.

The scale and depth of this system are further demonstrated by the IndCat database, which houses over 1.56 crore unique book titles and 2.32 crore holdings contributed by 263 university and institutional libraries. Additionally, it includes 4.5 lakh theses from 459 universities and 37,152 serial records from 238 institutions. These figures reflect the strategic importance of university libraries

as enablers of educational opportunity, institutional growth, and national development. Continued investment, policy innovation, and user-focused modernization are essential to strengthen their impact in a transforming academic environment.

3.5.1 The Role of Libraries in Higher Education:

At their most profound depth, both the Vedas and the modern library stand as sanctuaries of *prajñā*—wisdom that liberates and illumines. Viewed through this continuum, a striking philosophical resonance emerges, weaving together the ancient pursuit of truth with the contemporary mission of intellectual stewardship. No longer mere custodians of texts, libraries have always formed the pulsating core of academic vitality—upholding the standards of excellence, accessibility, and depth across generations. In our present era shaped by knowledge economies and digital frontiers, their relevance has only deepened. They have evolved into vibrant crucibles of inquiry, innovation, and interdisciplinary dialogue, embodying both tradition and transformation.

In far too many institutions, the library has been reduced to a silent archive—a collection maintained with care but lacking vitality. Designed more to dazzle than to serve, such spaces often prioritize the aesthetics of accumulation over the purpose of access. True library dignity, however, emerges not from the sheer volume of holdings but from the life they ignite—ideas awakened, knowledge explored, communities engaged. Like words resting in a dictionary, untouched collections remain inert until animated by meaningful use. It is literature that breathes purpose into language, just as it is participation that breathes purpose into a library.

A living library is defined by the frequency and diversity of its engagement. Its worth lies in how it connects across disciplines, meets the varied needs of its users, and cultivates a spirit of inquiry. But creating such a space requires more

than curating shelves—it demands the intentional work of inclusion, relevance, and usability. It is easier to impress with accumulation; far harder—and more essential—to inspire through activation.

3.5.1.1 Role of Libraries: Philosophical Thought:

1. Library as *Tīrtha* and *Āśrama*: A Sacred Threshold of Awakening In Vedic tradition, a *tīrtha* is a liminal crossing—a space where the material and the spiritual converge. The modern library functions in much the same way: a threshold between ignorance and insight, inertia and transformation. Like an *āśrama*, it offers disciplined quietude, nurturing the inner faculties necessary for self-realization.

2. From *Śruti* to Search: Evolving Modes, Enduring Wisdom Where once knowledge was *śruti*—sacred transmission from teacher to disciple—today, the library preserves that legacy by storing and enabling access to wisdom across generations. Whether oral or digital, the aim remains unchanged: not information, but illumination. Your own balance of preservation with relevance reflects this unbroken lineage.

3. Librarian as *Upādhyāya*: Facilitator of Inner Inquiry In the *gurukula*, the guru gently guided the student's own discovery. Similarly, today's visionary librarian acts not as a gatekeeper, but as an *upādhyāya*—a guide in the learner's inward and upward journey. Your advocacy for user-aligned resource management resonates with this ideal of compassionate mentorship.

4. *Viveka* in Practice: Curation over Accumulation The Vedas prize *viveka*—the discerning intellect. A library grounded in this principle values thoughtful curation over mechanical acquisition. It discriminates between the superficial and the meaningful, the ephemeral and the enduring—just as your policies emphasize reflective stewardship.

5. Inclusivity as *Sarvabhūtahita*: Welfare of All Beings Vedic ethics rest on *sarvabhūtahita*—the upliftment of all. A truly modern library embodies this spirit when it becomes accessible across languages, disciplines, and abilities. In such spaces, catalogueing becomes not just classification but cosmology—honoring multiple ways of knowing.

6. *Mauna* as Architecture: Sacred Silence and Inner Space Silence in the Vedic vision is not absence but potency. Similarly, a contemplative library environment nurtures *mauna*—a quiet where insight can flower. In this light, architectural design and spatial ethos become *upacāras*—offerings that aid reflection and reverence.

From the Upanishadic seer's vision of the Self that "enjoys all desires" (*ya ātmā...sarvān kāmān samāśnute*), to the modern researcher engaging with multidimensional truth, the movement remains the same: inward toward the Self, outward toward the whole, and ever upward toward *pūrṇatva*—wholeness.

3.5.1.2 Traditional Role of Libraries:

1. Facilitating Knowledge Access and Equity Academic libraries provide equitable access to a vast array of resources—print, digital, and multimedia—bridging gaps in information availability across socioeconomic backgrounds. This democratization of knowledge is essential for inclusive education and supports the broader goals of social justice and national development.

2. Supporting Teaching, Learning, and Curriculum Development Libraries complement classroom instruction by offering curated resources aligned with academic syllabi. They foster independent learning, critical thinking, and interdisciplinary exploration. Librarians increasingly collaborate with faculty to design resource-rich curricula and integrate information literacy into teaching.

3. Enabling Research and Innovation For faculty and students engaged in research, libraries serve as indispensable partners. They provide access to

scholarly databases, journals, archives, and citation tools, while also offering guidance on research methodologies, data management, and academic publishing.

4. Preserving Institutional Memory and Cultural Heritage University libraries often house rare manuscripts, institutional archives, and special collections that preserve the intellectual and cultural legacy of the institution and the nation. These resources support historical research and foster a sense of academic continuity.

5. Adapting to Technological Change Modern academic libraries are at the forefront of digital transformation. Through digital repositories, e-resources, remote access services, and AI-driven discovery tools, they ensure that learning and research remain uninterrupted and globally connected.

6. Promoting Lifelong Learning and Skill Development Beyond formal education, libraries nurture lifelong learning by offering workshops, orientation programs, and access to open educational resources. They play a key role in developing information literacy, digital fluency, and research ethics—skills essential for academic and professional success.

3.6 National Education Policy and Libraries:

3.6.1 Fostering a Reading Culture under NEP:

The National Education Policy (NEP) envisions a robust reading culture across India, with the introduction of a *National Book Promotion Policy* serving as a strategic cornerstone. However, the specific framework and implementation mechanisms for this policy remain to be clearly articulated.

Public libraries have traditionally played a pivotal role in nurturing reading habits. Recognizing this, NEP emphasizes the development of an extensive network of public and digital libraries, supported by allied institutions. While

libraries are already integral to higher education and research, their significance at the school level is equally profound—particularly as centres for learning beyond school hours.

Book clubs can serve as effective bridges between libraries and the community, offering services such as readers' advisory, personalized reading recommendations, reading prescriptions, and reading consultancy. NEP also places strong emphasis on making translated works from Indian languages more accessible, a goal that public libraries are best positioned to fulfil.

Despite these ambitions, the current state of public libraries is concerning. A study by Kaur and Walia on collection development in Delhi's public libraries highlights inadequate outreach, a lack of human resources, insufficient reference materials, and weak ICT infrastructure.

To achieve NEP's reading-centric vision, state governments must take decisive steps to revitalize public libraries. This includes investing in infrastructure, enhancing staffing with trained professionals, and ensuring access to quality e-books for diverse user groups. Higher education institutions and centrally funded bodies could also play a supportive role by establishing public libraries that extend beyond campus needs.

Ultimately, the success of this initiative will depend on the sustained commitment to funding, professional development, and systemic support. Whether these elements come together effectively under the NEP remains to be seen.

3.6.2 Libraries as Research Support Centres under NEP:

The National Education Policy (NEP) underscores the importance of enhancing research capacities in select universities and institutions. While it broadly states that libraries must be equipped with facilities that meet user expectations, it leaves the specifics of such provisions largely undefined.

Libraries, however, possess immense potential to serve as enablers of research across the country. Grassroots innovators and young entrepreneurs, in particular, require institutional and public library support to develop innovation clusters and design environmentally sustainable products and services. In this context, select public and institutional libraries in each district should be developed as dedicated research support centres to cater to the needs of creators in the knowledge economy.

A true researcher is distinguished by deep subject knowledge, a passion for inquiry, and a desire to contribute meaningfully to their field. Library and information centres can nurture this drive by offering high-quality resources—especially digital collections—and by guiding users in reference management and effective information retrieval. Specialized librarianship is key to this process.

Libraries must take an active role in advancing research. Appointing dedicated research librarians—professionals skilled in research methodology, statistical analysis, open-source tools, and other support systems—will be crucial. The establishment of the National Research Foundation (NRF), as proposed in the NEP, highlights the need for such expertise. NRF not only intends to fund research beyond existing agencies but also to coordinate national research efforts. Research librarians, serving as nodal officers, can significantly contribute to these objectives.

Notably, INFLIBNET has introduced the IRINS (Indian Research Information Network System) platform to map and manage research activities across academic institutions in India. Librarians, serving as nodal officers, are playing a commendable role in updating Vidwan profiles and enhancing the utility of IRINS as a national research database.

3.6.3 Libraries as Catalysts for Multidisciplinary Universities: While undergraduate students may not yet engage in advanced research, universities are already fostering research-oriented thinking at this foundational stage. Through intensive coursework and continuous teaching practices, institutions cultivate critical inquiry and intellectual engagement.

Library and information centres hold tremendous potential to support universities in their transition to multidisciplinary hubs of learning and innovation—a vision expected to be fully realized by 2040. To achieve this, institutions must encourage technical institutes to actively explore disciplines within the Social Sciences and Humanities. Conversely, scholars from these domains should be equally encouraged to engage with Science and Technology. This cross-pollination of knowledge is essential to building a truly multidisciplinary academic ecosystem.

In this transformation, librarians must evolve into versatile professionals capable of navigating diverse subject domains. Their role should extend far beyond resource acquisition and preservation—which, while crucial, consume significant time and financial resources. Instead, libraries should function as curated repositories of high-quality textbooks and intellectually stimulating reference materials that inspire interdisciplinary exploration.

The librarian, often described as the "teacher of teachers," must possess a foundational understanding across subject areas to effectively support and coordinate with academic departments. By equipping themselves with cross-disciplinary competencies, library professionals can be instrumental in bridging disciplinary divides and nurturing a holistic learning environment.

3.6.4 Strengthening Student Support through Libraries under NEP:

The National Education Policy (NEP) identifies well-equipped libraries as fundamental to an enriching learning environment. It emphasizes four key pillars of education: curriculum, pedagogy, continuous assessment, and student support.

Of these, effective student support is greatly strengthened by access to high-quality resources and the infrastructure to utilize them efficiently.

To meet this vision, it is the responsibility of parent institutions to establish libraries as vital student support centres, backed by adequate funding to enhance their capabilities. Key priorities include the procurement of e-resources, seamless on-site and remote access, and the development of well-furnished, welcoming reading spaces.

Libraries must also act as learning catalysts, offering students resources that supplement teaching and inspire deeper inquiry. These efforts will aid in cultivating a scientific temper and critical thinking skills. A supportive library environment should encourage advanced reading and intellectual exploration.

To truly serve as academic anchors, libraries must deliver resources at the point of need—whether in classrooms, laboratories, or faculty offices. Their services should reach a broad user base, including teachers, students, researchers, and writers. Ultimately, users should perceive the library as a trusted space to find enriched learning materials aligned with their individual interests.

3.6.5 Fostering Ethical Awareness through Library-Led Information Literacy:

Information literacy has emerged as a key educational initiative, with libraries at the forefront of its widespread implementation. Of particular relevance is the fifth standard of information literacy, which emphasizes that an information-literate student must understand the economic, legal, and social dimensions of information use and demonstrate ethical and legal behaviour in accessing and utilizing information.

Library professionals play a pivotal role in instilling this ethical grounding among students. It is imperative for libraries to educate users—especially students—on the ethical, legal, and socio-economic implications of information and digital

technologies. To do this effectively, libraries must develop structured mechanisms that promote awareness of information ethics and support the ethical use of knowledge.

Institutions should ensure that their plagiarism policies are clearly visible and regularly communicated through library portals. Where such policies are absent, libraries must take the lead in formulating them and work collaboratively with academic administrators to implement them across departments. Library professionals must possess a robust understanding of information ethics, enabling them to guide all stakeholders, including students, researchers, and faculty members.

Equally important is the subscription to high-quality e-resources and the establishment of strong working relationships with the academic community. These efforts help ensure that users can access reliable content while adhering to academic norms and responsible information practices. Libraries should also promote reference management practices and uphold the values of the scientific method and intellectual honesty.

In essence, libraries must break disciplinary and administrative silos to address the root causes of academic dishonesty and champion ethical conduct through coordinated, system-wide efforts.

3.6.6 Libraries as Cornerstones of Lifelong Learning:

While formal education is confined to structured environments and specific life stages, learning itself is a lifelong pursuit—shaped by individual curiosity, professional demands, and personal aspirations. In this context, libraries emerge as essential institutions that transcend age, background, and academic affiliation, offering open access to knowledge irrespective of caste, creed, gender, or enrolment status.

Unlike classroom teaching, which is bound by time and curriculum, libraries offer a dynamic platform for continuous, self-directed learning. They house diverse study materials that empower individuals to explore new ideas, refine skills, and deepen understanding beyond formal education.

Lifelong learning—first formalized in the late 1960s and later championed by the International Commission on the Development of Education—is now recognized as a foundational pillar of knowledge-based societies. It is important, however, to distinguish lifelong learning from adult education; the former represents an enduring process guided by experience, ambition, and the intrinsic motivation to grow intellectually.

Public libraries, therefore, must be given strategic importance. They can initiate a range of innovative services by partnering with regional academic institutions. Models like the Bibliotheca Alexandrina in Egypt exemplify this expanded role, offering not only traditional collections but also research assistance, scientific programming, and community outreach.

Notably, the European Parliament and the Council have identified eight key lifelong learning competencies, many of which are echoed in the NEP:

- Communication in the mother tongue
- Communication in foreign languages
- Mathematical and scientific competence
- Digital competence
- Learning to learn
- Social and civic responsibility
- Initiative and entrepreneurship
- Cultural awareness and expression

Libraries are uniquely positioned to support and foster these competencies, making them vital actors in the cultivation of a learning society.

3.6.7 Libraries as Guardians of National and Cultural Heritage:

For centuries, libraries have served as custodians of cultural memory—preserving the rich tapestry of a nation's history, traditions, languages, arts, and indigenous knowledge systems. In the Indian context, this role is one of *responsible stewardship*, ensuring that the legacy of the past informs the present and inspires the future.

Today, libraries are more than repositories—they are active centres for cultural expression and heritage conservation. As library historian Wayne Weigand noted, libraries are vital institutions and physical spaces that promote social cohesion, intellectual aspiration, and the cultivation of social capital. Similarly, the International Federation of Library Associations and Institutions (IFLA) recognizes libraries as key agents in cultural preservation, urging them to engage communities in ways that add tangible value to society.

To deepen their impact, libraries must prioritize digitization, especially at regional and local levels. The large-scale digitization of rare books, serials, and manuscripts enhances accessibility and strengthens search and retrieval capacities. Successful digitization efforts rest on four foundational pillars: thoughtful selection of content, high-quality content creation, robust technical infrastructure, and efficient organizational frameworks.

In this endeavour, libraries should foster bilateral and multilateral partnerships with cultural institutions—a view supported by Michael Gorman, who asserted that libraries and cultural bodies are natural allies in the preservation and advancement of knowledge. Moreover, libraries must go beyond storage and access; they should actively design programs and services that transmit cultural heritage to future generations.

3.6.8 Enhancing Cognitive Abilities through Library Engagement in Higher Education:

Higher education forms the backbone of national development, and the National Education Policy (NEP) envisions producing individuals who are thoughtful, creative, well-rounded, and grounded in critical inquiry. However, one of the challenges identified in the current education system is the insufficient focus on nurturing cognitive abilities.

According to Bandura's 1986 work *Social Foundations of Thought and Action*, cognition plays a vital role in shaping social behaviour—an outcome influenced by personal, behavioural, and environmental factors. The NEP thus calls for a robust and well-implemented program to foster cognitive development among learners.

Library and information centres in higher education institutions already contribute to this goal by providing access to diverse reading materials. These resources broaden intellectual horizons and stimulate cognitive growth. However, to maximize impact, librarians themselves must be equipped with the skills necessary to support cognitive development. Understanding users' needs and responding with thoughtful, targeted services is essential.

Cognitive abilities underpin critical thinking, reflective analysis, and emotional intelligence—all of which are foundational to academic success and lifelong leadership. Encouraging reading habits, offering intellectually rich materials, and guiding learners through independent exploration can significantly boost students' cognitive capacities.

In this context, libraries must be seen not merely as repositories of knowledge, but as active partners in the cognitive and intellectual development of learners.

3.6.9 Expanding the Role of Academic Libraries under NEP:

Although the National Education Policy (NEP) clearly acknowledges the traditional role of libraries, it offers limited explicit directives for academic libraries, save for a few notable exceptions. Nevertheless, these expectations are embedded within the broader goals of the policy and must be discerned and embraced by the library community.

While the importance of public libraries is given some prominence, librarians across all types of institutions—particularly in higher education—must proactively define and expand their responsibilities in alignment with NEP's vision. Given the policy's strong emphasis on research, academic libraries should assert themselves as key research and student support centres. The introduction of dedicated research librarians, equipped with specialized expertise, can significantly accelerate and enhance scholarly activity.

Beyond their conventional functions, libraries must also take on the task of nurturing students' cognitive abilities, fostering self-efficacy, and cultivating a mindset geared toward lifelong learning. In doing so, libraries will not only reinforce their relevance but also become transformative agents in India's evolving academic landscape.

Global reading habits vary considerably, with differences in both the number of books read and the amount of time spent reading. According to recent statistics, the average number of books read annually ranges from 17 in the United States to as few as 2.6 in Pakistan. Specifically, individuals in the United States report reading approximately 17 books per year, followed by India (16), the United Kingdom (15), France (14), Italy (13), Russia (11), Japan (6.2), Brazil (5.6), and Pakistan (2.6).

In terms of time commitment, India leads with an estimated 556 hours per year spent reading, equivalent to approximately 10.7 hours per week. Thailand (489

hours), China (416 hours), the Philippines (396 hours), and Egypt (390 hours) also demonstrate high engagement, while readers in the United States spend about 357 hours annually.

Despite the increasing popularity of digital formats, print remains the preferred medium for readers globally. Historical, mystery, and biographical genres consistently rank among the most favoured. A 2023 global survey further noted that 64% of respondents intended to read more books than in the previous year, suggesting a promising trend in worldwide reading engagement.

Beyond accessibility, a library must evoke belonging. It should be a place where users feel seen, heard, and invited into discovery. When the space reflects their identities, when resources meet their aspirations, the library becomes more than a collection: it becomes a companion in their intellectual journey. In this relationship between reader and resource, usage and growth, the library finds its truest form—not as a monument, but as a force at the heart of academic and cultural life.

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CHAPTER – 4

COLLECTION DEVELOPMENT POLICY

4.0 Philosophical Foundation *(Inspired by the Upanishadic Vision)*:

This Collection Development Policy is anchored in the belief that the academic library is not merely a repository of materials, but a dynamic *brahmasadanam*—a sacred space where knowledge (*vidyā*) becomes a means of self-discovery and societal upliftment. Drawing inspiration from the Vedic ideal of *amṛtasya putrāḥ*—that all beings are children of immortality—we affirm that knowledge must be curated with discernment (*viveka*), shared with compassion (*karuṇā*), and accessed with equity (*samatā*).

Collection Objectives

1. Transformation over Accumulation: Prioritize resources that support critical inquiry, interdisciplinary insight, and the activation of higher-order thinking. Materials are selected for their potential to illuminate, not merely inform.
2. Curation as Yajña: Treat acquisition as *ahuti*—a sacred offering to the intellectual journey of the user community. Selection reflects intention, not volume.
3. *Equity and Inclusivity (*Sarvabhūtahita): Develop collections that speak across disciplines, languages, and perspectives—serving the diverse needs of learners, researchers, and communities historically marginalized in knowledge systems. (Radhakrishnan.1994)

Selection Criteria (Framed by Vedic Ethos)

- Relevance to Curriculum and Research (Adhikara): Ensure resources directly support pedagogic goals, emerging academic needs, and long-term institutional vision.
- Authority and Authenticity (Ṛta): Preference is given to materials rooted in reliable scholarship, primary sources, and lived experience.
- Diversity of Worldviews (Anekāntavāda): Seek to hold tension between competing narratives, thereby honouring the pluralistic spirit of Indian philosophical traditions.
- Linguistic and Cultural Representation (Bāhulya): Actively include works in regional languages and from non-Western frameworks, reflecting our multilingual and multicultural reality. (Shvetāśvatara Upanishad.1938).

Deaccessioning Philosophy

Materials may be removed in alignment with the principle of *pratisaṁcara*—cyclical return. Just as Vedic cosmology honours renewal through dissolution, the collection will be periodically reassessed to maintain relevance and resonance.

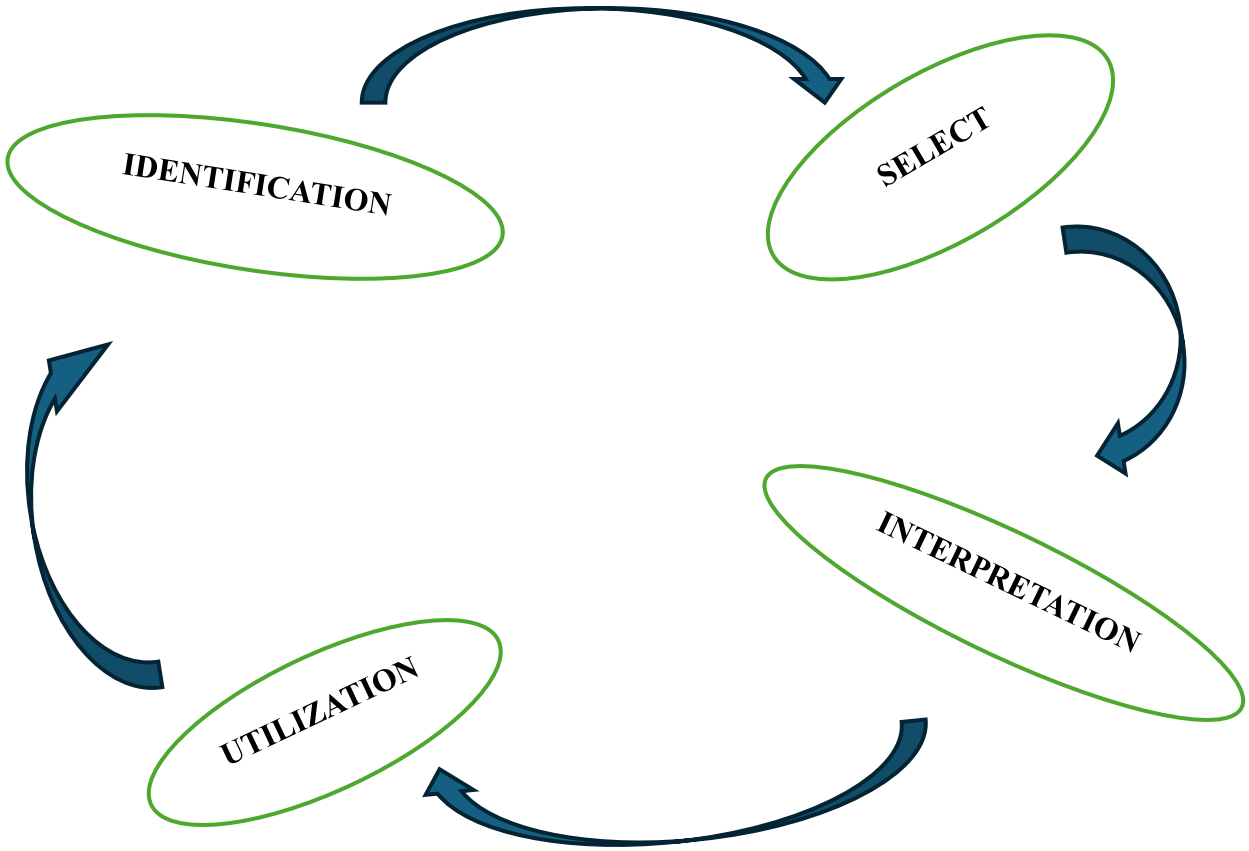
*V. Role of Librarians (*Upādhyāyas) Librarians are positioned not as gatekeepers, but as *jñāna-sādhakas*—guides in the seeker's journey. Through proactive engagement with faculty and students, they align collection priorities with authentic academic needs and promote reflective use of resources.

4.1 Collection Development Policy:

The foundation of all resources used to achieve the intended purpose of libraries and information centres' is information. Knowledge growth and information transfers both support the information transfer cycle process. The first of the various processes, the information cycle, elaborates

"IDENTIFICATION" in order to distinguish between material that is appropriate or inappropriate. The next step, "SELECT," aids in gathering accurate data and getting ready for storage. The "INTERPRETATION" cycle comes next, which somehow finds a means to get the information needed to meet user needs. Last

but not least, "UTILIZATION" comes after the necessary information has been disseminated.1



Information identification, the initial step in this cycle, poses the administrative problem of developing information collection. It is possible to view collection development as a crucial activity for libraries since it highlights the resources' advantages and disadvantages in respect to user needs. "Collection management" and "collection development" are interchangeable phrases in this context. Nonetheless, it is typically regarded as a growing and incorporated part of collection management, which comes after a more comprehensive part of collection building, a more challenging field that encompasses things like

budgeting and resource allocation, selection, media choice, weeding, preservation, binding, staffing & organization, performance appraisal, resource sharing & networking, and so on.

According to Osburn, collection development is “the rapid revolution of an unnamed, dispersed, slipshod operation for which the responsibility was ambiguous into an activity that is perceived or inherently pervasive”.

While collection management moves forward with methodical collection management based on a consensus-based policy created after evaluating user demands, collection planning is a universal procedure for the creation of library collections. The creation of a library's or information center's collection is a continuous process. The collection's architecture incorporates three crucial elements of information conveyance.

They are obtained, recognized, and chosen. A variety of words, such as requirements assessment, community analysis, and patron community, have been established to give a strong foundation for collection development generally because, as was previously indicated, the information demands of users satisfy the fundamental principle of collection development. In this regard, it is discovered that a variety of library-related factors, including the structure of the library, user demographics, and technical services, influence the development of collections. The task of establishing a connection between these two services falls to collection development. After consulting with the library staff involved in collection development activities, the acquisition department of a library usually places orders with publishers and distributors for the essential library materials.

Following acquisition, the catalogueuing department is in charge of processing and organizing such library resources for users. In fact, collection development staff members are helped by both patrons and staff to highlight the importance of each library item. Assessment is the responsibility of the selection team. Recent technological advancements have had a significant impact on the current concept

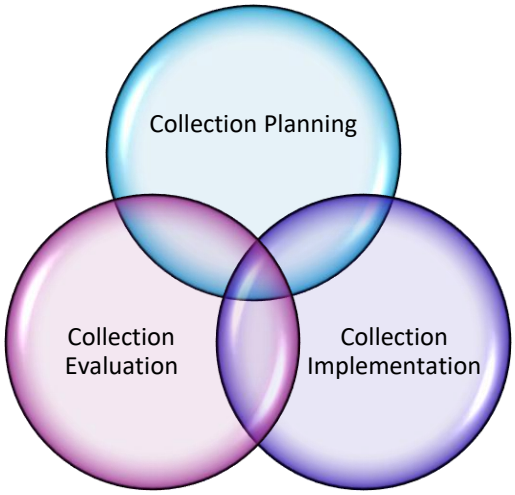
of collection development. In conclusion, each of these results from the process helps to prepare the written policy for the development of the library's collection. The well-known "EDELMAN TRIAD" from the 1980s demonstrates the distinction between library acquisition, collection administration, and collection building. "The first level is collection development, which should be viewed in the active sense even though it can be interpreted as a passive term when describing collection growth." Development of collections is a planning function. The general budget allocation is derived from the collection development strategy. Selection, which comes directly from the growth of the collection, is the second step. It is the process of making decisions related to carrying out the previously mentioned objectives. Acquisition is the third stage in this hierarchy. The selection judgments are then put into action by the acquisition procedure. The procedure is what genuinely puts the content into the library.

Though collection development is a universal process for libraries, differences occur at the time of various changes of elements, such as, environmental aspect, nature of the library as well as that of users, size of the library service community. Among them, last one is very important for collection development. In relation to this, universality of collection development much closer to ‘needs analysis’ is detected through following necessary factors:

1. The level of separate mode in individual information needs increases as soon as the size of the user community increases.
2. The level of diversification helps the library feel urgent needs of resource sharing
3. All the information needs of individual or group in the service community can never be fulfilled at a time.

Following the nature and scope of collection development, it can be called as a dynamic procedure where input of both library professionals and users are needed. Even it should be used along with cooperative programmes at local, regional, state, national & international levels. Often collection development is

called a biased task in building collection. In this sense, practical knowledge through trial & error method by the information professionals is required in an efficient way to view collection development in a true sense.



Collection development is the backbone of any academic or public library's mission to serve its community meaningfully. At its core, it's about making thoughtful, informed decisions about *what* to add, *why* to keep it, and *when* to let go.The Venn diagram illustrates the three interconnected pillars that shape this process:

1. Collection Planning

This is the foundation—where institutions define their priorities. It includes identifying user needs (students, faculty, researchers), setting goals based on institutional missions, and outlining selection criteria, budgets, and formats. Planning ensures that development aligns with broader strategic objectives.

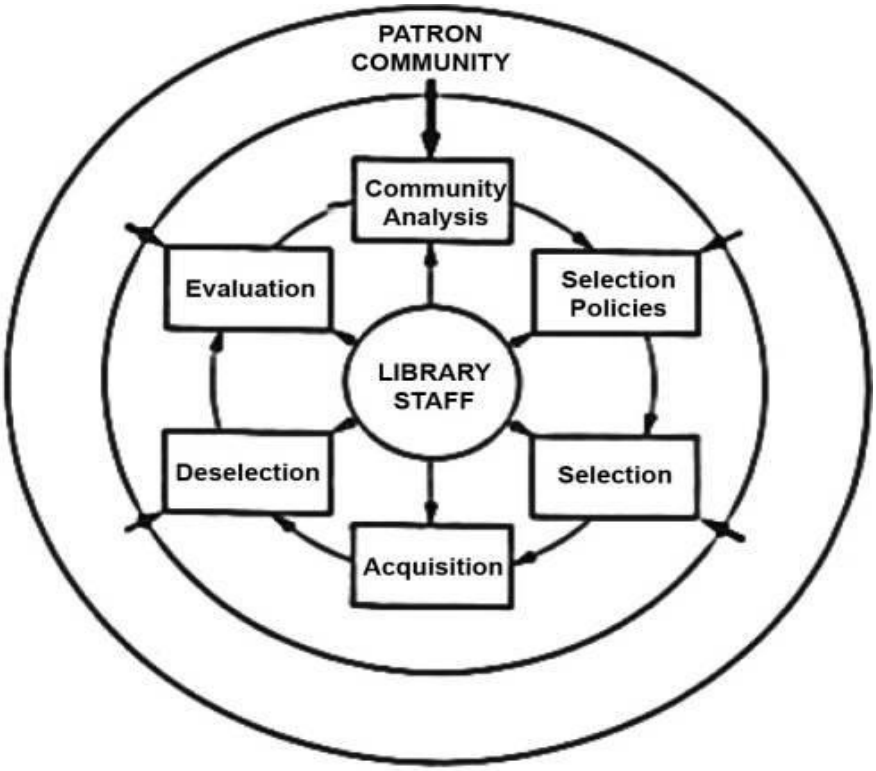
2. Collection Implementation

Here, plans become action. Resources are selected, acquired, catalogueed, and made accessible. Implementation blends policy with practicality—balancing demand-driven acquisitions with cost-efficiency, and sometimes involving negotiations with vendors or publishers.

3. Collection Evaluation

Perhaps the most dynamic piece: regular review ensures the collection stays relevant and responsive. Evaluation uses data—like usage stats, interlibrary loan requests, or user feedback—to assess value. It also guides weeding (deselection) or updating policies to adapt to evolving academic or community priorities.

What's powerful is how these areas feed into each other. Evaluation informs better planning. Planning guides implementation. And implementation, in turn, offers fresh data for evaluation. It's a cycle of continuous improvement that makes a library not just a repository, but a living, learning ecosystem.



Collection Development Process ; **Source** : Evans and Saponaro (2005)

This diagram represents the cyclical workflow of library staff in the collection development process, emphasizing their relationship with the patron community. At the Core: Library Staff ; They are the active agents who translate institutional goals and community needs into collection decisions.

The Surrounding Cycle Each step flows logically into the next, forming a feedback-rich loop:

1. Community Analysis Begins with understanding the demographics, interests, curriculum requirements, and evolving needs of the patron community. This drives all subsequent decisions.
2. Selection Policies Informed by community analysis, staff create or revise policies to guide what should be collected, why, and how. These policies reflect mission, scope, ethics, and priorities.
3. Selection Using these policies, staff choose materials across formats and disciplines. This includes balancing current needs with anticipated future use.
4. Acquisition The logistics—ordering, budgeting, licensing (for digital content), and maintaining vendor relationships—ensure that selected materials become part of the collection.
5. Deselection Also known as weeding: materials that are outdated, underused, or no longer relevant are removed to preserve space, relevance, and usability.
6. Evaluation Staff assess the effectiveness of the collection—through usage data, surveys, or curricular alignment. This step loops back into community analysis, reinforcing continuous improvement.

The Outer Shell: Patron Community; Ultimately, everything revolves around the community. Their needs shape the cycle, and the outcomes of the cycle—an evolving, responsive collection—flow back to benefit them.

4.2 History Of Collection Development:

Both print and non-print media are used to acquire library resources. But the books make up the majority of the collection. Even while subject-matter specialists can advise the librarian on book selection, the librarian is ultimately in charge of this task. This leads to the selection of books

based on specific guiding concepts and philosophies. Prominent figures in the field of library science have proposed the following principles:

Drury's book selection principle: Francis Drury enunciated the book selection principle in the year 1930.According to him, the purpose of book selection is to provide the right book to the right reader at the right time

Dewey's Book selection principle: Melvil Dewey in 1876 stated that, the books selected for a library should be, the best reading for the largest number at the least cost.

Principles of McColvin: Lionel McColvin gave his theory of book selection in public libraries. His principle was based on demand and supply theory of book selection. His theory emphasizes that the documents should be selected which are only demanded by the users for their specific needs and requirements. The demand should be evaluated by the librarian on the basis of their value, volume and variety.

Tagore's View:

"Most libraries are simply collections of books. They neither have the capability to effectively use the books they acquire, nor to make their collections truly impactful. In our country, those who spend large sums on libraries often view it as a symbol of prestige—not out of concern for meaningful content, but for the collection itself. That's why the true pride of a great library should not lie in its volume of books. The real measure should have been how those resources are used, but arrogance has overshadowed that. Attending a president's meeting is not necessary to show respect—honour isn't for wealth alone." (Tagore.1988)

It's a powerful reflection on how libraries risk becoming showpieces rather than centres of knowledge unless usability is prioritized over grandeur.

> "In our language, there are two repositories for all the significant words—one is a dictionary, and the other is literature. If you count, you'll find that most of the important words stored in a large dictionary are rarely used. Yet, their collection is necessary. But the significant words used in literature are vibrant and alive—each one indispensable. One must admit, literature holds greater value than a dictionary." (Tagore.1988)

It's a beautifully compact reflection on how meaning isn't just stored—it's brought to life through use.

Principles of Ranganathan: The principles of book selection were enunciated by Dr. S.R. Ranganathan on the basis of his five laws of Library Science in 1952.

- Books are for use: According to him only those documents should be selected which are extensively useful to the users of a particular library.
- Every reader his book: This implies that the users' needs are the prime considerations in book selection.
- Every reader its book: The law directs that every reader in the library must get books as and when required.
- Save the time of the reader: The implication of this law is that the books should be selected anticipating the demand of the readers and should be processed and sent to the shelves in order to save the time of the readers.
- Library is a growing organism: This implies that library should take care of weeding out and the existing collection should be divided into

two parts on the basis of its use i.e. active collection and passive collection.

The guiding principle for any kind of academic library needs to be guided by the aims and objectives of the type of library in terms of the kind of its readers and their need.

Dr. S R Ranganathan's 'Five Laws of Library Science' are the basic guidelines for preparation of policies on collection development. 'Every reader his book' reminds us about needs of users which is ultimate target of each and every library and without which building collection becomes fruitless. He also clearly identifies the role of Library Committee as well as the university librarian for building collection in a rightful way, in the way of avoiding unnecessary duplication of documents. It is basic background to be followed by the university libraries for actual collection development. (Ranganathan.1988).

In the 1960s, the function of collection development involving large budget allocations was varied enough to maintain large collection. At this stage, remote access to information was impossible. Users' needs were thought of locally and library professionals had profuse ideas for providing various kinds of formats like monographs, govt, documents, serials, microforms and other non-book materials. Online search was just in cradle.

As years go ahead, access to profuse information for its rapid growth was a criterion for building collection. Among 1960s and 1970s, the concept 'subject specialists' was emerged to analyse and build rich collection in libraries. At that moment, the management of qualitative and quantitative information helps create the concept of collection development in a wide manner.

Nature of traditional libraries changes along with the new ideas like, automation, electronic resources during 1980s.

The first Collection Management & Development Conference was held at Standford University during July 6-10, 1991 where broad aspect of collection

development was planned by the Subcommittee of ALA Collection Development Committee.

From this period, collection maintenance, resource sharing, and collection evaluation - all these terms were emerged. Gradually, we moved towards a wide and transactional collection development model in 1990s. The concept of collection development at a large scale had been raised at the end of 20th century which is observed in the literature of Jasper & Treadwell (1992), Niles(1992), Osburn (1992), where traditional structure had been discussed.

Now we are living in an electronic environment which asks library professionals to take decisions regarding selection of traditional forms of information along with electronic forms. Traditional thought of collection development sets a goal to prepare a repository of cultural heritage and intellectual thought. New approaches to electronic information are also compelling the librarians think over collection maintenance & preservation, budget, selection. Moreover, intermingling of organizational processes with collection development clearly shows the changing information needs of the users. Therefore, collection development itself finds its way to continue as vital part to fulfil a library's goal with the help of planned programmes.

4.3 Collection Development Policy:

"Collection development," "collection management," and "collection policies" are all phrases that make it simple to access the entire body of knowledge that a particular library has acquired. Collection development policy is a vital component, a live document that is important to build a plan—a written statement that demonstrates the library's strengths and weaknesses—even though it is not typically used. It assists library professionals in arriving at consistent conclusions about programs such as the acquisition and use of library resources, planning for their expansion, and resource upkeep. Peripherals of the collection development

policy include the user community and its needs, which in turn indicate the organization's mission.

In this connection budgetary system should not be overlooked so that a consistent communication in between the total information system can be chalked out through the policy. A clearly established policy demonstrates the library's capacity to acquire a wide range of resources, aids in the preparation of grant applications, and examines fund development and other factors that are essential for library development. Various library services can be carried out within the written policy's direction. Moreover, policy statements allow staff, management, and other library components to communicate with one another. It even serves as a guide for upcoming library employees.

Information professionals typically draft policy statements in a way that supports both intellectual freedom and the protection of the library's collection from unlawful activity. Here, the "Library Bill of Rights" plays a significant role in activating the policy statements, which in turn offers a guaranteed reference to safeguard library resources. The general consensus is that collection policies offer the kinds of rules that constitute a standardized framework for the management of library resources.

Policy statements are typically written in a way that aids information professionals in safeguarding both intellectual freedom and the library collection from any unlawful activity. This section of the policy statements offers a guaranteed reference to preserve the library materials because the "Library Bill of Rights" has a significant influence on how the policy statements are active. From a broad perspective, collection policies offer principles that form a uniform framework for managing library resources.

4.3.1 Reason Behind The Written Policy :

Some significant and inevitable opinions of distinguished professionals are revealed by the literature analysis on collection development policies. For instance, according to Bonita Bryant, "the profession's emphasis that policy

Records are necessary. The policy "is for any library a necessary tool," according to the American Library Association's Guide for Written Collection Policy Statements. Despite having extensive collections, many libraries and information centres lack a collection development policy, according to careful observation. It's likely that librarians' vast practices and experiences allow them to offer library services. The 1960s through the 1980s saw a sharp increase in the use of written policymaking. In terms of policy guidelines and their application, two types of standards emerged in the 1960s:

• *Classed Analysis* which analyses a collection for the needs of users according to Library of Congress Classification scheme.

• *Narrative Analysis* which describes the subject collection narratively to analyse the subject particulars of a collection. American Library

Association (ALA) and Research Libraries Group (RLG) worked on it at different stages resulting in following formulas like “Guidelines for collection development” 1979 and “Collection Development Manual”1980.

The 1990s saw a number of significant developments in telecommunications and information technology that paved the way for the creation of collection development policies. These included the nature of collection, the rising cost of information, and the digitization process to satisfy user information needs. Today, written policies are based on quality service and appropriate access to information.

Nevertheless, by dismantling several conventional ideas, electronic resources are posing a new challenge today. And it is crucial to have the right written format for collection creation in order to welcome these fresh concepts. Nowadays, a

variety of databases (for journal articles) are available online, such as Elsevier, Springer, Wiley, and others, which are licensed packages to various libraries. Various consortia agreements are becoming more significant in this regard these days. All of these have a significant effect on the policy for collection development. It is also simple to accept appropriate continuity and consistency in collection development plans by means of a documented policy. In order to help library professionals make judgments on the selection and management of library resources, it appears to be a useful manual. According to Eric J. Carpenter, written policies' functions are in three steps - "written policies are planning documents; they are methods of communication; they are a basis for resource sharing among libraries." This concept is more explicitly discussed by Gorman and Howes is clearly expressed the need of collection development policy in libraries "Devising a policy is a means of engaging in self-examination and reflection, which today is essential for rational, coherent growth of a collection users change, needs change and resource availability changes; a policy can help one to be aware of these changes by acting as a collection of baseline data for current operations and, ideally, a starting point for future development."

Although librarians have a lot of excellent ideas, they frequently don't prepare them well. The reasoning behind this failure is that librarians frequently struggle to gather the vast amounts of data needed for three criteria that are crucial to policy. The library's collection's strengths and weaknesses, the service community and its evolving trends, and additional resources accessible locally or through interlibrary loan to the relevant library patrons are the first three.

Another reason in support of this is that a written policy needs to adapt to the changing needs of the community, which can occasionally be problematic for librarians. Thus, policy becomes outdated if changes are not implemented. Thus, it is imperative that the policy statements be updated, as doing otherwise renders the process of developing and overseeing the library's collection futile.

Overall view shows that solid reasons behind formulating written policy are:

• Proper guidance to make persons responsible in library management.
• Overall control and maintenance of library resources in a compact way based on institutional goal.
• Consistent and effective way of accessing information in an organized manner.

4.3.2 Uses of Collection Development Policy:

The process of developing a collection might involve a large number of people. Different viewpoints and kind conversations are given the opportunity to create a shared policy framework, and only a written statement can clearly define the collection development programs because it provides clear guidelines that both selectors and librarians can use to move forward. It carefully examines the scope and intent of a library's holdings.

Uses are in the following way:

• Analyses nature & scope of collection
• Shows collecting priorities
• Meets institutional / organizational goal
• Hides personal biasness
• Prepare standards for selection
• Helps evaluate resources
• Shows right judgement concerning budget allocation
• Maintains public relations
• Provides guidance to new staff of the library
• Helps assessing overall performance of collection development programmes.

A well-crafted policy may direct everyone's access to information resources and ensure their efficient and consistent upkeep. To help experts understand how to safeguard information from any illicit activity, even a written policy is crucial. This component of connection with the user community is simple and helpful.

4.3.3 Elements of Collection Development Policy :

Collection development policy delivers statements achieving library's mission. But question comes what would be the elements of a good collection development policy.

Three major elements are to consider for discussion of policy formulation.

• OVERVIEW

• DETAILS OF SUBJECT AREAS & FORMATS

• MISCELLANEOUS

4.3.3.1 Overview: Objectives of the Library is First Element to be Considered for Preparing Policy Statements.

In this connection, following steps to be followed first:

• General description of the user community - whether academic or special or even public community. Infact, a detailed survey of this area can help a professional prepare the policy easily & effectively.

• Detailed analysis of users & information regarding primary users. Survey concerning the degree of service to those users, mode of service, service pattern to different categories of users, even for the disabled - is very much important to get proper answer in preparing policy statements.

• Overview based on the parameters of the collection states the concept of policy statements. Parameters are: subject area of the library collection, formats possessed by the particular library.

• Detailed analysis of users' needs is necessary in this part- whether only academic needs or any other needs are to be followed.

Along with these, it is important to provide information regarding the use of retrospective collection. Even preparation of policy statements also needs to know the role of cooperative collection programs.

4.3.3.2 Details of Subject Areas & Formats Collected :

In this area of policy statements, divisions of each and every subject field, identification of kinds of collection and also that of users - are necessary to be analysed in the way of surveying users' needs.

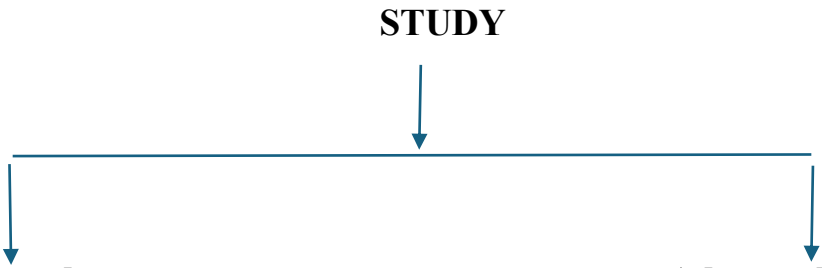
USERS	**FORMATS**
Adult	Books
Young adult	Periodicals
School-age children	Newspapers
Physically disabled children	Microforms
Teaching faculty	Films
Research scholars	Slides
Undergraduate students	Audio Recordings
Graduate students	Sound Recordings
Postgraduate students	Pamphlets
Alumni	Manuscripts & Archives
Staff	Maps & Atlases, Government Documents, Realia, Online Resources, Software Databases

Among these, library and information centres have freedom to choose categories and formats as per their own needs. Whatever guidelines over this matter we found, the ALA Guidelines 12 are important to be noted where five level systems are found to categorize the subject areas:

1. COMPREHENSIVE: 'all significant works of recorded knowledge' (publications, manuscripts, other forms).

2. RESEARCH: 'major published source materials required for dissertations and independent research' (research reports, new findings). Even reference sources are included here for discussion.

3. STUDY: 'undergraduate or graduate work or sustained independent study' (complete collection of work, basic textbooks, basic reference tools).



4. BASIC: Highly selective collection which serves to introduce & define the subject to indicate the varieties of information available elsewhere. Major dictionaries, encyclopaedias, bibliographies, few major periodicals are included here.

5. MINIMAL: a subject area in which few selections are made beyond very basic area.

Not only that, IFLA, RLG in U.S. and ARL , many European & Canadian libraries speak out of ***CONSPECTUS*** model for identifying collecting levels. This model is usually used as a tool - standard level for collection development as well as for assessment. Conspectus means "an overview or summary of collection strength and collecting intensities - arranged by subject, classification scheme or

combination of either and containing standardized codes for collection or collecting levels and languages of materials collected" 13 Collection development policy can be formulated with the help of this model where detailed analysis of subjects is needed. This analysis is done through Library of Congress Classification system which again can be converted through Dewey Decimal Classification (DDC). According to Conspectus structure, any library can choose any of the
following four subject levels:

- 20 major LC Divisions
- 200 subject levels
- 500 field levels
- 5000 topic levels

Numerical value is to be added to each subject field to get a view of strength & weakness of existing collection.

According to IFLA, Acquisition and Collection Development Section, a particular coding system is needed for this model as per gradual needs of users:

0. Out of scope
1. Minimal
2. Basic information
3. Instructional level
4. Research level

This code system is applied in different libraries along with variations in order to prepare a consistent environment in libraries. After getting detailed information of subject analysis, selection of proper items for building collection can easily become fruitful for a library. Conspectus model is highly appropriate for minimizing the task of selectors. It broadens the scope for building a sound & solid collection. The need of collection development policy guidelines has been recognized also by our Indian library professionals.

Recently, the National Knowledge Commission has explained the need of collection development policy and recommended guidelines.

Next step of collection development policy is to specify the area which identifies the task of responsibility for collection development. A careful observation of the user-community - its nature as well as needs helps a library get a good picture of collection building. Policy statements include the following queries too for evaluation of collection.

1.Selectors:

• Librarians from public service
• Librarians from technical service
• Users
• Subject specialists
• Departmental Head
• Chief Librarian

2. Selection Procedure:

A decision to select collection generally depends on the following responsibilities:

• Individual Selector
• Library Committee
• Group selecting materials from list prepared centrally

Library staff along with the librarian are usually responsible for selection procedure, especially reference collection. And it is the responsibility of the chief librarian to select retrospective collection, serials, non-book materials etc. Users also go for current collection - especially books and monographs. But what would be the correct ideas for selection can be reflected in written policy in the following way:

• Selection must be based on users' needs
• Standard and updated lists are to be maintained

• Reviews should be of good help for selection of library materials
• Library resources should not carry any kind of sensational & violent information
• Literature containing social values should be incorporated as library resource.

3. Miscellaneous Issues:

Third element deals with policy statements concerning gift, evaluation and the like.

A. Gift: gifts are something that can enrich library's collection. But it is to be remembered that these too should have some importance considering the objectives of the library and its needs. Therefore, a written policy for gifts provides information regarding incorporation of gift materials having same profile and withdrawal of not needed ones. If there is any kind of condition, policy statements show the way whether the donated documents should be preserved separately or not, whether the donated fund should be considered for acquisition of new materials thus enriching the library collection. Even assessment over library's participation regarding acceptance of these activities is also necessary here.

B. Discards: Each & every library and information centre has to take decision regarding deselection or discard of library resources, though its programs vary according to the nature of the library. Policy should be as such that it covers the scope, criteria, purpose of this program. In fact, in case of libraries especially academic libraries, the question of purchasing multiple copies of a particular document arises where policy statements can guide them to buy in the following way or as per individual library's users' requirement:

• One copy per ten users during six months period
• One copy for general collection
• One copy per ten users as reserved

C. *Evaluation :* This is the most important part of collection development program of a library. It depicts both qualitative and quantitative value of collection. Evaluation easily helps identify the quality of the library materials and collection development policy provides the basic steps to be followed by the concerned library in order to handle evaluative complaints. Evaluation completes the collection development cycle and is closely tied to needs assessment activities. Collection evaluation involves both quantitative and qualitative values. The main objectives of evaluation are to know: (1) how useful is the collection, (2) strengths of the collection, and (3) how effectively the money is spent. In order to achieve the goals of evaluation, the following points need to be kept in mind:

1. What is the true scope of the collection(subjects covered)
2. What is the depth of the collection(type of material)
3. How the collection is used
4. What are the strong areas of collection
5. What are the weak areas of collection
6. Is the library serving to a special community
7. Is the collection too old
8. How many books are issued to the member
9. How many books are issued to member libraries

The aforementioned points can be assessed using five broad methods, including gathering holdings statistics, reviewing bibliographies, getting feedback from frequent patrons, looking at the collection in person, and listing the library's document delivery capacity.

Apart from the aforementioned actions, it is now impossible to ignore the significance of modern technology and reliance on telecommunications. To handle electronic resources in any library, integrated or distinct policy guidelines are useful. As part of the license agreement, policy statements cover the usage of various electronic media, such as hardware and software. Similar to traditional

materials, the policy for electronic resources should include an overview and a decision-making process.

4.3.4 Policy to be Approved:

After preparing the collection development policy, the first task is to approve it through Library Committee where each and every member should agree upon it.

The whole procedure of this section is that:

• The higher authority of the institution/organization appoints a Committee to organize and make a draft copy of the policy

• This draft copy is then to be verified and commented by the higher authority

• The policy committee will then include all the suggestions and prepare a final draft

• The final one again goes for another review

• Meeting is to be held for preparation of final copy, with necessary comments to be incorporated

• Multiple copies of this final policy are prepared for the library itself and for users who need it.

This policy is then valuable to take decisions whenever any problem arises in connection with library administration. Any library professional can easily handle any disagreement because of guided rules provided by the Committee itself. Even future library professionals can have a total view over an individual library's mission statement through this policy.

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Peter Clayton also summarizes the whole contents of collection development policy in a finer way:

I. Mission

II. Purpose of the library

III. Clientele served

IV. Access

V. Background to collection

VI. Budget

VII. Selection principles

VIII. Special collection

IX. Cooperative relationships with other libraries & information centres

X. Collection evaluation

XI. Preservation activity

XII. Weeding

Though it is necessary to follow that policies vary according to the nature of the library. There can be no standard norms which are applicable to all libraries as a whole, but must be some standard framework.

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CHAPTER -5

JADAVPUR UNIVERSITY: GROWTH AND DEVELOPMENT OF COLLECTION

5.0 The Backstory:

The rising dominance of Western civilization, coupled with the gradual erosion of national identity under colonial educational norms, compelled a section of Bengal's intelligentsia to champion the cause of an independent and culturally rooted system of education. The prioritization of English as the principal medium of instruction—accompanied by scarce employment opportunities and the sidelining of moral and spiritual instruction—deepened their resolve. These converging circumstances catalysed the national education movement; an assertive response aimed at reclaiming control over the educational domain and constructing a pedagogy aligned with India's indigenous intellectual and cultural ethos. It is striking to observe how education transformed into a vital instrument in the broader quest for political and cultural self-determination.

The Indian Universities Act of 1904 was far more than a legislative measure on education—it became a flashpoint in the broader struggle for national identity and self-determination. By imposing increased government control and curtailing the autonomy of higher education institutions, Lord Curzon’s administration inadvertently intensified nationalist consciousness. Prominent leaders such as Surendranath Banerjee and Pheroze Shah Mehta saw through the underlying

intent to suppress intellectual freedom, and their spirited resistance became emblematic of a larger ideological battle. Their efforts transcended the realm of education, aiming instead to construct the intellectual foundations of a self-reliant nation, free from colonial subjugation. Moments such as these reveal how education and political awakening were inextricably linked—underscoring that the pursuit of knowledge has always been a vital companion in the quest for freedom.

The anti-partition movement of Bengal in 1905 marked a critical turning point in India's nationalist awakening, galvanizing widespread resistance—particularly among students who protested by boycotting colonial educational institutions. The British administration's repressive countermeasures only deepened the resolve of nationalist leaders and the broader public. Amidst this heightened unrest, the demand for an autonomous system of education—free from imperial control—gained unprecedented urgency. This watershed moment gave rise to a new pedagogical framework, rooted in national consciousness and the principles of self-governance. The establishment of indigenous educational institutions during this period not only challenged colonial dominance but also reaffirmed India's commitment to cultural and intellectual self-determination. Education, thus, evolved into both an instrument of resistance and a catalyst for collective empowerment.

The National Council of Education was formally established on 11 March 1906, with the objective of advancing literary, scientific, technical, and professional education along nationalistic lines. As a pioneering initiative born out of the Swadeshi Movement, the Council stands as a testament to the creative and intellectual vigour of the period.

Subsequently, on 1 June 1906, the Council was officially registered under Act XXI of 1860. Notably, on the same day, another institution—the Society for the Promotion of Technical Education (SPTE), founded by Sir Tarak Nath Palit—

also secured its registration. SPTE went on to establish the Bengal Technical Institute, which commenced operations shortly thereafter on 25 June 1906.

On 25 May 1910, the Bengal Technical Institute was officially merged with the National Council of Education, marking a significant step toward consolidating indigenous efforts in technical and professional education. Over the following decades, this unified institution evolved into the College of Engineering and Technology in May 1929. At that stage, it began offering formal degree programs across three distinct branches of engineering and technology, laying the groundwork for a robust national framework in higher technical education.

Calcutta University, the Union Public Service Commission, and several State Public Service Commissions. Furthermore, these qualifications were acknowledged by select universities in the United States and other parts of the world. In the post-independence era, numerous internationally esteemed institutions—particularly those at the forefront of technical education—strongly advocated for statutory recognition of these degrees by the State or Central Government.

The degrees awarded by the National Council of Education earned recognition from Calcutta University, the Union Public Service Commission, and several State Public Service Commissions. Furthermore, these qualifications were acknowledged by select universities in the United States and other parts of the world. In the post-independence era, numerous internationally esteemed institutions—particularly those at the forefront of technical education—strongly advocated for statutory recognition of these degrees by the State or Central Government.

By this time, the College of Engineering and Technology was already functioning with the academic rigor and administrative structure characteristic of a university. To enable it to operate officially as a Unitary Teaching University and to support

its continued development, statutory recognition became a necessary step. This proposal received the formal approval of the Government of India, affirming the institution's academic standing and legitimizing its role in the national higher education framework.

By the early 1950s, the College of Engineering and Technology had firmly established itself as a centre of excellence, both in academic performance and administrative maturity. Recognizing its advanced status and growing national significance, the Government of West Bengal, in consultation with the Government of India and the University Grants Commission, took decisive steps toward granting the institution full university status.

Consequently, the Jadavpur University Act was passed by the West Bengal Legislature, and Jadavpur University was formally established in 1955 as a Unitary Teaching University. Rooted in the ideals of the National Council of Education and the intellectual legacy of the Swadeshi movement, the University was envisioned as a bold experiment in nationalist education—offering integrated programs in engineering, science, arts, and later other disciplines, free from colonial legacies and aligned with India's independent aspirations

Following a series of amendments, the Jadavpur University Bill was passed by the West Bengal Legislative Assembly on 22 September 1955 and subsequently approved by the Legislative Council on 7 October 1955. The Bill received the Governor's assent on 12 November 1955, thereby becoming law as the Jadavpur University Act, 1955 (West Bengal Act XXXIII of 1955).

Subsequent revisions to Section 12 of the Act—first through West Bengal Ordinance No. 1 of 1956, and later through a legislative amendment in February 1956—further reinforced the institutional foundation and academic autonomy of the University.

The Act officially came into force on 24 December 1955, marking the formal transformation of the College of Engineering and Technology into Jadavpur University. This historic transition stands as a landmark in Bengal's educational and nationalist history, embodying the aspirations of an indigenous, self-governed institution dedicated to excellence in teaching, research, and public service.

Dr. Bidhan Chandra Roy, who served as the President of the National Council of Education, Bengal, took on the role of the first President of the University from 4th December 1955. His position was analogous to that of a Chancellor in other Indian universities, reinforcing his influential role in shaping the institution's future.

This transition marked a new chapter in higher education, reflecting the dedication and perseverance of those who envisioned a nationally driven academic framework. It laid the foundation for Jadavpur University's journey toward academic excellence and innovation.

Dr. Triguna Sen was appointed to oversee the responsibilities of the Rector from 24th December 1955, a role comparable to that of a Vice-Chancellor. The first Registrar of the University was Sri Prabir Chandra Basu Mallik. Notably, the West Bengal Government, under the leadership of Chief Minister Dr. Bidhan Chandra Roy, ensured that the National Council of Education was not overshadowed, recognizing its vital contributions in establishing Jadavpur University and Jadavpur Vidyapith.

As a result, the Council was granted a distinguished place in the Act, allowing it to continue its activities with the hope of further enriching the nation's educational landscape. The foundation of Jadavpur University stands as a testament to the resilience and vision of those who strived for academic independence and excellence.

The evolution of Jadavpur University continued with the publication of the Jadavpur University Act, 1981 (West Bengal Act XXIV of 1981) in The Calcutta Gazette Extraordinary Notification on 8th September 1981, followed by the Jadavpur University (Amendment) Act, 2000 (West Bengal Act XVI of 2000), which was officially published on 25th July 2000 in the same gazette.

As part of its identity, the university adopted its Common Seal and Coat of Arms, an elegant design created by the renowned artist Nandalal Bose. The emblem features a lamp with three flames, nestled within the petals of a fully bloomed lotus. Each element carries deep symbolic meaning—the lamp signifies knowledge, while the three flames represent intellectual training, the cultivation of emotions and imagination, and spiritual growth. Surrounding them, the lotus petals reflect the beauty of fine arts and the richness of culture, encapsulating the institution's commitment to holistic education and artistic excellence.

It's remarkable how even a university's seal can encapsulate its philosophy and vision for education!

As per Section 12(1) of the Act, the responsibility for maintaining and managing the College of Engineering and Technology, along with Jadavpur Polytechnic, was officially transferred from the National Council of Education, Bengal to Jadavpur University, subject to confirmation by the Government of West Bengal.

According to Section 12(a), several key assets of the National Council of Education, Bengal—including approximately 10 bighas of land on Prince Anwar Shah Road and 172 bighas of leasehold land on Raja Subodh Mallik Road in Jadavpur, Calcutta-32—were transferred to the University. This included all buildings, furniture, fittings, equipment, plant and machinery, tools and accessories, books, journals, manuscripts, and other essential items. However, two bighas of vacant land adjoining Raja Subodh Mallik Road were retained by the National Council of Education for future building projects.

The total valuation of these assets was approximately Rs. 73,82,964. Additionally, government securities and shares worth around Rs. 5.53 lakhs, along with a bank balance of approximately Rs. 56 lakhs, also became the property of Jadavpur University—though this was subject to existing liabilities amounting to approximately Rs. 6.44 lakhs in the bank.

This transition marked a significant institutional shift, further strengthening Jadavpur University's independent standing and expanding its resource base for future educational development.

With the transfer of all movable and immovable assets from the National Council of Education, Bengal, Jadavpur University embarked on its mission to deliver quality education to students while fostering an exceptional academic and research environment for its faculty.

The university was officially inaugurated on 18th March 1956 by Dr. Sarvepalli Radhakrishnan, then Vice-President of the Indian Union. This momentous occasion was seamlessly integrated into the grand celebration of the Golden Jubilee of the National Council of Education, Bengal—the very institution from which Jadavpur University had its roots.

This inauguration not only marked the beginning of a prestigious academic journey but also honoured the vision and struggles of those who championed independent education in Bengal. It was a defining moment in the region's educational history, setting the foundation for decades of scholarly excellence.

5.1 The Structure of the University:

Jadavpur University operates across two expansive campuses: the historic 60-acre main campus at Jadavpur and a modern 21.3-acre satellite campus at Salt Lake near Chingrighata. With a longstanding tradition of academic excellence, the University has distinguished itself in the fields of Arts, Science, and Engineering & Technology.

The University has evolved into a dynamic academic institution with four structured faculties. Under these, a wide range of departments, schools, and centres have thrived—fostering interdisciplinary research, innovative pedagogy, and community engagement.

5.1.1 Academic Structure of Jadavpur University :

Faculty	**Departments / Schools / Centres**
Faculty of Arts	Bengali, Comparative Literature, Economics, Education, English, Film Studies, History, International Relations, Library & Information Science, Philosophy, Physical Education, Sanskrit, Sociology
Faculty of Engineering & Technology	Architecture, Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Telecommunication Engineering, Food Tech & Biochemical Engineering, Instrumentation & Electronics Engineering, Mechanical Engineering, Metallurgical & Material Engineering, Pharmaceutical Technology, Production Engineering, Construction Engineering, Information Technology, Printing Engineering, Power Engineering
Faculty of Science	Chemistry, Geography, Geological Science, Instrumentation Science, Life Science & Biotechnology, Mathematics, Physics

Faculty of Interdisciplinary Studies, Law & Management (FISLM)	21 Schools and 1 Department (detailed below): Adult and Continuing Education & Extension ; School Of Advanced Studies in Industrial Pollution Control ;School Of Automotive Engineering ;School Of Bio-Science and Engineering; School Of Cognitive Science ;School of Cultural Texts and Records ; School Of Education Technology ; School Of Energy Studies ; School Of Environmental Radiation and Archaeological Sciences ; School of Environmental Studies ; School Of Illumination Science, Engineering and Design ; School Of International Relations and Strategic Studies (SIRSS) ; School of Languages and Linguistics ; School Of Laser Science and Engineering ; School Of Materials Science and Nanotechnology ; School Of Media Communication & Culture ; School Of Mobile Computing and Communication ; School Of Natural Product Studies ; School Of Nuclear Studies and Application ; School of Oceanographic Studies ; School of Water Resource Engineering ; School of Women's Studies.
Centre for Studies (46) These specialized Centre operate across disciplines and faculties, fostering	**Science & Technology**: IC Design & Fabrication Centre, Centre for Plasma Studies, Nuclear & Particle Physics Research Centre, Embedded System in Instrumentation, Welding Technology Centre,

advanced research, training, and outreach: Selected Centre Names (Grouped Thematically)	Condensed Matter Physics Research Centre, Sir C.V. Raman Centre for Physics & Music, **Humanities & Social Sciences**: Centre for Ambedkar Studies, Centre for Canadian Studies, Centre for Marxian Studies, Centre for European Studies, Centre for Refugee Studies, Centre for Studies in African Literatures & Cultures, Centre for Translation of Indian Literatures (CENTIL), Centre for the Study of Religion & Society **Language & Literature**: Language Studies, Latin American Literature & Culture, Rabindranath Studies Centre, Centre for Victorian Studies, Centre for Indology, Hariprasanna Biswas Centre for India-China Cultural Studies, Centre for Theatre Studies **Interdisciplinary & Policy Studies**: Centre for Disaster Preparedness & Management, Centre for Human Settlement Planning, Centre for Counselling Services and Studies in Self Development (CCSSS), IMPACT Centre, Innovation and Skill Development Research Centre (ISDRC), Transportation Studies, Yoga [Phy. Edn] **Health, Food & Environment**: Centre for Medicinal Food and Applied Nutrition, Centre for Environmental Radiation Studies, Centre for Quality Construction, Bio Equivalence Centre, Swami Vivekananda Centre for Technical Manpower Development.

5.2 Library:

5.2.1 NCE Library:

The library associated with the National Council of Education and Bengal National College saw remarkable growth from its inception in 1906. Initially funded by a donation of Rs. 5000, it was enriched by Sri Aurobindo Ghosh's personal collection of 673 books. Within just five months, the library amassed 2500 volumes valued at Rs. 10,000. By the end of 1907, contributions from distinguished personalities expanded the collection to 4000 books, and in 1908, it reached 6034 volumes, with an estimated value doubling to Rs. 20,000.

Under the stewardship of its first librarian, Babu Jnanadakanta Chakravarty, significant strides were made in catalogueuing and organizing the resources. By 1910, the library had grown to 6420 books, incorporating volumes from the Bengal Technical Institute library as a result of amalgamation. The Committee actively sought contributions from Indian authors and publishers to maintain this upward trajectory, ensuring the library remained a well-equipped resource for academic research.

Between 1927 and 1928, the library expanded significantly, reaching 9000 volumes by the end of 1927 with an estimated worth of Rs. 20,000. Valuable books on higher mathematics and philosophy were acquired for research, alongside text and reference books for engineering and other departments, amounting to Rs. 3000. Additionally, cultural and general interest books were procured through purchases and donations.

By 1928, the library had grown to 9200 volumes, valued at Rs. 21,000. A well-equipped reading room was introduced, allowing students and faculty to access reference books and periodicals. Around 500 books were circulated among teachers and the Electrical Department. Efforts were made to improve accessibility, with a catalogue system in preparation and a Sub-Committee

appointed for reorganizing the library and expanding the reading space to accommodate more students.

Between 1929 and 1931, the library continued its expansion, increasing from 9300 volumes in 1929 to 9515 volumes by the end of 1931, with the estimated value rising from Rs. 24,775 to Rs. 27,000.56. The Catalogue with card indices was nearly completed in 1929 and fully organized by 1930 for books across Science, Arts, and Engineering.

A key figure in this period was Babu Nalinakshya Bhattacharjya, who had overseen the library for four years before his passing in 1929, after which Babu Manindra Chandra Roy, M.A., took charge. Several notable additions enriched the collection, including Bhandarkar's edition of the Mahabharata and another edition in Bengali script edited by Pandit Haridas Sidhantabagish in 1930.

In 1931, the library gained another significant contribution—Srijut W. M. Roy's donation of History of Europe by Allison, a comprehensive work spanning 22 volumes. The library's facilities and resources continued expanding to meet the growing academic needs of its users, reinforcing its role as a valuable institution for research and learning.

5.2.2 Central Library:

The Jadavpur University Library was established in 1955, concurrent with the founding of the University, to serve the academic and research requirements of faculty members, research scholars, students, officers, and non-teaching staff. Over the decades, it has steadily evolved and expanded to meet the growing demands of its users. Today, it stands as one of the most well-equipped and respected academic libraries in the country. The University is proud of its library system, which comprises the Central Library, Salt Lake Campus Library, 36 Departmental Libraries under the Faculty of Arts, Science, Engineering and Technology, and attached with the Schools and Centres for studies under the

Faculty of Interdisciplinary Studies Law and Management. The Central Library of Jadavpur University is one of the central facilities used by all types of members of this University and also by the scholars of other institutions.

Between December 1955 and March 1958, Jadavpur University undertook significant infrastructure development, including plans for a dedicated Central Library building. In 1956, a proposal was drafted for a 30,000 sq. ft facility, supported by a Rs. 600,000 grant from the University Grants Commission and the State Government. This led to the construction of a three-storied library to accommodate its expanding collection. In 1999, the university initiated the construction of an Annex building, with the University Grants Commission providing an initial Rs. 1,000,000 for a one-storied structure. The Central Library of Jadavpur University functions within a three-storied building, offering 36,000 square feet of shelf and working space, with an Annex building currently under development to add 5,500 square feet per floor—totalling 22,000 square feet upon completion. Since its inauguration on 5th September 2018, the Accessible Library for Persons with Disabilities, located on the ground floor, has further enhanced inclusivity. The library is organized into multiple specialized sections spread across its levels: the ground floor houses circulation services, membership, general reading, and the main stack area, along with the Bound Volume Section on a mezzanine floor; the first floor accommodates book selection and ordering, serials, old and rare collections, reprography, the computer lab under CLDL, the chief librarian’s office, and binding units; while the second floor provides catalogueuing, reference, and book labelling services. The Annex Building supplements these functions with dedicated spaces for bound volumes, digital documentation, a learning resource centre, seminar-cum-reading rooms, and the Thesis and Digital Archive Section, reflecting the library's ongoing commitment to modernization, accessibility, and efficient academic service.

Established in September 2003 under the UGC's UPE programme, the Centre for Digital Library and Documentation at Jadavpur University serves as a pivotal hub for digital academic services. Equipped with a Learning Resource Centre housing sixty computer nodes, the Centre provides a broad spectrum of services including access to online journals, e-books, and databases; internet research facilities; the development of the Institutional Repository; digital archiving of rare texts, Ph.D. theses, and Master's dissertations; and the uploading of university question papers since 2005. Additionally, it facilitates documentation and thesis uploads under the Shodhganga project, supports Online Library Clearance processes, and extends its reach beyond campus through the Remote-X platform.

The Accessible Library for Persons with Disabilities, located on the ground floor of the Central Library at Jadavpur University, was inaugurated on 5th September 2018 and currently serves approximately 150 users. This dedicated facility offers a range of accessible formats including audiobooks, Braille books, PDFs, and e-texts, supported by four computers equipped for user access. Students can explore digital resources from platforms such as Sugam Pustakalaya, Book share, JSTOR, Project Muse, and RNIB Book share, using assistive software like JAWS Professional, NVDA, MAGIC 14, OPEN BOOK 9, and Read (Braille). The library has acquired 35 Braille books from Lalbihari Shah Braille Academia and 14 from the Ramakrishna Mission Blind Boys' Academy, Narendrapur. Additionally, it has received a donation of 18 Braille volumes of Rabindra Rachanabali from the Society for the Visually Handicapped and has also produced embossed Braille books in-house. The Accessible Library further extends support by providing mail services for resource delivery. Complementing this facility, the Centre for Digital Library and Documentation, located on the first floor of the Central Library, is also utilized by visually impaired students, with two of its systems installed with NVDA software to enhance access to digital resources.

5.2.2.1 Reading and Digital Facilities:

The Central Library offers eight reading rooms, five carrels, and one alcove for bound journal volumes, accommodating up to 800 readers simultaneously. The Centre for Digital Library and Documentation, established in November 2003, provides digital resources via the Library Portal. With 60 terminals, four servers, and a dedicated reading room, it enhances accessibility. The Salt Lake Campus Library is linked with the Central Library and is equipped with two servers and 16 terminals for student access.

5.2.2.2 Safety & Accessibility:

To ensure ease of access, the library features floor plans, signboards, and special accommodations for differently-abled users. A fire alarm system is installed in the Learning Resource Centre, and ABC-type fire extinguishers are strategically placed across all floors. The Special Education and HEPSN cell maintains a unique collection of Braille books and talking books for visually impaired readers.

The Salt Lake Campus of Jadavpur University features a dedicated library building, which functions as the Campus Central Library (CCL) and forms an integral part of the broader university library system. Mirroring the operations of the Central Library on the main Jadavpur campus, the CCL manages all core library functions independently at the Salt Lake location. The library occupies approximately 6,940 square feet on the ground floor, and construction of the first floor—spanning an equivalent area—has recently been completed, further enhancing its facilities and capacity.

5.2.3 Chief Librarians:

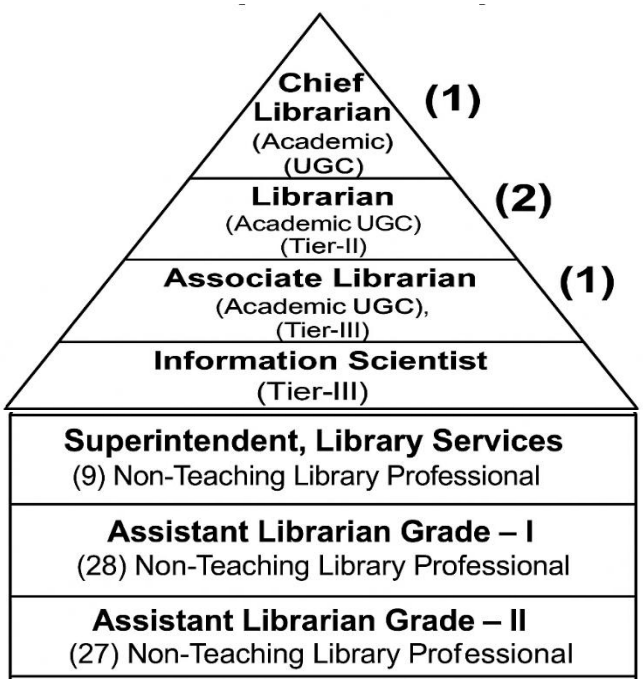
Sri Niranjan Mitra was the first Librarian and the In-Charge of the University Library from 1950 to 17th June 1958. He introduced the Universal Decimal Classification (UDC) system in the library to classify and arrange the documents.

On 18th June, 1958 Sri Ajit Kumar Mukhopadhyay joined as the University Chief Librarian (The Chief Librarian post was created at that time). In the year 1957-58, the total staff of the library was nine consisting of three professional staff, three clerical staff, two student assistants and one duftry. In 1958-59 the total staff increased to sixteen, among them there was one Chief Librarian, one Librarian, one Assistant Librarian, seven Library Assistants, four Cataloguer and two student assistants (part-time).

From 1958 to 2025 the Chief Librarians of Jadavpur University were:

Sri Ajit Kumar Mukhopadhyay, Dr. Aditya Kumar Ohdedar, Dr. Ajoy Ranjan Chakraborty, Srimati Krishna Dutta, Sri Ramakrishna Saha, Dr. Binod Behari Das, Sri Manilal Murmu (Officiating) and Dr. Shrabana Ghosh (Presently Officiating).

5.2.4 Administrative structure: The present staff pattern of the Jadavpur University is given the below picture:



Administrative Hierarchical Library Pyramid of Jadavpur University

Sl. No	Designation	Strength of Sanctioned Post	Status
1.	Chief Librarian	1	Academic (UGC), (Tier-I)
2.	Librarian	2	Academic (UGC), (Tier-II)
3.	Associate Librarian	1	Academic (UGC), (Tier-III)
4.	Information Scientist	1	Officer (Tier-III)
5.	Superintendent Library Services	9	Non-Teaching Library Professional
6.	Assistant Librarian Grade – I	28	Non-Teaching Library Professional
7.	Assistant Librarian Grade – II	27	Non-Teaching Library Professional

Administrative hierarchy of the Jadavpur University Library System

5.2.5 Library Committee:

The responsibility for procuring appropriate library resources is conventionally vested in the Library Sub-Committee. At Jadavpur University, the overall management and governance of the library system are entrusted to a statutory authority known as the University Library Sub-Committee. This body holds comprehensive powers and responsibilities, including the formulation, revision, and implementation of library rules and policies, thereby guiding the continuous development of the university's library infrastructure.

The Central Library Sub-Committee of the University comprises the following members:

a) Vice-Chancellor, Chairman;

b) Deans of the Faculty Councils;

c) Registrar;

d) All Heads of Departments;

e) Chief Librarian as the Secretary;

f) one expert in the field of Library Science nominated by the University‘s Executive Council (EC);

g) two members nominated by the EC;

h) two representatives of non-teaching staff nominated by EC;

i) three students nominated by the EC.

An E-resource Procurement Committee has been constituted under the aegis of the University Library Committee to provide expert guidance on all aspects of e-resource acquisition. This committee is entrusted with evaluating procurement strategies, assessing resource requirements, and formulating recommendations. Its final proposals are submitted to the University Library Committee for review and formal approval.

As per the directive issued by the Executive Council through Circular Ref. No. REC/N/3612/99 dated 10.07.1999, each academic department has constituted a Departmental Library Committee (DLC). Empowered with full executive authority, the DLC is responsible for the development, maintenance, and administration of the respective Departmental or Seminar Libraries, in accordance with the Library Rules of the University.

The composition of each Departmental Library Committee includes the following members:

a) Head of the Department - Chairman

b) Departmental Librarian - Convenor

c) Four teachers of the department concerned, nominated by the Board of Studies (BOS), including the Chairperson of the Teacher Student Committee.

d) Four students of whom two should be from UG classes, and one each from the PG (Day) and PG (Evening) students. Departments that have no evening section will be only one representative from the PG section.

e) One representative of the Research Fellows/Associates of the department and

f) The Chief Librarian is a permanent invitee.

As per the circular, the Departmental Committee shall meet at least four times a year.

A Library Sub-Committee has also been constituted for the Salt Lake Campus Library, vested with executive powers and functional responsibilities. This Sub-Committee is entrusted with overseeing the development and administration of the Campus Library in accordance with the Library Rules of the University.

5.2.5.1 Objectives of the University Library Committee:

i. To render advisory decisions regarding different library policies & terms.

ii. To recommend general methods for allotment of funds purchasing library materials and their processing;

iii. To help the Chief Librarian to take decisions concerning the management of libraries and development of the libraries;

iv. To approve the selection procedure;

v. To approve the procurement procedure.

It is the responsibility of the Chief Librarian as a convener to keep track of all records of the meetings.

5.2.6 Library Service:

The libraries of Jadavpur University offer a comprehensive suite of academic and research services tailored to the needs of students, faculty members, research scholars, university officers, and visitors from other educational institutions. Key services include circulation facilities (issue and return of books), access to reading rooms, printed and electronic journals, and rare and archival collections. Users benefit from both traditional and digital catalogueuing tools such as the card catalogue, OPAC, and Web OPAC systems. The library also provides reference and documentation services, reprography, inter-library loan, and information dissemination tools like the Current Awareness Service (CAS) and Selective Dissemination of Information (SDI). Additionally, the Jadavpur University Digital Library offers remote access services restricted to faculty members, officers, and research scholars. All borrowing privileges and service

access are governed by clearly defined regulations that vary according to user category and apply uniformly across the Central and Departmental Libraries.

5.2.6.1 Library Hour: Monday to Friday : 10.00 am to 8.30 pm.

Saturday : 10.00am to 5.30 pm.

Sunday : 11.00 am to 6.00 pm.

(Library Service is closed on Government Holidays)

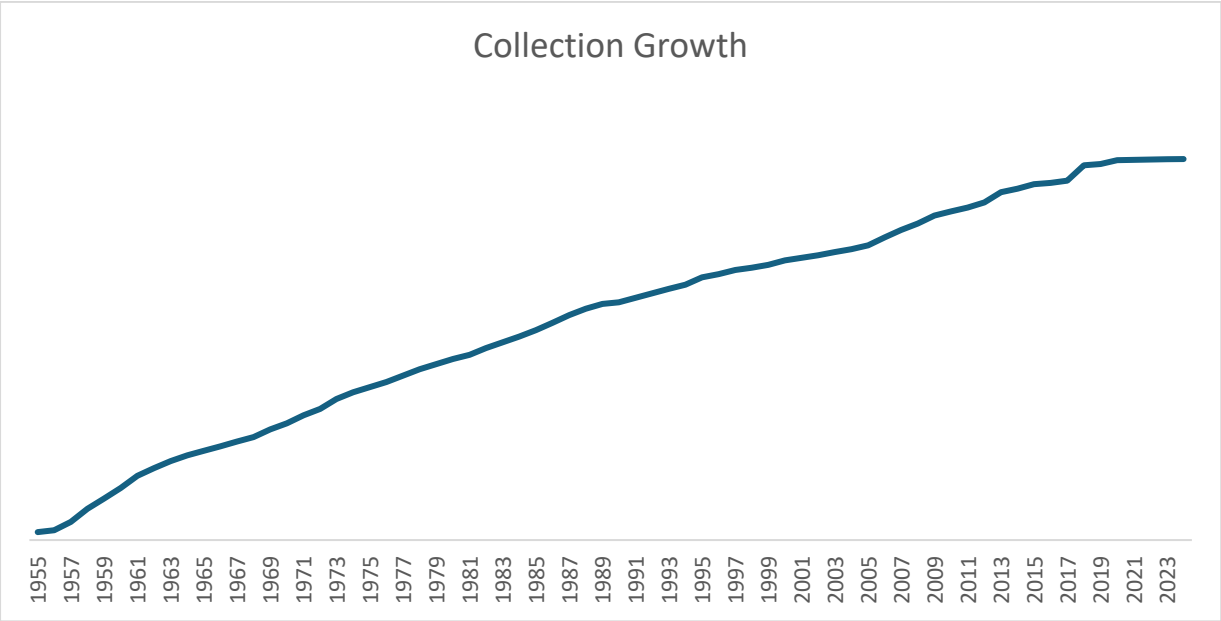
5.2.6.2 Borrowing Privileges of the User

Membership Category	**Central Library (No of books)**	**Department Library (No of books)**	**Reading / Reference/Digital Card(Only for reading , reference and data search)**	**Total Number of Cards**
Under Graduate	**2**	**3**	**1**	**6**
Post Graduate	**3**	**3**	**1**	**7**
Ex-student/staff	**3**		**1**	**4**
Teacher	**5**	**10**	**1**	**16**
Research Scholar	**3**	**2**	**1**	**6**
Officers	**10**		**1**	**11**
Non-teaching Staff	**3**		**1**	**4**
Part-time Teacher	**3**		**1**	**4**
Professor Emeritus	**5**	**5**	**1**	**11**
Non-Jadavpur University	**2**		**1**	**3**
Temporary User	**-**	**-**	**1**	**1**

5.3 Growth and Development of the Book Collection:

Academic libraries are vital components of universities, serving not only as repositories of knowledge but also as dynamic centres for learning, research, and intellectual development. The size, scope, and evolution of a library's collection are indicative of the institution's academic priorities, research trends, and financial allocations over time. This chapter presents a detailed analysis of the growth and development of the book collection of the Jadavpur University Library from 1955–56 to 2023–24, using both quantitative and qualitative data. The aim is to identify patterns in collection development, interpret historical trends, and propose strategic recommendations for future improvements.

The library began with an opening stock of 14,502 books in 1955–56. As of 2023–24, the collection has expanded to 693,909 books, marking an increase of 679,407 books over 69 years. This equates to an average annual addition of approximately 9,846 books.



5.3.1 General Overview: Jadavpur University library system started functioning with 14502 books in 1955. At present the stock of library is about 693909 books as on 31st March 2024. So during this period (1955 - 2024) of 69 years 679407 books were added to the stock. Over the 69year period analysed, the library has added a significant number of physical books. This reflects a long history of collection development.

5.3.1.1 Maximum Books Added (27,843 in 2016-2017): This year stands out as an exceptional

period of acquisition. It could represent a specific large purchase, donation, or a targeted collection expansion effort. Inclusion of 23965 and 21781number of books in 1957-1958 and 1960-1961 as marked as second and third highest addition to the book stock.

5.3.1.2 Minimum Books Added (437 in 2022-2023): This recent figure is remarkably low compared to the historical average and even the years immediately preceding it. It signals a dramatic decrease in physical book acquisition in that specific year. The years 2020-2021 (595 books), 2021-2022 (566 books), and 2023-2024 (567 books) are also extremely low.

5.3.1.3 Average Annual Growth (9846.48 books): On average, nearly 10,000 books were added each year. However, the plots show this average masks significant variations over time.

$$\text{AAGR} = \frac{\text{Final} - \text{Initial}}{\text{Years}} = \frac{693{,}909 - 14{,}502}{69} \approx 9{,}846 \text{ books/year}$$

Annual Average inclusion of books is 9846 books per year.

5.3.1.4 Statistical Summary of Annual Additions

Metric	**Value**
Maximum Books Added (in a year)	27,843 (2017–18)
Minimum Books Added (in a year)	437 (2022–23)
Mean Annual Addition	~9,841 books/year
Median Annual Addition	~8,242 books/year
Standard Deviation (approx.)	~ 4,930 books
Total Number of Years Analysed	69

5.3.1.4Annual Growth Rate (%):

To understand how aggressively the library expanded each year, I have calculated the annual growth rate:

$$\text{Growth Rate} = \left(\frac{\text{Books Added}}{\text{Opening Stock}} \right) \times 100$$

A skewness value of approximately 1.17 is positive.

This indicates that the distribution of the data is positively skewed or right-skewed.

This means the tail on the right side of the distribution (higher values) is longer or fatter than the left side. There are more data points clustered on the lower end,

with fewer, more spread-out high values (like the years with 23965, 21781, 27843 books added pulling the tail to the right).

In a right skewed distribution , the mean is typically greater than the median.

5.3.2 Decadal Growth Trends in Library Collection Development:

The evolution of the university library's collection over nearly seven decades reveals distinct phases of expansion, stabilization, and strategic restraint, shaped by institutional priorities, funding patterns, and shifts in information access models.

Between 1955 and 1975, the library experienced a period of remarkable growth, with annual additions averaging over 13,200 books. This surge in acquisition—fuelled by post-independence academic momentum and strong infrastructural support—laid the foundation for a comprehensive academic resource hub. The consistency of annual additions above 10,000 volumes underscores the robust investment in knowledge infrastructure during the formative decades.

From 1975 to 1995, the collection entered a phase of stable yet gradually slowing growth, averaging around 10,000 books per year. Though acquisition remained steady, instances like the 1989–90 low of 3,161 books signalled emerging constraints. This period likely reflects a plateauing of core subject holdings and more measured procurement policies.

The years 1995 to 2015 marked a definitive slowdown, with average annual growth dipping to the 4,000–8,000 range. Contributing factors may include tighter budgets, evolving user needs, and the onset of digital resource integration. This shift in strategy continued into the 2015–2024 stagnation phase, where most years saw fewer than 1,000 physical additions. The lone exception, a spike of 27,843 books in 2017–18, stands out as a potential one-time bulk acquisition.

Most notably, the 2020–2024 period reflects a critical plateau, with an average of just 541 books added annually. The lowest recorded growth—437 books in 2022–

23—exemplifies the minimal expansion seen in recent years, likely driven by strategic prioritization of digital collections, space constraints, or reallocation of resources.

Sample of Notable Years:

Year	Opening Stock	Books Added	Growth Rate (%)
1956–57	18,077	14,846	82.1%
1957–58	32,923	23,965	72.8%
2020–21	691,744	566	0.08%
2022–23	692,905	437	0.06%
2017-18	654540	27843	4.25%

Growth rate was above 50% in early years but dropped to under 1% after 2020. During 1956-1957 and in 1957-1958 the growth rate was 82.1 % and 72.8% respectively. During 2020-21 it lowered to 0.08%, and the lowest growth observed in 2022-2023 with 0.06%. The year 2017-2018 is also a notable year for the JU Book Collection history. During this period the maximum 27843 books were included into the stock, which is the highest, the maximum addition of books in the history of JU library system. Lowest number of books added in 2022-23 Only 437 books were acquisitioned.

5.3.3 Growth Analysis:

a. Decadal Growth:

Decade	Opening Stock	Closing Stock	Books Added	Average book added / Year
1955–1965	14,502	162,220	147,718	14772
1965–1975	162,220	278,627	116,407	11640
1975–1985	278,627	382,259	103,632	10363
1985–1995	382,259	478,321	96,062	9606
1995–2005	478,321	537,026	58,705	5871
2005–2015	537,026	647,924	110,898	11090
2015–2024	647,924	693,909	45,985	5109

The decadal growth trajectory of the university library's collection reveals distinct developmental phases influenced by academic demand, policy environments, and technological evolution. From 1955 to 1975, the library underwent a high-growth phase, averaging over 13,200 books annually—driven by aggressive post-independence expansion, institutional consolidation, and likely robust infrastructural and policy support. Between 1975 and 1995, growth stabilized, with average yearly additions around 10,000 volumes. Although acquisition remained steady, occasional dips—such as the notably low 3,161 additions in 1989–90—reflected the beginning of a gradual deceleration. The period from 1995 to 2015 marked a clear slowdown, with acquisitions declining to a range of 4,000 to 8,000 books per year, likely influenced by funding limitations, space constraints, or a strategic turn toward digital resources. The decade from 2015 to 2024 represents a stagnation phase: annual additions dropped below 1,000 in most years, with the exception of a sharp spike in 2017–18 (27,843 books), potentially due to one-time bulk procurement. Most telling is the recent plateau from 2020 to 2024, where the library added an average of just 541 books per year, indicating acute fiscal constraints, saturation of core collections, or a firm pivot

toward non-print acquisitions. The lowest recorded annual addition—437 books in 2022–23—further underscores the critical need to re-evaluate collection development strategies in light of evolving institutional and technological contexts.

Notable Years:

Year	Opening Stock	Books Added	Growth Rate (%)
1956–57	18,077	14,846	82.1%
1957–58	32,923	23,965	72.8%
2020–21	691,744	566	0.08%
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- Fastest growth occurred in the 1955–1965 decade.
- Significant drop in annual additions after 1990s, especially from 2015 onward.

5.3.4 Trend Over Time

5.3.4.1 Phase-wise Trend:

The growth of the university library's collection can be broadly categorized into five distinct phases. Between 1955 and 1975, the library experienced a period of rapid expansion, with annual acquisitions averaging over 11,000 books. This momentum began to taper between 1975 and 1995, marking a phase of gradual decline with average yearly additions around 9,000 to 10,000 volumes. From 1995 to 2010, the pace slowed further, with annual growth ranging between 6,000 and 8,000 books. The period from 2010 to 2023 reflected noticeable stagnation, with acquisitions dropping to approximately 2,000 to 6,000 books per year. Most strikingly, the years 2020 to 2024 witnessed an era of extremely slow growth, often with fewer than 1,000 books added annually, indicating a significant shift in collection strategy or resource allocation.

Year	Books Added
2020–2021	566
2021–2022	595
2022–2023	437
2023–2024	567

Between 2020 and 2024, the university library recorded consistently low physical acquisitions, with annual additions remaining below 600 books—specifically 566 in 2020–2021, 595 in 2021–2022, 437 in 2022–2023 (the lowest on record), and 567 in 2023–2024. This prolonged decline suggests possible factors such as constrained budgets, shifts in procurement policies, or a strategic emphasis on digital content. In contrast, the peak of acquisitions occurred in 1957–1958, when the library added a remarkable 23,965 books, marking a period of vigorous expansion.

5.3.4.2 Cumulative Growth Visualization (Summary)

A line graph plotting total number of books against year would reveal a distinct three-phase growth pattern: an initial steep ascent up to around 1975, reflecting rapid collection expansion; a more moderate, gradual rise spanning 1975 to 2010, indicative of steady but slowed acquisitions; and a marked flattening of the curve from 2010 to 2024, highlighting a significant tapering in the addition of physical books.

5.3.4.3 Moving Average (Last 5 Years) To smooth out year-to-year fluctuations:

Year	5-Year Moving Average of Books Added
2019–2023	(6701+566+595+437+567)/5 = 1,373
2018–2022	(2660+6701+566+595+437)/5 = 1,791
2017–2021	(27843+2660+6701+566+595)/5 = 7,473

An analysis of five-year moving averages confirms a sharp and consistent decline in the rate of new book acquisitions by the university library. Between 2017 and 2021, the average annual addition stood at 7,473 volumes, which dropped to 1,791 between 2018 and 2022, and further declined to just 1,373 by 2019–2023. These figures highlight a pronounced downturn in collection growth. Historically, the library experienced an explosive expansion during its formative decades (1955–1975), followed by a period of relative stability that extended into the early 2000s. However, post-2015, a steep decline in physical acquisitions became evident. The years following 2020 have seen minimal additions—frequently under 1,000 books annually—pointing to a possible strategic pivot toward digital resources, constrained financial allocations, or evolving procurement policies focused on curated and accessible content.

5.4 E-book

5.4.1 Analysis of the Growth and Development of the Perpetual E-book Collection at Jadavpur University (2014–2023)

‘E-Books are digital representation of printed material which are available in PDF or HTML etc. These can be fully indexed, searchable through OPAC, Google, publisher platform etc. and readable on any kind of e-Reader or PDA. Finally

most important thing is that eBook chapters are retrievable through metadata. Jadavpur University started their e-books procurement from 2014. During the 2014-2015 financial year the university started their e-book procurement journey by purchasding1017 e-books on perpetual basis. The EBSCO Discovery Service provides a unified and customized index of Jadavpur University's information resources, enabling users to access diverse content through a single, integrated search interface. It functions by aggregating metadata from both internal repositories and external databases, organizing it into a comprehensive, pre-indexed platform for seamless discovery.

YEAR	Number of E Book Purchased	TOTAL	AGR%
2014-2015	1017	1017	0
2015-2016	0	1017	0
2016-2017	0	1017	0
2017-2018	2063	3080	103%
2018-2019	1730	4810	-16%
2019-2020	691	5501	-60%
2020-2021	1478	6979	114%
2021-2022	1154	8133	-22%
2022-2023	774	8907	-33%

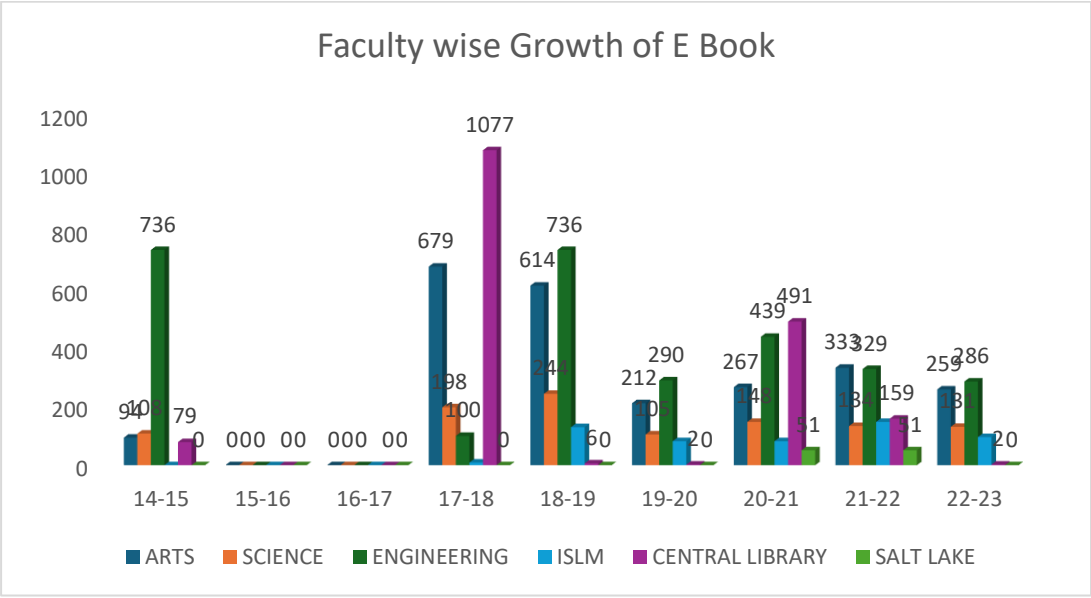
Between the academic years 2014–2015 and 2022–2023, Jadavpur University significantly expanded its perpetual e-book collection. The collection began with the acquisition of 1,017 e-books in 2014–2015. However, no additional purchases were made in the following two years (2015–2017), suggesting either a strategic pause, funding constraints, or policy deliberations.

A marked turning point occurred in 2017–2018 with the addition of 2,063 e-books, representing a 103% increase in the total collection. This surge may reflect the implementation of new acquisition strategies or increased funding allocations. The upward trajectory continued into 2018–2019 with the acquisition of 1,730 titles; however, the annual growth rate declined by 16%, indicating a tapering effect after the previous spike.

In 2019–2020, acquisitions dropped sharply to 691 e-books, a 60% decrease from the previous year. This decline might be attributed to budgetary adjustments or institutional shifts in procurement focus. The 2020–2021 period reversed this trend, with 1,478 titles added—an increase of 114%—which may be associated with the university's pivot to digital resources in response to COVID-19-induced disruptions.

The subsequent years, 2021–2023, witnessed a gradual slowdown in acquisitions (1,154 and 774 new titles, respectively), with annual growth rates of –22% and –33%. These figures suggest a possible stabilization in collection development or a strategic redirection toward licensing and access models over perpetual ownership.

Overall, the perpetual e-book collection expanded from 1,017 in 2014–2015 to 8,907 in 2022–2023, evidencing a nearly 8.8-fold increase over nine years. This growth trajectory underscores the dynamic and responsive nature of the university's digital resource planning, although the recent decline raises important questions about sustainability and policy direction.



The dataset reflects e-book procurement trends across six academic units—Arts, Science, Engineering, ISLM, Central Library, and Salt Lake—over a nine-year period. The total number of e-books procured during this time was 8,907.

5.4.2 Faculty-Wise Trends

- **Engineering:** Engineering faculty consistently led in procurement, accounting for 32.7% of total acquisitions (n = 2,916). After a peak in 2014–2015 (n = 736), there was a sharp decline, followed by a resurgence in 2019–2021. This pattern suggests a shift from initial bulk acquisition to more targeted procurement strategies.
- **Arts:** The Arts faculty showed a delayed but substantial uptake beginning in 2017–2018 (n = 679), maintaining moderate consistency thereafter. With a total of 2,458 e-books (27.6%), this reflects a growing emphasis on digital humanities and interdisciplinary resources.
- **Science:** Science acquisitions were modest and steady, total 1,068 (12%). The relatively flat trend may indicate either budgetary constraints or a preference for shared resources via the Central Library.
- **ISLM (Information Science & Library Management):** Procurement began in 2017–2018 and grew steadily, peaking in 2021–2022 (n = 148). The total of 547 e-books (6.1%) aligns with the department's evolving curricular needs and digital literacy focus.
- **Central Library:** A notable spike occurred in 2017–2018 (n = 1,077), likely reflecting a centralized acquisition initiative. However, subsequent years saw erratic figures, suggesting a shift toward decentralized or faculty-specific procurement.
- **Salt Lake Campus** Procurement began only in 2020–2021, with a total of 102 e-books. This late start may be attributed to infrastructural or administrative delays in digital integration.

5.4.3 Growth and Acquisition Rate (AGR)

The Compound Total (CT) shows a steady increase, but Growth and Annual Growth Rate (AGR) figures reveal volatility:

Highest growth occurred in 2017–2018 (AGR = 103%), likely due to policy shifts or funding boosts.

Negative AGRs in 2018–2019 and 2019–2020 (-16% and -60%, respectively) suggest budget cuts or procurement pauses.

A rebound in 2020–2021 (AGR = 114%) indicates renewed investment, possibly in response to remote learning demands during the pandemic.

The data suggests a non-linear procurement strategy, influenced by external factors such as funding cycles, curriculum revisions, and infrastructural readiness. Engineering and Arts dominate in volume, while ISLM and Salt Lake show emerging trends. The Central Library's fluctuating role hints at evolving procurement decentralization.

Besides the perpetual E book , university subscribed millions of E book through data base subscription.

5.5 Data Base:

The data reflects the number of databases subscribed to by the institution over an eight-year period. The trend suggests a fluctuating but overall upward trajectory, with a significant increase in the most recent year.

Academic Year	No. of Databases	Year-on-Year Change	Percentage Change
2017–2018	19	–	–
2018–2019	16	-3	-15.8%
2019–2020	21	+5	+31.3%

2020–2021	20	-1	-4.8%
2021–2022	21	+1	+5.0%
2022–2023	20	-1	-4.8%
2023–2024	24	+4	+20.0%
2024–2025	37	+13	+54.2%

- The initial dip in 2018–2019 may reflect budgetary constraints or a strategic re-evaluation of subscriptions.
- The sharp rise in 2019–2020 and again in 2023–2025 suggests renewed investment, possibly aligned with curriculum expansion, research priorities, or digital transformation initiatives.
- The 54.2% increase in 2024–2025 is particularly noteworthy, indicating a major acquisition phase—potentially driven by institutional policy shifts, accreditation requirements, or increased funding.

The trend in database subscriptions at Jadavpur University from 2017–2018 to 2024–2025 reflects a strategic expansion of digital resources to support academic and research priorities. Beginning with 19 databases in 2017–2018, the number initially dipped to 16 in 2018–2019, potentially due to budgetary adjustments or resource consolidation efforts. This was followed by modest fluctuations until 2022–2023, when the total stabilized around 20–21 databases annually. A significant surge occurred in 2023–2024 and 2024–2025, with subscriptions rising to 24 and 37 respectively—marking a 54.2% increase in the final year alone. This pattern suggests renewed investment in digital infrastructure, likely influenced by curriculum reforms, accreditation drives, or increased research activity across disciplines. Overall, the data indicates a deliberate and increasingly ambitious commitment to enhancing access to scholarly content and fostering a robust digital learning environment.

The data indicates a strategic scaling of digital resources, with recent years showing a strong commitment to expanding access to scholarly content. This trend aligns with broader academic goals of enhancing research infrastructure and supporting interdisciplinary scholarship.

A brief account of Data base of Jadavpur University is given below:

1.Academic Complete & Library Thing for Libraries Book Cover Widget Package Publisher: ProQuest

The Academic Complete collection by ProQuest is a multidisciplinary eBook platform offering a broad and growing selection of scholarly titles from numerous academic publishers. It provides institutions with access to an expansive library of academic eBooks across diverse subject areas, supporting research, instruction, and lifelong learning through a unified digital interface.

Integrated within this offering, the Library Thing for Libraries Book Cover Widget Package enhances user engagement and discovery by adding visual and metadata enrichment tools to library catalogues. Drawing from a database of over 75 million books and more than 95 million library-curated tags, the widget delivers dynamic book cover images, user-generated content, and subject-based browsing features to improve the search and selection experience for library users.

Together, these tools offer a comprehensive solution for academic libraries seeking to expand eBook access while promoting intuitive, enriched interactions with their digital collections.

2. ACM Digital Library Publisher: Association for Computing Machinery (ACM)

The ACM Digital Library is a comprehensive research, discovery, and networking platform developed by the Association for Computing Machinery (ACM), the world's largest educational and scientific computing society. It offers

the full-text collection of ACM's own publications, which includes 45 Transactions, 994 Conference Proceedings, 69 Newsletters, 10 Hosted Content volumes, and a growing catalogue of technical magazines, journals, and books.

In addition to ACM's core content, the platform hosts curated full-text publications from selected computing and information science publishers. Central to the ACM Digital Library is the ACM Guide to Computing Literature—a robust bibliographic database indexing a wide corpus of global scholarly material in computing and allied disciplines.

The platform supports scholarly inquiry through rich interlinkages between authors, institutions, subject domains, and communities of practice, fostering interdisciplinary exploration and academic collaboration in the computing research ecosystem.

3. Area Studies: India Publisher: Adam Matthew Digital (SAGE)

Area Studies: India is a curated digital archive offering primary source materials that explore the history, culture, literature, and political evolution of the Indian subcontinent between 1650 and 1942. Drawing from the collections of the National Library of Scotland and other notable repositories, the database presents a multifaceted view of British colonial rule and the emergence of Indian nationalism.

Sub-collections include:

- Indian Newspaper Reports (c. 1868–1942): Hundreds of Indian-language and English-language newspapers compiled and published by the Indian government.
- Colonial Fiction (1712–1933): A rich corpus of prose, poetry, drama, and non-fiction reflecting colonial-era literary culture.

- Papers of Lord Curzon (1859–1925): Archival material documenting the administrative policies and personal reflections of the British Viceroy.
- India in the Age of Empire: Featuring the fully illustrated 8,000-page diary of Michael Pakenham Edgeworth (1828–1867), alongside other travelogues and manuscripts chronicling daily life, imperial governance, and transnational encounters.

This resource offers unique insights into South Asian colonial encounters, cultural expressions, and socio-political transformations during a pivotal historical epoch.

4. ASCE Library Publisher: American Society of Civil Engineers (ASCE)

The ASCE Library is a comprehensive digital platform that delivers an authoritative collection of civil engineering literature published by the American Society of Civil Engineers. Supporting innovation, education, and the United Nations Sustainable Development Goals, this resource facilitates access to advanced research and professional practice materials in civil and environmental engineering.

The collection includes:

- Peer-reviewed journals, books, conference proceedings, technical standards, and magazines
- In-depth coverage of structural, geotechnical, transportation, water resources, and construction engineering
- Current and archival content supporting both academic study and real-world infrastructure development

Widely used by engineers, educators, and researchers, the ASCE Library promotes informed practice and knowledge advancement in civil engineering disciplines.

5. ASME Digital Collection Publisher: American Society of Mechanical Engineers (ASME)

The ASME Digital Collection is a premier repository of engineering scholarship maintained by the American Society of Mechanical Engineers. It serves as a trusted global source for technical standards, peer-reviewed publications, and conference proceedings across a broad spectrum of engineering fields.

Content areas include:

- Bioengineering, mechanical systems, manufacturing, energy technologies, fluid dynamics, robotics, and design engineering
- High-impact journals, eBooks, and conference papers representing current research and emerging trends
- Widely adopted engineering standards supporting innovation and compliance in industrial and academic settings

Designed to accelerate discovery, collaboration, and practical implementation, the ASME Digital Collection is an essential resource for engineers, researchers, and institutions engaged in cutting-edge technological development.

6.Book Supply Bureau (BSB) Publisher: Book Supply Bureau (BSB)

Book Supply Bureau is a prominent ISO 9001:2008 certified organization recognized as one of India's leading providers and distributors of national and international standards. It maintains formal agreements with numerous globally reputed Standard Developing Organizations (SDOs), facilitating the marketing, dissemination, and training related to technical and industrial standards.

With a catalogue comprising over one million documents, BSB serves a wide spectrum of stakeholders—from academic researchers and professionals to industrial practitioners—by offering objective, authentic, and up-to-date access

to published standards across disciplines. Its services support informed decision-making and regulatory compliance across diverse sectors of the Indian economy.

7. British Humanities Index (BHI) Publisher: ProQuest

The British Humanities Index is a comprehensive abstracting and indexing resource dedicated to humanities and arts research. Covering more than 370 high-caliber scholarly journals, weekly magazines, and major newspapers from the United Kingdom, the United States, and other English-speaking countries, BHI offers critical bibliographic access to literature spanning literature, philosophy, history, cultural studies, and related domains.

Renowned for its selectivity and international scope, BHI enables researchers to track emerging discourse, locate critical commentary, and conduct in-depth bibliographic exploration of key humanities subjects.

8. CSD Enterprise Researcher Publisher: Cambridge Crystallographic Data Centre (CCDC)

CSD Enterprise Researcher is a specialized crystallographic database that provides comprehensive access to the Cambridge Structural Database (CSD)—a globally recognized repository of experimentally determined small-molecule crystal structures. With over 900,000 expertly curated entries, the platform supports research in chemistry, materials science, structural biology, and pharmaceutical development.

Equipped with advanced visualization and analysis tools, CSD Enterprise allows researchers to explore molecular geometries, interactions, and packing motifs, facilitating structure-based design and materials innovation at an advanced level of granularity.

9. Early English Books Online (EEBO) Publisher: ProQuest

Early English Books Online (EEBO) is a definitive digital archive that captures the breadth of early modern English print culture. Spanning from the invention of the printing press to the end of the 17th century, the collection contains over 146,000 titles drawn from landmark bibliographies such as Pollard & Redgrave's Short-Title Catalogue (1475–1640) and Wing's Short-Title Catalogue (1641–1700), along with the Thomason Tracts (1640–1661) and the Early English Books Tract Supplement.

This resource includes literary works, religious texts, political pamphlets, scientific treatises, and everyday ephemera, providing scholars with unparalleled insight into the intellectual, cultural, and social dynamics of early modern England.

10. Scopus Publisher: Elsevier

Scopus is a leading abstracting and citation database curated by Elsevier, providing comprehensive coverage of peer-reviewed literature spanning scientific journals, books, and conference proceedings across all major research domains. Recognized for its breadth, depth, and quality assurance processes, Scopus supports interdisciplinary scholarship, research evaluation, and bibliometric analysis on a global scale.

With indexing from over 25,000 active titles and more than 7,000 publishers, the database facilitates robust literature discovery, citation tracking, author profiling, and institutional research performance assessment. Scopus also offers integrated tools for visualizing citation networks, analysing publication trends, and identifying emerging areas of inquiry—making it an indispensable resource for researchers, academic institutions, and policymakers engaged in evidence-based decision-making.

11.EPWRF India Time Series (EPWRFITS) Publisher: Economic and Political Weekly Research Foundation (EPWRF)

EPWRF India Time Series (EPWRFITS) is an extensive and meticulously curated database offering longitudinal, macroeconomic and sectoral data on the Indian economy. Developed by the Economic and Political Weekly Research Foundation, the platform provides continuous and structured time series data, with coverage commencing in many cases from 1950 onwards, depending on data availability.

Organized into 16 thematic modules, the database encompasses over 30,000 variables across diverse domains such as national accounts, price indices, financial markets, banking, public finance, infrastructure, employment, social sector indicators, and more. It serves as an indispensable research tool for economists, policymakers, academics, and development practitioners seeking empirical evidence and analytical insights into India's economic and social transformation.

Its interface supports advanced querying, data visualization, and export functionalities, facilitating both rigorous academic analysis and policy formulation grounded in evidence-based assessments.

12. IEEE Xplore Digital Library Publisher: Institute of Electrical and Electronics Engineers (IEEE)

IEEE Xplore Digital Library is a premier research platform providing full-text access to one of the world's most comprehensive collections of technical literature in electrical engineering, computer science, electronics, telecommunications, and related technologies. Developed and maintained by the IEEE, the platform supports scholarly communication, innovation, and applied research in both academic and industrial contexts.

The database includes an extensive array of high-impact content:

- Over 43,000 conference proceedings, offering cutting-edge research presented at major international symposia and workshops.
- More than 5,000 IEEE standards, supporting technological development, interoperability, and regulatory compliance across sectors.
- A continuously expanding repository of peer-reviewed journal articles, magazine content, and technical papers, authored by leading experts in the engineering and technology fields.

With powerful search and discovery tools, IEEE Xplore is an indispensable resource for students, researchers, educators, and professionals engaged in technology-driven research and development.

13. India, Raj & Empire Publisher: Adam Matthew Digital (SAGE)

India, Raj & Empire is a curated primary source digital archive derived from the collections of the National Library of Scotland. This resource offers extensive documentation of British colonial engagement in the Indian subcontinent and its neighbouring regions during the period of imperial governance.

The collection encompasses a wide array of subject areas, including imperial and colonial administration, social and urban history, trade and economic development, agriculture, transport, antiquities, military affairs, and the rise of Indian nationalism. It also features content related to India's interactions with South and Southeast Asian neighbours.

Materials include the personal and official papers of East India Company officials and colonial administrators, as well as records reflecting everyday life in cities such as Agra, Bombay, Lahore, and Madras. The archive also holds original Indian manuscripts, historical documents, literary works, images, and ephemera—providing comprehensive insight into the cultural, political, and economic dimensions of the colonial experience.

14. Inspec Direct Publisher: Institution of Engineering and Technology (IET)

Inspec Direct is a premier indexing and abstracting database developed and maintained by the Institution of Engineering and Technology (IET), formerly the Institution of Electrical Engineers (IEE). It provides comprehensive coverage of scientific and technical literature in engineering, physics, electronics, computer science, and allied disciplines, supporting both subject-specific and interdisciplinary research.

Spanning more than five decades, Inspec contains over 20 million bibliographic records drawn from peer-reviewed journals, conference proceedings, books, reports, and dissertations. Its precise indexing and controlled vocabulary enable researchers, engineers, and information professionals to perform accurate and granular searches within vast collections of global scholarship. The database remains an indispensable resource for innovation, discovery, and academic inquiry in the applied sciences and technology sectors.

15. Institute for Studies in Industrial Development (ISID) Database Publisher: Institute for Studies in Industrial Development (ISID)

The ISID Database is a specialized digital resource offering comprehensive data and bibliographic content focused on the Indian economy, with a particular emphasis on industrial development and corporate sector dynamics. It encompasses curated databases that support scholarly analysis and policy research across a range of economic and social science domains.

Key components include the On-Line Index (OLI) to Indian Social Science Journals—providing indexed access to a substantial corpus of journal literature published in India—and a Press Clippings Archive that captures policy-relevant content from leading Indian newspapers and periodicals. Together, these resources offer valuable insight into trends, discourse, and empirical

developments in India's socio-economic landscape, serving as a vital tool for researchers, policy analysts, and academic institutions.

16. J-Gate Plus (JCCC) Publisher: Informatics India Ltd. (facilitated in India through UGC-INFONET Consortium)

J-Gate Plus, also known as the JCCC (J-Gate Custom Content for Consortium) platform, is a comprehensive electronic gateway designed to facilitate seamless access to global e-journal literature. It serves as a bibliographic database and integrated access portal for scholarly articles, offering indexing, abstracting, and full-text navigation across a vast corpus of academic journals.

The platform enables users to discover and retrieve literature spanning a wide range of disciplines, supporting advanced research, teaching, and institutional resource sharing. With its federated search and linking capabilities, J-Gate Plus ensures streamlined access to subscribed and open-access content hosted on publisher platforms, making it an essential tool for libraries operating within consortia frameworks.

17. Lecture Notes in Computer Science (LNCS) Publisher: SpringerLink

Lecture Notes in Computer Science (LNCS) is a well-established academic series published by Springer, serving as a prominent forum for the dissemination of innovative research in computer science and information technology. Since its inception, it has fostered the rapid and high-quality publication of conference proceedings, post-proceedings, monographs, and other scholarly content in an accessible format.

The series encompasses notable subseries including Lecture Notes in Artificial Intelligence (LNAI) and Lecture Notes in Bioinformatics (LNBI), reflecting the interdisciplinary nature and evolving frontiers of computational science. LNCS is particularly valued for its ability to bridge formal rigor with timely

communication, supporting the global academic and professional communities engaged in both foundational and applied research.

18. Lecture Notes in Physics (LNP) Publisher: SpringerLink

Lecture Notes in Physics (LNP) is a distinguished monograph series established in 1969 and published by Springer. It is dedicated to the rapid dissemination of recent developments in physics research and pedagogy. The series maintains high scholarly standards while presenting material in a succinct and accessible format, aiming to facilitate the timely communication of current knowledge across the physics community.

Volumes within the LNP series serve as critical bridges between advanced graduate-level instruction and the cutting edge of scientific research. They are designed to support the professional development of students, educators, and researchers by offering insights into emerging topics, theoretical advancements, and methodological innovations in both experimental and theoretical physics.

19. Library & Information Science Abstracts (LISA) Publisher: ProQuest

Library & Information Science Abstracts (LISA) is a distinguished international abstracting and indexing database tailored to the needs of library professionals, information scientists, and related practitioners. It offers extensive bibliographic coverage of the global scholarly literature in library and information science, encompassing theoretical, methodological, and applied dimensions of the discipline.

The database currently indexes content from over 300 periodicals published across approximately 40 countries and in 20 languages, reflecting the diverse and international nature of LIS scholarship. LISA enables efficient discovery of articles, reports, and reviews, supporting academic research, professional development, and evidence-based practice in areas such as knowledge

organization, information retrieval, digital librarianship, user behavior, and information policy.

20. Literature Online (LION) Publisher: ProQuest

Literature Online is an expansive digital research platform that integrates the full texts of over 355,000 literary works—spanning poetry, prose, and drama—with a substantial body of critical and reference materials. Developed by ProQuest, it offers comprehensive coverage of English-language literature from the eighth century to the present day.

In addition to primary texts, the database provides access to an extensive array of scholarly criticism, author biographies, reference works, and literary journals. Its cross-searchable architecture supports nuanced literary analysis, intertextual study, and the exploration of historical and cultural contexts. Literature Online serves as an essential resource for students, educators, and researchers engaged in literary studies, digital humanities, and interdisciplinary research involving literature and culture.

21. Math-Sci.Net Publisher: American Mathematical Society (AMS)

Math-Sci Net is a rigorously curated electronic publication maintained by the American Mathematical Society, providing authoritative access to a comprehensive, searchable database of reviews, abstracts, and bibliographic information covering the global literature of mathematical sciences. Encompassing journal articles, conference proceedings, books, and other scholarly materials, the database supports advanced research and bibliometric analysis in mathematics and related disciplines.

Its robust review system features expert-written evaluations that facilitate critical assessment of scholarly contributions, while advanced search functionalities enable precise retrieval across subject classifications, authorship, publication venues, and citation contexts. Widely recognized as an indispensable resource for

mathematicians, researchers, and academic institutions, Math-Sci Net enhances scholarly discovery and supports sustained engagement with the evolving landscape of mathematical inquiry.

22.Oxford Bibliographies: Cinema and Media Studies Publisher: Oxford University Press (OUP)

Oxford Bibliographies: Cinema and Media Studies is a curated, peer-reviewed research guide that facilitates scholarly engagement with the expansive and interdisciplinary landscape of visual and media culture. Developed in collaboration with leading scholars, each entry offers in-depth commentary accompanied by critically annotated bibliographic references, directing users to the most authoritative and relevant academic resources.

This module addresses the rich complexity of cinema and media studies, encompassing a wide spectrum of subfields including film history, television studies, critical theory, visual arts, cultural studies, digital culture, game studies, popular culture, and the evolving study of the moving image. By structuring access to both foundational texts and emerging scholarship, it enables efficient navigation of a discipline characterized by methodological diversity and theoretical innovation.

Serving as a vital academic tool, Oxford Bibliographies: Cinema and Media Studies supports researchers, educators, and students in constructing rigorous, up-to-date, and interdisciplinary research pathways within a rapidly transforming cultural and technological environment.

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24. Oxford Bibliographies Online Publisher: Oxford University Press (OUP)

Oxford Bibliographies Online is an authoritative, peer-reviewed reference platform designed to guide academic research across a broad spectrum of disciplines. Each bibliographic entry—written and reviewed by leading scholars—offers in-depth original commentary and critically annotated references, enabling users to identify, contextualize, and engage with core literature and emerging research.

The Education module exemplifies the breadth and interdisciplinarity of the resource. It encompasses topics ranging from teacher retention and curriculum design to early childhood development and education policy. Drawing on perspectives from psychology, sociology, economics, political science,

philosophy, anthropology, and history, it reflects the dynamic and multifaceted nature of educational research today.

As contemporary scholarship increasingly migrates to digital formats, Oxford Bibliographies Online functions as an essential navigational tool, facilitating structured access to credible academic sources in an increasingly complex digital landscape.

25.Oxford Bibliographies: Military History Publisher: Oxford University Press (OUP)

Oxford Bibliographies: Military History is a rigorously curated research resource that offers authoritative, peer-reviewed guidance on the evolving field of military history. Developed by subject matter experts and continuously updated, each entry combines original scholarly commentary with systematically annotated bibliographic references, enabling efficient navigation of foundational texts and contemporary research.

Reflecting the increasingly interdisciplinary nature of military history, the resource encompasses perspectives that extend beyond conventional operational and tactical accounts. It incorporates analyses from political science, sociology, international relations, biography, technological history, and various national historiographies. Covering topics from ancient warfare to modern geopolitical conflict, this platform responds to the shifting academic landscape by foregrounding digital scholarship and providing access to research materials that are often only discoverable through advanced electronic tools.

As such, it serves as an indispensable instrument for students, researchers, and faculty engaged in comprehensive studies of war, conflict, and military institutions across temporal and disciplinary boundaries.

26. Oxford Bibliographies in Communication Publisher: Oxford University Press (OUP)

Oxford Bibliographies in Communication is an authoritative research tool designed to guide scholars and students through the vast and complex field of communication studies. Developed and peer-reviewed by leading academic experts, each entry presents a rigorously curated overview of current scholarship, combining original commentary with critically annotated bibliographic references.

The resource reflects the inherently interdisciplinary nature of communication, encompassing diverse theoretical paradigms, methodological approaches, and topical domains. From interpersonal interaction to global media systems, the platform supports research that examines the transmission, negotiation, and transformation of information across social, cultural, and technological contexts. By offering a structured and reliable gateway to foundational texts and emerging research, it serves as an indispensable resource for academic inquiry and pedagogical development in communication and related disciplines.

27. Oxford English Dictionary Online Publisher: Oxford University Press (OUP)

The Oxford English Dictionary Online (OED Online) is the definitive historical dictionary of the English language, offering unparalleled insight into the development, usage, and etymology of over 500,000 words and phrases used across the English-speaking world. As a foundational reference work for scholars, linguists, and researchers in all disciplines, it traces the evolution of English from its earliest records to the present day.

Each entry in the OED Online provides comprehensive definitions supported by extensive quotations drawn from a wide range of literary, academic, and vernacular sources, illustrating meaning in context over time. With its rigorous

editorial standards and ongoing updates, the OED serves as an authoritative linguistic resource for historical, philological, and interdisciplinary studies.

28. Oxford Reference Online Premium Collection Publisher: Oxford University Press (OUP)

The Oxford Reference Online Premium Collection is a premier digital reference platform that consolidates authoritative content from Oxford University Press's extensive catalogue of dictionaries, companions, encyclopedias, and reference works. Spanning over 25 subject areas, it integrates more than 2 million digitized entries drawn from both general and specialized sources.

This resource supports a broad spectrum of academic inquiry by providing access to both concise definitional entries and comprehensive, in-depth articles authored by subject experts. Designed for cross-disciplinary research and curriculum support, it serves as a foundational tool for students, educators, and researchers seeking reliable and contextually rich reference material across the humanities, social sciences, science, and beyond.

29. Oxford Research Encyclopedias Publisher: Oxford University Press (OUP)

The Oxford Research Encyclopedias (ORE) constitute a dynamic and authoritative reference platform developed in collaboration with international scholarly communities across a broad spectrum of academic disciplines. Each encyclopedia within the series offers rigorously peer-reviewed, in-depth articles that synthesize foundational knowledge with current research trends, supporting both introductory inquiry and advanced scholarship.

Designed to evolve with the progression of scholarly discourse, the ORE series encompasses a wide range of fields—including but not limited to the humanities, social sciences, science, medicine, and law—and is continuously updated to reflect ongoing advancements. Its comprehensive and accessible format positions

it as a vital resource for researchers, instructors, and students seeking high-quality, evidence-based reference materials.

30. ProQuest Dissertations & Theses Global Publisher: ProQuest

ProQuest Dissertations & Theses Global (PQDT Global) is the world's most comprehensive collection of full-text dissertations and theses, representing a critical repository of graduate-level scholarship across disciplines and geographies. The database includes millions of citations and provides full-text access to a vast array of doctoral dissertations and master's theses submitted to institutions around the globe.

With coverage extending from the mid-18th century to the present, PQDT Global supports scholarly research, knowledge dissemination, and the preservation of original academic work. Content is indexed with precision, and advanced search functionalities facilitate efficient exploration of emerging research trends, methodological approaches, and subject-specific studies. It is an indispensable resource for researchers, students, and faculty engaged in high-level academic inquiry.

31. ScienceDirect Publisher: Elsevier

ScienceDirect is a leading full-text scientific database offering extensive access to scholarly literature in the fields of science, technology, and medicine. Hosted by Elsevier, it encompasses a vast collection of peer-reviewed journal articles, book chapters, and open access content, supporting a wide spectrum of academic disciplines and applied research domains.

The platform features content from over 2,500 journals and more than 40,000 books, enabling researchers, educators, and students to engage with high-quality, evidence-based scholarship. With advanced search capabilities, citation linking, and integrated discovery tools, ScienceDirect serves as an essential resource for

conducting literature reviews, supporting academic instruction, and informing evidence-based decision-making.

32. SciFinder Scholar Publisher: Chemical Abstracts Service (CAS), a division of the American Chemical Society (ACS)

SciFinder Scholar is a premier research platform that provides authoritative access to a vast corpus of chemistry-related information. It indexes and summarizes content from over 40,000 scientific journals, encompassing a wide array of disciplines including chemistry, biochemistry, materials science, chemical engineering, and the life sciences.

In addition to journal literature, the database includes comprehensive coverage of patents, conference proceedings, technical reports, and other scholarly documents, facilitating advanced exploration of chemical substances, reactions, structures, and regulatory data. With its robust search functionalities and curated indexing, SciFinder Scholar serves as an indispensable tool for researchers, faculty, and students engaged in scientific discovery and applied research across academic and industrial contexts.

33. SPIE Digital Library Publisher: SPIE Digital

The SPIE Digital Library is the most comprehensive repository of research in the fields of optics and photonics, offering unparalleled access to technical literature published by the International Society for Optics and Photonics (SPIE) from 1962 to the present. It encompasses a vast collection of peer-reviewed content, including SPIE journals, conference proceedings, presentations, and eBooks published by SPIE Press.

With more than 18,000 new technical papers and approximately 25 eBooks added each year, the database supports cutting-edge research and innovation in disciplines such as optical engineering, biomedical optics, nano photonics, sensors, imaging, and related technologies. The platform serves as an

indispensable resource for scholars, engineers, and professionals engaged in the advancement of photonics-based science and applications.

34. Ulrich's Web Publisher: ProQuest

Ulrich's Web is an authoritative online directory and bibliographic database that offers detailed information on serial publications across all subject areas. It includes both academic and popular periodicals—encompassing scholarly journals, magazines, newspapers, and other continuing resources published worldwide.

The database provides essential metadata such as publication frequency, publisher details, ISSN, subject classifications, peer-review status, indexing coverage, and access formats. It serves as a vital tool for librarians, researchers, and collection development specialists in evaluating and managing serial subscriptions, verifying bibliographic details, and identifying open access or peer-reviewed titles.

35. Web of Science Publisher: Clarivate

Web of Science is a premier multidisciplinary research platform that offers a comprehensive citation indexing service across the sciences, social sciences, arts, and humanities. It facilitates in-depth citation searches, enabling users to trace scholarly influence and intellectual networks through cited reference tracking, citation analysis, and journal impact assessment.

Renowned for its rigorous selection criteria and curated content, the database includes high-impact journals, conference proceedings, and other scholarly literature across a wide range of disciplines. Web of Science supports advanced research evaluation, literature reviews, and the identification of emerging trends, making it an essential tool for researchers, librarians, and institutions engaged in evidence-based academic inquiry.

36. Women in The National Archives Publisher: Adam Matthew Digital (SAGE)

Women in The National Archives is a specialized digital resource comprising two principal elements:

1. A detailed archival finding aid: Developed over a five-year initiative by The National Archives (TNA) during the mid-1990s, this tool systematically catalogues documents pertinent to women's studies across all classification levels held by TNA. Distinguished by its breadth and depth, it offers significantly more comprehensive guidance than any comparable online resource currently available.
2. A curated collection of original documents: This component encompasses primary source materials related to the campaign for women's suffrage within Britain (1903–1928) and across the Empire and colonial territories (1930–1962). These documents illuminate the complex socio-political narratives surrounding women's enfranchisement in both domestic and imperial contexts.

Together, these elements provide a critical foundation for scholarly inquiry into the historical development of women's rights, political agency, and institutional documentation practices within and beyond the British state apparatus.

37. World Shakespeare Bibliography Online Publisher: Oxford University Press (OUP)

The World Shakespeare Bibliography Online is a comprehensive, searchable digital resource that documents global scholarship and theatrical activity related to William Shakespeare. Spanning from 1960 to the present, it provides annotated entries for an extensive range of materials, including books, journal articles, book reviews, dissertations, stage productions, performance reviews, audiovisual content, digital media, and other scholarly and popular works.

This internationally focused bibliography encompasses contributions in over 120 languages and covers scholarly output from every country in North and South America, Europe, and nearly all nations across Asia, Africa, and Australasia. The current edition features more than 136,000 bibliographic records and references hundreds of thousands of additional reviews of books, performances, films, and recordings. The database is updated quarterly to reflect the latest developments in Shakespeare studies and performance history.

5.6 Journals and Periodicals

Jadavpur University maintains a robust collection of journals reflecting its commitment to scholarly excellence and digital integration. The current collection, encompassing 6,103 titles**,**

Year	Online Journals	Print + Online Journals	Print Journals (Newspapers, Magazines)
2016–2017	5,365	93	318
2017–2018	7,188	58	313
2018–2019	8,476	55	279
2019–2020	9,615	38	282
2020–2021	10,364	7	199
2021–2022	10,354	6	197
2022–2023	10,484	6	195
2023–2024	7,077	13	195

Between 2016–2017 and 2023–2024, Jadavpur University exhibited a marked shift in its journal acquisition strategy, reflecting the broader transition from print to digital formats in academic libraries. The number of online journals increased steadily from 5,365 in 2016–2017 to a peak of 10,484 in 2022–2023, before declining sharply to 7,077 in 2023–2024. This decline may indicate budgetary recalibrations or a strategic consolidation of digital subscriptions. In contrast, the number of print-plus-online journals declined consistently from 93 to just 13 over the same period, underscoring a diminishing reliance on hybrid formats. Similarly, print-only journals—including newspapers and magazines—saw a gradual reduction from 318 to 195, stabilizing in the final three years. These

patterns suggest a deliberate institutional pivot toward digital-first access models, likely driven by evolving user preferences, space constraints, and the increasing availability of comprehensive e-journal packages. The data aligns with global trends emphasizing immediacy, accessibility, and cost-efficiency in scholarly communication.

As of the 2024–2025 academic year, Jadavpur University maintains a robust collection of journals reflecting its commitment to scholarly excellence and digital integration. The current collection, encompassing 6,103 titles, is managed under the Open National Online Subscriptions (ONOS) framework, which consolidates access to academic resources through a unified national platform. This transition to ONOS not only enhances discoverability and cost-efficiency but also ensures standardized and equitable access to high-quality content across disciplines. The initiative positions the university within a broader national effort to streamline digital resource management and foster a cohesive scholarly communication infrastructure.

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CHAPTER-6

USE OF BOOKS

6.0 The Nature, Evolution, and Significance of Books:

A book is a structured medium for presenting recorded information, primarily through verbal and graphical content. Traditionally physical, books now exist in digital formats such as e-books and audiobooks. Physical books typically consist of printed pages bound together in the codex format, though earlier formats included scrolls and tablets. Conceptually, a book refers to a substantial written work by one or more authors, often categorized into fiction (invented narratives) and non-fiction (factual content). However, not all books contain text—some may feature only images, sheet music, puzzles, or interactive elements.

6.1 Etymology and Definitions:

The word "book" derives from Old English bōc, linked to the Germanic root bōk- meaning "beech," suggesting early writings may have been carved on beech wood. In Slavic languages, the word for "letter" shares this root. The Latin codex, originally meaning "block of wood," evolved to signify a bound book.

A bibliophile, or "bookworm," is someone who loves or collects books. Modern books are typically composed of many pages made of paper, parchment, or vellum. The term "book" can also refer to a division within a larger work, as seen in ancient texts.

Defining a book precisely is challenging due to cultural and technological shifts. Historian James Raven suggests a broad definition: books are "portable, durable,

replicable, and legible" tools for recording and sharing information. This includes e-books, newspapers, and even quipus (knot-based records from Andean cultures), but excludes fixed inscriptions like monuments.

UNESCO offers a stricter definition for statistical purposes: a non-periodical printed publication of at least 49 pages, excluding covers. Scholars have critiqued this for excluding digital formats and propose criteria like length, textual content, defined boundaries, and structured information architecture to classify books.

In library science, a monograph refers to any non-serial publication complete in one or more volumes, distinguishing it from serial publications.

6.2 The Evolution of Books Through History:

Books have long served as essential vessels for knowledge, entertainment, and cultural expression. Their development mirrors the progression of human communication, technological innovation, and societal transformation. This paper explores the major stages in the history of books, tracing their evolution from ancient writing materials to contemporary digital formats.

Ancient Beginnings: The Birth of Writing Materials

The earliest forms of recorded communication emerged in ancient civilizations, utilizing diverse materials to preserve and transmit information.

- Clay Tablets (circa 3500 BCE) In Mesopotamia, the Sumerians inscribed cuneiform script onto wet clay using styluses. These tablets were used to document legal codes, commercial transactions, and literary works, including the Epic of Gilgamesh.
- Papyrus Scrolls (circa 3000 BCE) Ancient Egyptians developed papyrus from the papyrus plant. Scrolls made from this material became the standard medium for religious texts, literature, and administrative records throughout the ancient world.

- Parchment and Vellum (circa 2nd century BCE) As papyrus proved fragile and susceptible to decay, parchment—crafted from animal skins—emerged as a more durable alternative. Its ability to support writing on both sides facilitated the creation of book-like formats.

These early innovations laid the groundwork for the physical and intellectual development of the book.

The Rise of the Codex: A Transformational Format

The codex represented a significant advancement in book design, replacing scrolls with bound pages and offering greater functionality.

- Codex Format (circa 1st century CE) Originating in the Roman Empire, the codex featured bound pages made of papyrus or parchment. It allowed for easier handling, portability, and random access to content.
- Christian Adoption Early Christians embraced the codex for religious texts, particularly the Bible. Its practical format contributed to its widespread adoption across the Roman world.
- Global Dissemination By the 4th century CE, the codex had largely supplanted scrolls in Europe, North Africa, and the Middle East, becoming the dominant format for written works.

The codex's compact and navigable structure remains the foundation of modern book design.

The Middle Ages: Manuscripts and Monastic Production

During the medieval period, books were handcrafted and primarily produced within religious institutions.

- Monastic Scriptoriums (5th–15th centuries) Monks and scribes in monasteries meticulously copied texts by hand, preserving religious doctrine and classical literature.
- Illuminated Manuscripts These manuscripts were embellished with gold leaf, intricate illustrations, and decorative lettering, serving both literary and artistic purposes.
- Limited Accessibility Due to the labor-intensive nature of production, books were rare and expensive, accessible mainly to clergy, scholars, and the elite.

Despite their scarcity, medieval manuscripts played a vital role in safeguarding intellectual heritage.

The Printing Revolution: Gutenberg's Innovation

The invention of the printing press in the 15th century marked a turning point in the history of books, enabling mass production and widespread dissemination.

- Movable Type Printing (circa 1440) Johannes Gutenberg's press in Mainz, Germany revolutionized bookmaking by significantly reducing production costs and time.
- The Gutenberg Bible (1455) One of the first major printed books, it demonstrated the transformative potential of movable type and heralded the beginning of the print era.
- Expansion Across Europe Printing technology spread rapidly, producing thousands of books on religion, science, literature, and exploration. This proliferation fueled the Renaissance, Reformation, and Scientific Revolution.

- Cultural Impact The printing press democratized access to knowledge, challenged established authorities, and reshaped intellectual life in the West.

Gutenberg's innovation transformed books into accessible tools for education and cultural exchange.

Modern Publishing: From Print to Digital Formats

The 19th and 21st centuries introduced profound changes in how books are produced, distributed, and consumed.

- Industrial Printing (19th century) Mechanized printing and the introduction of paperback books made literature affordable and widely available to the general public.
- Publishing Houses The emergence of organized publishing firms facilitated global distribution and marketing, elevating authors to cultural prominence.
- Digital Revolution (21st century) E-books and audiobooks gained popularity, with devices such as Amazon's Kindle offering instant access to vast digital libraries.
- Self-Publishing Technological advancements enabled authors to publish independently, diversifying literary voices and expanding readership.

Today, books exist in multiple formats—print, digital, and audio—reflecting the ongoing evolution of how information and stories are created, shared, and experienced.

The 20th century introduced typewriters, computers, and desktop publishing. In the 21st century, e-books and audiobooks gained popularity, supported by e-readers and accessibility tools. Despite digital growth, physical books remain resilient and continue to thrive globally.

6.3 The Enduring Role of Books in University Libraries and Higher Education:

Books remain a cornerstone of university libraries, serving multiple academic and developmental functions within higher education. Here's a structured overview of their use:

Academic Support and Curriculum Alignment: Books provide foundational and advanced knowledge across disciplines, supporting course syllabi, recommended readings, and reference needs. They help students deepen their understanding beyond lecture content and encourage independent learning.

Research and Scholarly Inquiry: For both students and faculty, books—especially monographs, edited volumes, and reference works—are essential for literature reviews, theoretical grounding, and methodological guidance. They often serve as primary or secondary sources in academic writing and research projects.

Preservation of Knowledge and Cultural Continuity: University libraries curate collections that include historical texts, rare editions, and regionally significant publications. These materials preserve intellectual heritage and support research in the humanities and social sciences.

Skill Development and Lifelong Learning: Books aid in developing critical reading, analytical thinking, and academic writing skills. They also support self-directed learning, allowing users to explore topics of personal or professional interest at their own pace.

Resource for Competitive Exams and Career Preparation: Libraries often stock guidebooks, previous years' question papers, and preparatory materials for national and international competitive exams, making them valuable for career-oriented students.

Interdisciplinary Exploration: Books enable cross-disciplinary engagement by exposing readers to diverse perspectives, theories, and methodologies—fostering a more holistic academic experience.

6.4 Books in the Digital Era: Complementarity, Not Obsolescence:

Books continue to play a foundational role in higher education, even in an era dominated by digital media.

While digital platforms offer accessibility and immediacy, printed books provide structured depth and cognitive engagement. Studies consistently affirm that physical reading materials enhance comprehension and retention. In this sense, books serve not merely as content vessels but as tools for deep learning, sustained focus, and conceptual clarity.

Moreover, books play a critical role in upholding academic rigor and scholarly continuity. They enable access to authoritative voices in every field and ensure equitable resource distribution across student populations—especially when curated and provided through institutional libraries.

Their importance extends far beyond mere information delivery—here's how:

Deep Learning and Cognitive Engagement: Books encourage sustained attention and critical thinking. Unlike fragmented online content, they offer structured, in-depth exploration of subjects, helping students build conceptual clarity and analytical skills. Studies have shown that reading printed material enhances retention and comprehension compared to digital formats.

Academic Rigor and Scholarly Development: In higher education, books—especially academic monographs and edited volumes—are essential for engaging with disciplinary debates, theoretical frameworks, and historical contexts. They support rigorous scholarship and are often central to literature reviews, thesis writing, and advanced coursework.

Independent Learning and Intellectual Autonomy: Books foster self-directed learning. Students can explore topics at their own pace, revisit complex ideas, and develop their own interpretations—skills that are crucial for lifelong learning and research.

Cultural and Disciplinary Continuity: Books preserve the intellectual heritage of disciplines. They connect learners to foundational texts, canonical works, and evolving schools of thought, ensuring continuity in academic traditions and scholarly discourse.

Equitable Access and Academic Integrity: University libraries provide access to curated book collections, ensuring that all students—regardless of background—can engage with high-quality academic resources. This supports equity and reduces reliance on unverified or superficial online content.

Complement to Digital Resources: While digital tools offer speed and convenience, books provide depth and permanence. A balanced academic environment values both, using books to anchor learning while digital platforms enhance accessibility and interactivity.

In essence, books remain indispensable to the mission of higher education: cultivating informed, reflective, and capable individuals. Books remain central to the mission of higher education: cultivating informed, thoughtful, and capable individuals. They are irreplaceable assets in preserving disciplinary knowledge, supporting scholarly inquiry, and enriching the intellectual life of academic communities.

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6.5 Use of Books in Jadavpur University:

Academic libraries function as pivotal centres of knowledge, supporting intellectual growth and scholarly inquiry. A thorough assessment of their collections and usage patterns reveals critical insights into their relevance, utility, and strategic alignment (Evans & Saponaro, 2012).

Here, 'use of books' refers to books that are borrowed, read, consulted for reference within the library, and also shared with other institutional libraries through interlibrary loan services by library professionals, for the benefit of the user community.

This report provides a comprehensive analysis of the book collection, circulation trends, and usage data of the Jadavpur University Library over nearly seven decades, spanning the years 1955 to 2024. Its primary objectives are to:

- Identify long-term usage trends
- Highlight underutilized segments of the collection
- Recommend policies to optimize collection development

Evaluating how library resources are used plays a vital role in understanding user behaviour, assessing the effectiveness of collection strategies, and guiding future development. A focal metric in this analysis is the annual usage percentage, which quantifies the proportion of the collection that is actively engaged by users. This figure serves as a key indicator of the collection's relevance, academic involvement, and institutional policy effectiveness.

Total Collection Growth (Books)

- 1955: 14,054 books
- 2024: 693,909 books
- Net Increase: 679,855 books
- Average Annual Growth: 679,855 ÷ 69 ≈ 9,853books/year

The expansion of the library's holdings followed a steady, linear trajectory, with no significant periods of decline. However, while acquisition efforts remained consistent, the corresponding user engagement—as measured by circulation volume—did not reflect a parallel increase. This disparity suggests a potential misalignment between collection growth and actual usage patterns.

2. Usage Volume Trends (No. of Books Used Annually)

- Peak Usage:
    - 1975–76: 330,986 books used
    - 1976–77: 310,336
    - 1973–74: 298,235
- Recent Usage:
    - 2020–21: 6,904
    - 2023–24: 30,814
    - Over 90% decline from the peak.
- Average Usage (1955–2024):
    - Total Usage ≈ 7,925,446 (approximate sum)
    - Mean Annual Usage: 7,925,446 ÷ 69≈114,860 books/year

3. Usage Percentage Trends (Use ÷ Total Books)

- Highest:
    - 1956–57: 212.62%
    - 1957–58: 158.21%
    - Indicates books were used more than once per year.
- Lowest:
    - 2020–21: 1.00%
    - 2023–24: 4.44%

- Average Usage % by Era:

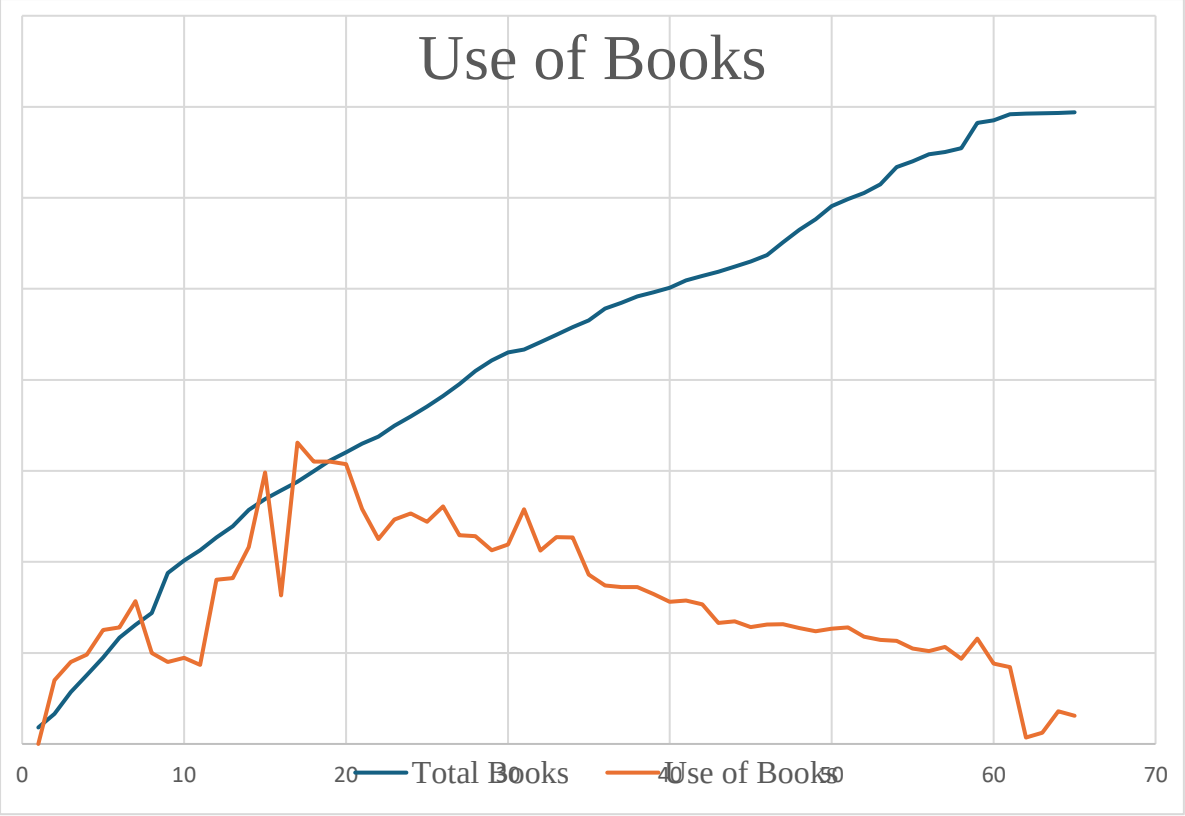
Era	Avg. Usage %
1955–1962	~122%
1963–1975	~72%
1976–2000	~55%
2001–2019	~21%
2020–2024	~4.5%

4. Decadal Summary (Usage % and Total Books)

Decade	Start Total	End Total	Avg. Usage %	Remarks
1955–1964	18,077	187,683	~125%	Rapid early usage
1965–1974	201,479	278,627	~73%	High demand period
1975–1984	288,103	382,259	~94%	Peak usage volume
1985–1994	395,431	478,321	~49%	Start of decline
1995–2004	484,517	537,026	~33%	Noticeable drop
2005–2014	551,231	647,924	~20%	Steady decrease
2015–2024	650,298	693,909	~9%	Digital shift, collapse in COVID era

5. Key Statistical Highlights

- Mean Usage%(Overall): ≈47.3%\approx. 47.3\%≈47.3%
- Median Usage%: ~36.4% (value around early 1990s)
- Standard Deviation of Usage%: Estimated at 35%, indicating high fluctuation
- Usage Collapse Factor: From 330,986 (1975) to 30,814 (2023): ≈ 90.6% decline



6. Visual (Suggested for Graphical Display)

A. Line Graph: Total Books vs. Books Used Over Time

- Two lines:
  - Total Books (Upward trend)
  - Use of Books (Peak and drop)
  - Shows a wide and growing gap post-1990

B. Decade-Wise Comparison Table

Decade	Avg. Annual Books Added	Avg. Usage %	Total Use (books)
1955s	~6,000	120%+	~800,000
1970s	~12,000	~84%	~1.5 million
1990s	~7,000	~40%	~1.1 million
2010s	~7,500	~18%	~1.0 million
2020s	~2,000	~6%	~112,000

Analysis of Book Stock and Usage Jadavpur University Library (1955–2024)

1. Early Period (1955–1965): Rapid Uptake with Limited Stock

In the earliest years, particularly from 1956–1961, book usage exceeded the total stock, indicating extremely high demand relative to supply. This suggests a foundational period where academic demand for library resources was high and growing rapidly. Early investments in stock were quickly utilized, emphasizing the library's critical role in academia during that era.

2. Mid-Century Growth (1965–1980): Expansion and Stabilization

Book stock steadily increased, and usage remained strong, with utilization percentages hovering between 70–110%. 1973–1974 saw usage exceeding stock (110.8%), possibly due to curricular reforms or rising student enrollment. This reflects a balanced growth of resources and usage, denoting continued reliance on library resources despite rising stock levels.

3. Plateau and Decline (1980–2000): Usage-Stocks Gap Begins

While total book stock continued to rise, usage as a percentage started to decline, dropping from ~70% in the early 1980s to ~30% by 2000. This could be due to alternative resources, lack of updated materials, or accessibility issues. It marks the beginning of a disconnect between collection development and user needs or preferences.

4. Digital Age Shift (2000–2020): Steady Decline in Use %

A significant drop in use percentage to below 25% is observed, even as book stock increased. This reflects the rise of digital libraries and a shift in student preferences toward digital resources. It highlights the need for digital transformation and relevance-based acquisitions.

5. Pandemic and Post-Pandemic Era (2020–2024): Critical Drop

Usage percentage dropped dramatically during COVID-19 (1.00% in 2020–2021), with only partial recovery afterward. This was due to physical access restrictions and continued preference for digital materials. It marks a structural shift in library usage behaviour that may persist.

6.6 Strategic Insights and Policy Recommendations:

The evolution of the Jadavpur University Library, from a modest repository in 1955 to a vast collection of nearly 694,000 volumes in 2024, reflects an impressive trajectory of physical expansion—an approximate 38-fold increase over seven decades. However, this growth was not mirrored by a corresponding rise in resource utilization. While the library thrived in its formative years (1955–1984), subsequent decades witnessed a persistent decline in physical engagement. The onset of the digital era post-2000, compounded by the disruptions caused by the COVID-19 pandemic, accelerated this downward trend, culminating in a dramatic drop in usage.

Quantitative metrics—such as declining usage percentages, wide standard deviation, and sharp reduction in circulation volumes—reveal profound shifts in user behaviour and expose systemic gaps between collection acquisition and actual utilization. These findings point to a clear need for strategic realignment in policy and practice.

6.7 Policy Recommendations:

1. Evidence-Based Collection Development: Future acquisitions must be anchored in curriculum mapping, historical circulation data, and documented user demand. Adoption of demand-driven acquisition (DDA) frameworks can empower libraries to respond effectively to evolving academic needs. Regular consultation with faculty and students should form the backbone of collection planning to ensure disciplinary and pedagogical alignment.

2. Digital Infrastructure Enhancement: Investments should focus on expanding access to e-books, academic databases, and remote discovery tools. Institutional repositories and subscription-based platforms must be strengthened to support digital scholarship and extend the reach of library services beyond physical boundaries.

3. Systematic Weeding and Evaluation: An evidence-based weeding strategy should be implemented to identify and remove outdated or underutilized materials. Annual evaluations, informed by usage analytics, will ensure that the retained collection remains relevant, efficient, and supportive of institutional goals.

4. User Engagement and Literacy Programs: To reinvigorate engagement, the library should initiate information literacy workshops, resource orientation sessions, and targeted promotional campaigns. These initiatives should be responsive to diverse user profiles and promote confident, informed use of library resources.

5. Transition to a Hybrid Service Model: The integration of physical and digital services into a hybrid framework is essential for sustaining academic relevance. A blended service model supports flexible learning modalities, caters to varied user preferences, and enhances overall accessibility.

The library's historical trajectory underscores a compelling paradox: despite consistent and substantial collection expansion, user engagement with physical resources has sharply declined. This divergence reflects deeper shifts in information behaviour and signals an urgent need for strategic reconfiguration.

Moving forward, the library must embrace a user-centred, data-driven, and digitally enriched approach to collection management. By prioritizing relevance, responsiveness, and accessibility, the library can reclaim its role as an indispensable academic catalyst and adapt effectively to the changing contours of higher education.

6.8 Resource Sharing:

Jadavpur University Library facilitates resource sharing through various services. Temporary library cards are provided to external users, enabling limited access to library resources. The Inter-Library Loan (ILL) facility is available to both internal and external users upon request and serves as an important indicator in the collection evaluation process. However, documentation and record-keeping of ILL transactions remain inconsistent.

The University was previously affiliated with three major digital library consortia—UGC-INFONET, NLIST, and INDEST-AICTE—which merged in December 2015 to form the e-Shodhsindhu Consortia, of which Jadavpur University is now a member. Additionally, the University Library is a part of DELNET (Developing Library Network), further enhancing its resource-sharing capabilities with other institutions.

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CHAPTER: -7

WEEDING

7.0 Weeding:

According to Harrod's Librarians' Glossary and Reference Book, weeding refers to "discarding from stock, books which are considered to be of no further use." This process—also known as deselection, collection renewal, collection re-evaluation, or de-acquisition—is an essential and ongoing component of effective collection management (Harrod.1987).

Weeding plays a critical role in maintaining a library's relevance, accessibility, and overall physical condition. By systematically removing outdated, unused, or superseded materials, libraries enhance the browsability of their collections and ensure sustained usefulness for their users. Moreover, regular weeding enables collections to adapt dynamically to evolving institutional priorities, including shifts in teaching objectives and research interests.

A Collection Development Policy serves as a comprehensive framework guiding library staff in the selection and deselection of resources—both print and electronic—for the institution's local collection. It provides structured direction across the entire lifecycle of library materials, encompassing selection, acquisition, cataloguing, shelving, weeding, retention, preservation (including digital archiving), relegation, and final disposal.

This policy ensures that collection management aligns with institutional priorities and subject coverage, referencing predefined levels of collection depth and breadth. By doing so, it promotes balanced development, systematic maintenance, and long-term relevance of the library's holdings in support of evolving academic and research needs.

Selection and deselection of books are integral components of a library's collection maintenance and management strategy. If one envisions the collection development process as a coin, book selection represents one side—the systematic inclusion of new materials into the library's holdings—while deselection, or weeding, represents the other—an equally systematic withdrawal of items based on established criteria and procedures.

Together, these dual processes ensure that the library's collection remains current, relevant, and aligned with the evolving academic, research, and institutional priorities it serves.

7.1 Weeding of Missing / Unreturned Books:

During the lockdown period, **53** graduating students obtained their marksheets and certificates without securing the requisite library clearance certificate. Furthermore, 36 additional cases were identified involving students who had either discontinued their studies, changed departments or academic streams, or gained readmission to other institutions—all departing without returning their borrowed books to the departmental library. These individuals were cleared by the respective departments or the University without fulfilling their outstanding library obligations.

Despite the issuance of official reminder letters, only a small subset (2 to 5 students) responded and returned the borrowed materials. The remaining students did not respond, and the borrowed items are now deemed permanently unreturned.

In view of this situation, it is proposed that these materials be formally written off from the accession register and all relevant library databases, in adherence to proper protocols. This action should be accompanied by appropriate documentation to ensure audit transparency and institutional accountability.

7.2 Weeding of Mutilated and Beetled Books: Report on Mutilated Books Identified During Library Renovation:

Instances of misuse, mishandling, negligence, and disruptive behaviours have, over time, resulted in significant damage to library holdings—a matter of serious concern for the integrity and sustainability of the collection. During a recent rearrangement and renovation of the departmental library, numerous mutilated and scattered book fragments were discovered across various corners of the premises.

Initial efforts were undertaken to reorganize and assess these fragments. However, many were found to be severely beetle-infested, structurally fragile, and beyond restoration. Following meticulous review and manual verification, a total of 163 accession numbers corresponding to these irretrievable items were recovered and documented.

This list was subsequently presented to the Library Committee. After due deliberation, the Committee resolved that these damaged resources be formally weeded out from the library's active collection and permanently removed from the accession register and digital cataloguing databases, in accordance with established weeding and audit protocols.

7.3 Weeding / Deselection Procedure at the Departmental Library of Mechanical Engineering, Jadavpur University:

As per the EC resolution (dt. 20/07/22 and 28/12/2022) the following systematic steps were undertaken to carry out the weeding process in alignment with the

principles of effective collection management and Ranganathan's Laws of Library Science. The Continuous Review, Evaluation, and Weeding (CREW) methodology guided the overall approach.

1. Examination and Selection of Items

Weeding is practiced as a continuous and critical component of collection maintenance, ensuring relevance, accessibility, and vitality of library holdings. The process upholds the spirit of Ranganathan's laws by enabling dynamic and user-responsive library services.

2. Preparation of Weeding Lists

Three distinct lists were compiled based on CREW guidelines:

- (i) Less used / unused items
- (ii) Unreturned books (including those lost due to withdrawal, dropout, or transfer)
- (iii) Mutilated and irreparably damaged books

3. Library Committee Meeting

The prepared weeding lists were placed as an agenda item at the Library Committee meeting of the Mechanical Engineering Department for scrutiny and deliberation.

4. Circulation of De-selection Lists

The compiled deselection lists were circulated among relevant stakeholders to maintain transparency and gather input, if any, prior to final approval.

5. Approval by the Library Committee

Given the direct relevance of Lists (ii) and (iii) to the departmental library's holdings and responsibilities, the Library Committee formally approved their removal from the collection.

6. Stamping for Deselection

Post-approval, selected books were stamped with the "Library Disposal" mark to officially denote their withdrawal from the active collection.

7. Removal from Accession Register

The approved weeding list was submitted to the Central Processing Unit of the University. All deselected entries were documented and marked as disposed in the accession register.

8. Removal from Library Database

Following the updates made to the accession records, the corresponding deselected titles were subsequently tagged as "disposed" in the central bibliographic database, thereby completing the institutional documentation cycle and ensuring alignment across all record-keeping systems.

9. Final Disposal

Disposed materials were handled as per institutional policy:

- May be donated to nonprofit organizations or other libraries.
- May be destroyed if unfit for redistribution.
- Not eligible for sale, commercial use, or personal retention by any individual involved in the weeding process.

Barriers to Effective Weeding:

Despite its vital role in maintaining a relevant and user-centric collection, the weeding process often encounters numerous obstacles. Based on practical experiences, the following challenges were identified by the librarian during weeding activities in the departmental library:

1. Time Constraints:

Routine duties and academic demands often leave little room for the sustained attention required for thorough weeding activities.

2. Insufficiency of Skilled Personnel:

A shortage of adequately trained and experienced staff hinders systematic evaluation and decision-making required for deselection.

3. Professional Weariness and Reluctance:

Monotony, professional fatigue, or apprehension about making irreversible decisions can reduce staff motivation and initiative.

4. Ethical or Professional Dilemma:

Librarians may experience internal conflict when deselecting materials that were once valuable or may still hold perceived potential.

5. Resistance from Users:

Frequent opposition from faculty members, researchers, or students—who may object to the removal of specific resources—can delay or derail weeding plans.

6. Circulation of Rumours:

Misinformation or rumours surrounding weeding efforts can foster mistrust and anxiety among stakeholders.

7. Sentimental Attachment and Nostalgia:

Long-serving staff or alumni may exhibit emotional ties to older items, viewing them as historical artefacts rather than obsolete resources.

8. Inadequate Financial Support:

Limited funds can restrict the procurement of replacements, creating hesitancy toward removing older or damaged books.

9. "Something is Better Than Nothing" Mindset:

The fear of resource scarcity may lead to a preference for retaining outdated materials over having perceived empty shelves.

10. Spatial Constraints:

Paradoxically, even packed shelves can discourage weeding if space is required to process and temporarily store deselected items.

11. Preservationist Mentality:

A deep-seated belief in the sanctity of books and the possibility of future utility often discourages deselection, especially in academic or archival contexts.

12. Financial Mismanagement:

Apart from lack of funding, the **misuse or inefficient allocation of funds** designated for collection maintenance further complicates weeding efforts.

Weeding is a continuous and essential practice for sustaining a vibrant, accessible, and responsive library collection. The present study documents the structured and systematic weeding methodology implemented at the Department of Mechanical Engineering, Jadavpur University.

What initially appeared to be a sensitive and challenging task was made achievable and constructive through a collective spirit defined by clarity of purpose, professional ambition, institutional support, and collaborative confidence. The success of this initiative was not without obstacles—ranging from procedural hesitations to cultural and emotional resistance. However, the process gained momentum and legitimacy upon the adoption of the ‘Weeding Out Policy’ by the Executive Council of Jadavpur University, as issued and officially endorsed by the Chief Librarian.

This institutional mandate served as a pivotal enabler, providing both procedural clarity and administrative backing. It demonstrated that effective weeding is not

merely a technical process, but a shared institutional commitment grounded in continuous review, critical evaluation, and responsible decision-making.

Ultimately, the experience reaffirmed that the attitude of the librarian, combined with cooperation and collaboration across all levels of the academic community, constitutes the cornerstone of a user-friendly and dynamically maintained library system.

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CHAPTER: - 8

FUNDING AND BUDGET

8.0 Budget:

A well-structured budget ensures adequate financial support to achieve the desired goals of collection development. As Carrigan aptly observes, "The essence of collection development is choice"—a process inherently shaped and constrained by the boundaries of available funding.

As Reed-Scott astutely notes, the budgetary system of a library is a powerful reflection of its collection development priorities. An effective library budget is characterized by a logical and well-planned structure, continuous monitoring of resource usage, and a deliberate alignment with strategic goals. It serves not merely as an accounting tool but as a dynamic instrument for informed decision-making. Crucially, the process demands the active engagement of selection personnel to ensure that resource allocation reflects institutional and user needs. Ultimately, the fundamental principle of library budgeting lies in harmonizing available funds with identified requirements.

The budget serves as a strategic planning instrument that underpins the attainment of institutional objectives. Its formulation and structure are shaped by the nature of the library—whether academic, special, or public—and the specific needs of its user community. As articulated by Jenkins and Morley (1996), six critical factors should guide the development of budgetary procedures:

- Size of the community served
- Relevance and scope of departmental libraries across disciplines

- Volume and trends in publishing output
- Cost of information resources
- Breadth and interdisciplinarity of subject coverage
- Significance of subjects in relation to the institution's academic mission

These determinants ensure that the budget not only reflects institutional priorities but also adapts to the evolving demands of scholarly communication and user expectations.

In addition to the aforementioned factors, the emergence and integration of Information and Communication Technology (ICT) have significantly influenced budgeting practices in higher education institutions, particularly with regard to library collections. The expansion of digital resources necessitates a reconfiguration of budget allocations to effectively balance traditional print media with electronic formats. Strategic budget planning thus plays a pivotal role in ensuring that financial resources are judiciously distributed, allowing universities to optimize their collections and maximize the utility of available funds across diverse media platforms.

8.1 Financial Planning and Fund Governance in Jadavpur University Library System:

The Jadavpur University Library System adheres to a structured budgeting framework that reflects both academic priorities and administrative prudence. Like other Indian university libraries, it primarily follows a conventional budgeting model. However, it distinguishes itself through centralized budget distribution, ensuring a balance between quality, academic priority, and institutional goals.

8.1.1 Principles of Fund Allocation:

Budget planning is guided by several academic and logistical factors, including:

- Introduction and scope of academic programmes
- Number and size of departments
- Subject-wise resource pricing
- Efficiency in fund utilization during the previous fiscal year

Fund allocations are distinctly categorized for the Central Library, departmental libraries, and those attached to schools and research centres. This balanced distribution is overseen by the Finance Department and endorsed by the Executive Council (E.C.) of the University. The Chief Librarian plays a pivotal role in monitoring user needs and, as Secretary of the University Library Sub-Committee, convenes consultative meetings with departmental heads to determine specific requirements for books and journals. Simultaneously, the Chief Librarian presents the requisition for Central Library resources.

While a 5% to 10% annual increase in allocation is commonly anticipated, it is not guaranteed and depends on performance in the previous year and emerging priorities. Funds for printed books and those for journals and e-resources are allocated separately to preserve clarity and address the evolving media landscape.

8.1.2 Allocation Procedures and Governance:

When a funding agency specifies allocation guidelines, these are followed precisely. For internally allocated funds, the budget is prepared through a collaborative process between library stakeholders and the Finance Department. After being finalized, the budget is presented to the E.C. for approval. Upon approval, formal letters from the Finance Officer’s office communicate the allocated amounts to each department.

Adjustments are made where necessary to accommodate subject-specific demands. Departments that demonstrate higher resource needs may receive

proportionately greater allocations, reflecting the dynamic and responsive nature of fund governance.

8.1.3 Unspent Funds and Reallocation:

If any portion of the allocated budget remains unspent, it does not result in an increased allocation under that head in the following year. Instead, where feasible, unutilized funds may be considered for reallocation. Inputs from departments are taken into account during this process. Ultimately, decisions regarding reallocation and re-appropriation rest with the Finance Department and are subject to ratification by the Executive Council.

8.2 Funding Sources and Financial Governance: Jadavpur University Library System:

1. Overview of Budget Philosophy and Structure:

The Jadavpur University Library System operates under a centrally coordinated and traditionally informed budget structure. This approach ensures consistency in resource quality and institutional priorities while addressing the diverse needs of Central, departmental, and affiliated libraries. Strategic budgeting is used not merely as an accounting mechanism, but as a dynamic planning tool that aligns collection development with evolving academic objectives.

2. Criteria for Budget Allocation:

Fund distribution is informed by key academic and administrative factors:

- Expansion and diversification of academic programmes
- Number and scope of departments
- Resource pricing across disciplines
- Departmental performance in fund utilization (previous fiscal year)
- Specific requirements of Central and departmental libraries

Separate allocations are made for books, journals, and electronic resources, allowing precise monitoring and tailored development.

3. Budget Process and Governance:

- **Initiation:** Departments submit resource requirements through consultations convened by the Chief Librarian, who also recommends allocations for the Central Library.
- **Approval:** The Finance Department prepares the budget based on inputs and past utilization, which is then ratified by the Executive Council (E.C.).
- **Communication:** Once approved, allocation letters are issued by the Finance Officer's office to individual departments.
- **Flexibility:** Adjustments are permitted to accommodate discipline-specific needs, ensuring equitable and effective fund deployment.

4. Treatment of Unspent Funds:

Unutilized funds do not qualify for an increased allocation in the following year under the same budget head. Where feasible, reallocation is considered, guided by departmental suggestions. Final decisions rest with the Finance Department and require E.C. endorsement.

5. Sources of Funding:

A. University Budget

The University's internal budget primarily supports subscriptions to journals, e-books, and electronic resources.

B. Central and State Government Grants

i. UGC Grants (University Grants Commission)

- *General Development Assistance (GDA)* under Five-Year Plans
- *Special Assistance Programme (SAP)* at three levels:

    - Centre of Advanced Study (CAS)
    - Department of Special Assistance (DSA)
    - Departmental Research Support (DRS)
- *ASIST* (Science & Technology Infrastructure)
- *ASIHSS* (Humanities & Social Sciences Infrastructure)
- *University with Potential for Excellence (UPE)*
- Major and Minor Research Projects
- Support programmes for SC/ST/OBC/Minority groups
- Grants for PG Diploma in Yoga Therapy

ii. Other Central Agencies

- National Board for Higher Mathematics (NBHM)
- Department of Science and Technology – FIST Programme
- All India Council for Technical Education (AICTE)
- Indian Council of Social Science Research (ICSSR)
- Technical Education Quality Improvement Programme (TEQIP)

C. West Bengal Government Grant

This is usually received as a single-instalment allocation, with expenditure managed individually by the Central and Departmental Libraries.

6. Project Grants and Endowments:

A. Project-Based Contributions

Departments receiving external grants from prestigious institutions often allocate a portion to library acquisitions. Examples include:

- American Institute of Chemical Engineers (AIChE)
- UN Conference on Trade and Development (UNCTAD)
- Condensed Matter Physics Research Centre (CMPRC) – Physics
- Ratan Tata Trust – Film Studies
- Food Irradiation Project – Food Technology & Bio-Chemical Engineering

B. Endowment Funds

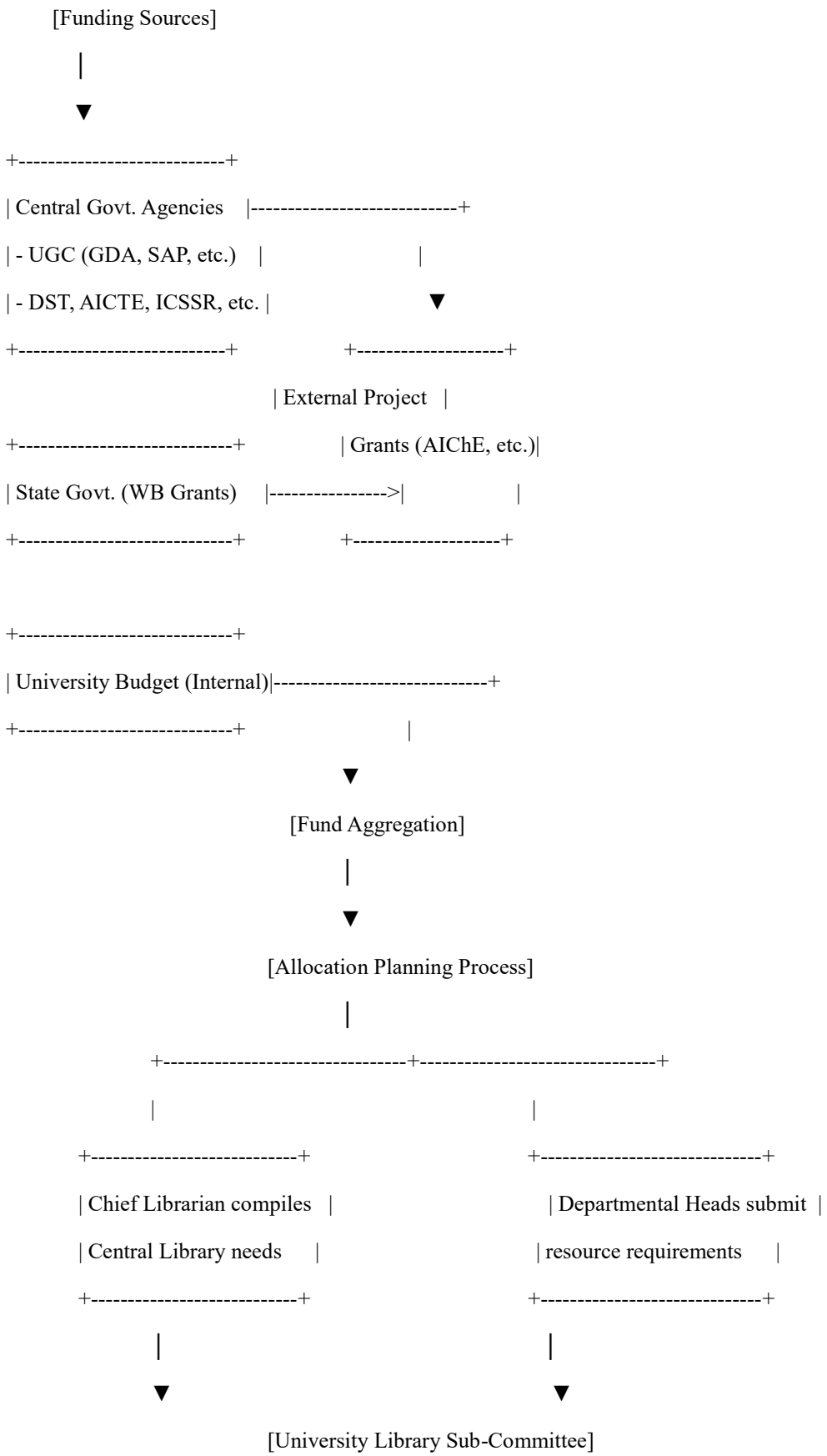
Several memorial and institutional endowments periodically contribute to book purchases:

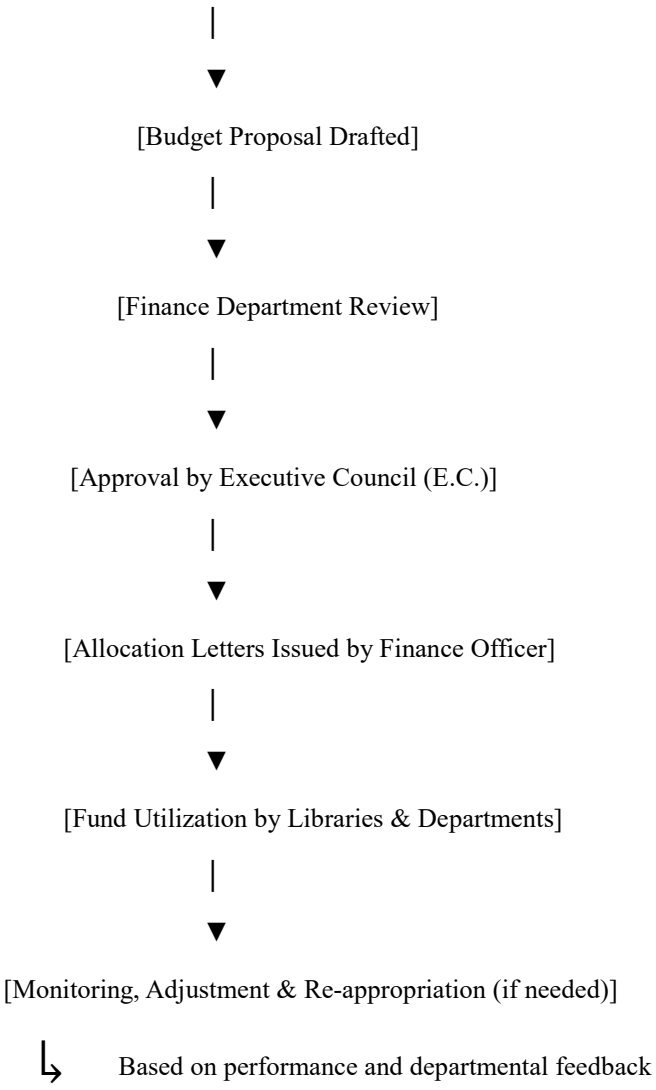
- Ujjayini Memorial Award – Economics
- Arun Biswas and Ashok Ghosh Memorial Fund – English

Library Fund Sources and Utilization Matrix

Funding Source	Resource Type Supported	Beneficiary Units
University Budget	Journals, e-books, e-resources	Central Library, Departmental Libraries
UGC Grants (GDA, SAP, DSA, CAS, DRS, UPE, etc.)	Books, journals, infrastructure support	Subject-specific Departments, Central Library
ASIST / ASIHSS (UGC)	Infrastructure enhancement, print & digital media	Science, Technology, Humanities Departments
RUSA (Rashtriya Uchchatar Shiksha Abhiyan)	Infrastructure modernization, digital resources, capacity building	Central Library, Departmental Libraries
SC/ST/OBC/Minority Coaching Schemes	Books, study materials	Inclusive Education Units
DST – FIST / AICTE / ICSSR / TEQIP	Books, journals, project-linked resources	Engineering, Social Sciences, Technical Streams
West Bengal Government Grant	Books and materials (general allocation)	Central Library and Departmental Libraries
External Project Grants (AIChE, UNCTAD, etc.)	Specialized and research-focused materials	Specific Departments (e.g., Physics, Film Studies)
Endowment Funds (e.g., Ujjayini, Biswas-Ghosh Funds)	Department-specific book acquisition	Departments of Economics, English, etc.

8.3 Library Fund Governance Workflow: Jadavpur University:




[Budget Proposal Drafted]
[Finance Department Review]
[Approval by Executive Council (E.C.)]
[Allocation Letters Issued by Finance Officer]
[Fund Utilization by Libraries & Departments]
[Monitoring, Adjustment & Re-appropriation (if needed)]
Based on performance and departmental feedback

8.4 Budget Analysis Table:

Annual Book Budget Allocation and Utilization with Year-on-Year Growth

Year	Budget (₹)	YoY Budget Growth (%)	Utilization (₹)	YoY Utilization Growth (%)	Unspent Balance (₹)	Utilization %
2017–18	10,904,780	–	8,207,378.50	–	2,697,401.50	75.27%
2018–19	5,988,705	-45.04%	4,685,573	-42.93%	1,303,132	78.24%
2019–20	7,334,527	+22.45%	6,376,293.50	+36.06%	958,233.50	86.93%
2020–21	1,793,215	-75.55%	1,170,337	-81.64%	622,878	65.27%
2021–22	100,000	-94.42%	61,253	-94.76%	38,747	61.25%
2022–23	480,000	+380.00%	402,135	+556.56%	77,865	83.78%

Note: Growth rates are calculated using the formula: ((Current Year – Previous Year) ÷ Previous Year) × 100.

The annual budget allocation and utilization data for Jadavpur University Library from 2017–18 to 2022–23 reflect both fiscal fluctuations and the institution's adaptive management capacity. Beginning with a high allocation of ₹10.9 million in 2017–18, the library system maintained a solid utilization rate of 75.27%. However, the subsequent year saw a budget contraction of 45.04%**,** accompanied by a similar reduction in utilization (–42.93%). Despite this decline, the utilization efficiency marginally improved to 78.24%, reflecting strategic resource management under reduced funding conditions. In 2019–20, the university responded with a 22.45% increase in funding**,** and more notably, an improved utilization growth of 36.06%**,** suggesting enhanced procurement activity and absorption capacity. The peak utilization rate of 86.93% during this year represents the library's most efficient fiscal performance in the given period.

The onset of the COVID-19 pandemic is reflected in the substantial drop in both budget (–75.55%) and utilization (–81.64%) in 2020–21. While funding fell sharply to ₹1.79 million, the utilization percentage also dropped to 65.27%, indicative of institutional disruptions in library access and spending capabilities. These challenges were further compounded in 2021–22, when the allocated budget reached its lowest at just ₹100,000. Utilization fell accordingly, though the efficiency rate remained at a respectable 61.25%**,** signaling minimal wastage and prioritization of core acquisitions.

Encouragingly, 2022–23 marked a clear recovery phase. The budget surged by 380%**,** and utilization witnessed a parallel increase of over 550%**,** closing the year at ₹402,135 with an 83.78% utilization rate. This recovery highlights the library system's resilience and its ability to rapidly scale up operations when resources were replenished.

Overall, this six-year trend demonstrates a trajectory of fiscal discipline, strategic adaptability, and responsive planning amid both economic constraints and institutional resurgence. The budgetary data underscores the importance of flexible funding mechanisms and ongoing evaluation to maintain continuity in academic resource provision.

8.4.1 Faculty of Arts - Book Budget Analysis (2017–2023):

Year	Budget (₹)	Expenditure (₹)	Annual Budget Growth (%)	Utilization (%)
2017–18	4,121,925.50	3,554,284.50	—	86.25%
2018–19	2,674,731.00	2,330,116.00	−35.11%	87.09%
2019–20	3,541,524.00	2,850,912.00	+32.40%	80.50%
2020–21	1,050,000.00	1,068,361.00	−70.35%	101.78%
2021–22	0.00	0.00	−100.00%	—
2022–23	200,000.00	168,456.00	—	84.23%

Note. AGR = ((Current Year − Previous Year) ÷ Previous Year) × 100

The Faculty of Arts demonstrated notable volatility in its book budget trajectory across the six-year period. The initial allocation in 2017–18 (₹4.12 million) saw a strong utilization rate of 86.25%, which improved marginally in 2018–19 (87.09%) despite a 35.11% budget reduction. This suggests efficient resource management even under constrained funding.

The year 2019–20 witnessed a 32.40% increase in budget, accompanied by a solid 80.50% utilization rate, indicating the faculty's continued emphasis on book acquisition. However, in 2020–21, the budget was reduced drastically by 70.35%, yet utilization exceeded 100%, suggesting either supplementary funding support, delayed payments from the prior year, or proactive fund management that slightly overran the sanctioned amount.

No funds were allocated or spent in 2021–22, possibly due to institutional austerity during the post-pandemic recovery period. In 2022–23, a modest allocation of ₹200,000 was reinstated, with a healthy **84.23% utilization**, reflecting a phased return to normalcy and demand-driven planning.

Overall, the Faculty of Arts has demonstrated commendable financial prudence, with consistent utilization rates above 80%, even amid dramatic fluctuations in allocation. The findings reflect an adaptive fiscal posture and responsible stewardship of limited resources. These insights can inform future planning by highlighting the importance of stable, needs-based funding and dynamic resource prioritization in the humanities.

8.4.2 Faculty of Engineering and Technology Book Budget Analysis (2017–2023):

Budget Allocation, Expenditure, AGR, and Utilization

Year	Budget (₹)	Expenditure (₹)	AGR (%)	Utilization (%)
2017–18	1,070,000	655,105	—	61.22%
2018–19	270,000	200,908	−74.77%	74.41%
2019–20	2,076,185	1,951,601	+669.70%	93.99%
2020–21	123,215	58,529	−94.07%	47.53%
2021–22	100,000	61,253	−18.77%	61.25%
2022–23	260,000	230,655	+160.00%	88.71%

Note. AGR = ((Current Year – Previous Year) ÷ Previous Year) × 100

The Faculty of Engineering and Technology's budget trajectory over six years reveals pronounced volatility in both allocation and expenditure. In 2017–18, the faculty received ₹1.07 million and utilized 61.22% of the fund. However, 2018–19 saw a sharp 74.77% decrease in allocation, with only ₹270,000 sanctioned. Despite this, the faculty improved its utilization efficiency to 74.41%, demonstrating adaptive fiscal behaviour under constraint.

A dramatic rebound occurred in 2019–20, with the budget surging by 669.70% to ₹2.07 million—the highest in the observed period. This increase correlated with an exceptional 93.99% utilization rate, indicating near-complete fund absorption and likely alignment with curricular or research expansion.

The subsequent two years—2020–21 and 2021–22—reflected post-pandemic austerity, with allocations reduced to ₹123,215 and ₹100,000 respectively. Utilization dipped in 2020–21 to 47.53%, potentially due to access restrictions or supply delays, but recovered to 61.25% in 2021–22 despite the low allocation.

In 2022–23, a substantial 160% increase in allocation brought funding to ₹260,000, with an impressive 88.71% utilization, reaffirming the faculty's capacity to scale spending effectively when resources are restored.

The Faculty of Engineering and Technology demonstrates consistent fiscal responsiveness and generally high fund utilization across years of both abundance and scarcity. The data suggest that while external fluctuations influenced allocations, internal planning and spending mechanisms remained resilient. Strategic foresight in managing large allocations (as in 2019–20 and 2022–23) and efficient absorption during constrained periods position the faculty as a strong candidate for stable and performance-based financial planning in future cycles.

8.4.3 Faculty of Science Book Budget Analysis (2017–2023):

Book Budget Allocation, Expenditure, AGR, and Utilization Rate

Year	Budget (₹)	Expenditure (₹)	Annual Budget Growth (%)	Utilization (%)
2017–18	1,700,000	1,297,939	—	76.35%
2018–19	1,743,551	1,622,073	+2.58%	93.03%
2019–20	888,776	874,435	−49.04%	98.39%
2020–21	0	0	−100.00%	—
2021–22	0	0	—	—
2022–23	0	0	—	—

Note. AGR calculated as ((Current Year – Previous Year) ÷ Previous Year) × 100.

In 2017–18, the Faculty of Science operated with a book budget of ₹1.7 million, achieving a utilization rate of 76.35%. The following year (2018–19) witnessed a modest 2.58% increase in budget, alongside a sharp improvement in utilization to 93.03%, suggesting improved alignment between procurement planning and fund availability.

However, in 2019–20, the budget allocation was reduced by approximately **49.04%**, more than halving the sanctioned amount compared to the previous year. Despite this contraction, the faculty managed to utilize **98.39%** of the available funds—an indication of optimized prioritization and strong demand-based expenditure mechanisms.

From 2020–21 to 2022–23, the record shows a complete suspension of book budget allocations, with zero expenditures. This likely reflects institutional reallocation of funds during and after the COVID-19 pandemic, impacting the acquisition capacity of the Faculty of Science. While such a pause might have been unavoidable under extenuating circumstances, the absence of funding for three consecutive years poses potential challenges to academic continuity and resource updating.

The Faculty of Science at Jadavpur University demonstrated high utilization effectiveness in the years preceding 2020, even under conditions of budgetary contraction. The complete absence of allocation from 2020–21 onwards marks a significant deviation from prior trends. Restoring a stable and incremental funding model will be essential to sustain the faculty's collection development and research support functions going forward.

8.4.4 Faculty of ISLM – Book Budget Analysis (2017–2023)

Year	Budget (₹)	Expenditure (₹)	AGR (%)	Utilization (%)
2017–18	2,012,855	955,594	—	47.48%
2018–19	1,044,879	477,067	−48.08%	45.66%
2019–20	627,907	600,858	−39.91%	95.69%
2020–21	620,000	43,447	−1.26%	7.01%
2021–22	0	0	−100.00%	—
2022–23	20,000	3,024	—	15.12%

Note. AGR = ((Current Year – Previous Year) ÷ Previous Year) × 100

The ISLM department received its peak book budget allocation in 2017–18 with ₹2.01 million, of which only 47.48% was expended. The following year, 2018–19, marked a significant 48.08% reduction in allocation, coupled with a marginal decline in utilization efficiency (45.66%).

In 2019–20, although the allocation dropped further by 39.91%, the department improved its utilization to 95.69%, suggesting enhanced procurement focus or delayed fund absorption from prior years.

In 2020–21, the budget plateaued at ₹620,000 but utilization collapsed to 7.01%, possibly due to pandemic-related operational disruptions or disbursement delays. The subsequent year (2021–22) recorded no allocation, while 2022–23 marked only a symbolic reinstatement of ₹20,000, of which ₹3,024 (15.12%) was utilized.

Over the six-year period, ISLM's book budget underwent sharp contractions, both in allocation and actual spending. Despite a year of high utilization in 2019–20, consistent underfunding and diminished expenditure in subsequent years reflect systemic resource limitations. Sustained financial constraints may compromise the department's ability to maintain current collections and meet the evolving information needs of students and researchers. A strategic reassessment of allocation policy—especially for LIS programs tasked with stewarding information access—may be warranted to restore academic balance and institutional parity.

8.4.5 Central Library (Library General) Book Budget Analysis (2017–2023):

Year	Budget (₹)	Expenditure (₹)	AGR (%)	Utilization (%)
2017–18	2,000,000	1,744,456	—	87.22%
2018–19	255,544	55,409	−87.22%	21.69%
2019–20	200,135	98,487.50	−21.69%	49.21%
2020–21	0	0	−100.00%	—
2021–22	0	0	—	—
2022–23	0	0	—	—

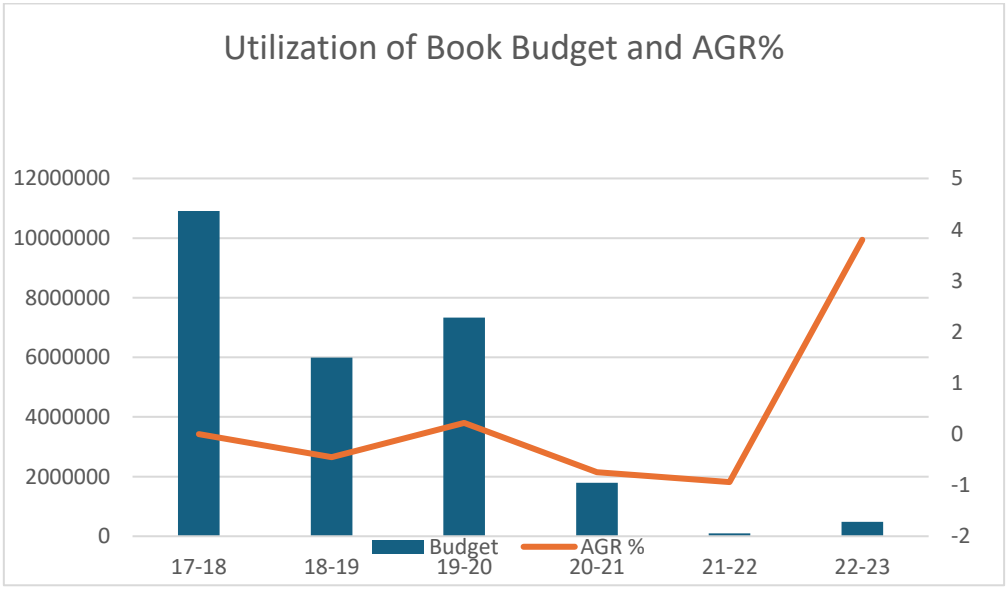
Note. AGR calculated as: ((Current Year − Previous Year) ÷ Previous Year) × 100

In 2017–18, the Central Library received its peak allocation of ₹2 million, from which 87.22% was effectively utilized. This high absorption rate suggests that

procurement systems and demand alignment were well-coordinated during that period. However, in 2018–19 the budget dropped precipitously by 87.22%, to ₹255,544, accompanied by a sharp fall in expenditure and utilization, which declined to 21.69%. This may point to delayed procurement cycles or administrative bottlenecks during the fiscal transition.

By 2019–20, although the allocation decreased further by 21.69%, utilization improved to 49.21%, suggesting partial normalization in expenditure operations despite constrained funding. However, from 2020–21 onward, the Central Library received no budgetary allocation for three consecutive years. This freeze in funding, possibly compounded by pandemic-era disruptions, effectively stalled central print acquisitions.

The financial trajectory of Jadavpur University's Central Library indicates an early phase of robust utilization followed by rapid contraction and eventual fiscal dormancy. While the library demonstrated effective fund absorption when resourced, prolonged budget stagnation threatens the continuity of collection development and academic service delivery. Strategic restoration of core funding, aligned with phased procurement planning, will be vital to reactivating the library's central role in scholarly infrastructure.



Faculty-Wise Analysis of Book Purchase Statistics at Jadavpur University (2017–2023)

Faculty	Books Purchased	Budget (INR)	Expenditure (INR)
Arts	7,965	11,588,181	9,972,130
Engineering	3,363	3,899,400	3,158,051
Science	2,951	4,332,327	3,794,447
ISLM	1,173	4,325,641	2,079,990
Library General	2,378	2,455,679	1,898,353
Total	17,830	26,601,228	20,902,970

This study extends the earlier analysis of Jadavpur University's (JU) book purchase statistics by examining the faculty-wise distribution of funds and acquisitions. The aim is to evaluate how budgetary allocations and expenditures translated into actual resource acquisition across key academic domains: Arts, Engineering, Science, ISLM (Information Science, Library & Media), and General Library. The analysis spans six academic years (2017–18 to 2022–23) and aligns with the broader goal of developing a sustainable collection development policy.

Findings

1. Dominance of Arts Faculty in Acquisitions: The Arts faculty accounted for 44.7% of total book acquisitions (7,965 out of 17,830 books). It also had the highest budget allocation (₹11.58 million) and utilization (₹9.97 million). This reflects a consistent prioritization of arts-related resources.
2. Engineering's Sharp Rise in 2019–20: Engineering experienced a dramatic spike in book purchases in 2019–20, accounting for 2,791 books—more than 83% of its total six-year acquisition. This suggests either a focused collection development initiative or delayed procurement from earlier years.

3. Science and ISLM Show Balanced Utilization: The Science and ISLM faculties received comparable funding (₹4.3 million each) and demonstrated substantial utilization. However, ISLM's lower expenditure relative to budget (only 48% utilized) indicates either procurement delays or underuse of funds.
4. General Library Support Declining Post-2019: The Library General category showed declining acquisitions post-2019, with no books purchased after 2019–20. This reflects a sharp decline in support for central resources, likely due to budget cuts observed in 2020–21 (₹1.79 million) and 2021–22 (₹100,000).
5. Budget vs. Book Quantity Efficiency: The cost-efficiency (expenditure per book) varies significantly:
    - Arts: ₹1,251/book
    - Engineering: ₹939/book
    - Science: ₹1,286/book
    - ISLM: ₹1,772/book
    - Library: ₹798/book

Engineering achieved high cost-efficiency in acquisition, while ISLM showed the highest per-book expenditure.

The data highlights the disproportionate focus on the Arts faculty, both in budget and book quantity, which may warrant review in light of balanced academic needs. While Engineering showed targeted investment in 2019–20, other faculties like ISLM and the Library were underfunded or underutilized their budgets in recent years. The declining acquisitions post-2019 coincide with overall institutional budget contraction, particularly evident in 2020–21 and 2021–22.

8.5 Budget Allocation and Utilization of Perpetual E-Books at Jadavpur University (2017–2023)

Year	Budget (₹)	Expenditure (₹)	Balance (₹)	AGR (%)	Utilization (%)
2017–18	19,000,000	17,009,940	1,990,060	—	89.53%
2018–19	15,000,000	17,955,683	−2,955,683	−21.05%	119.70%
2019–20	10,000,000	7,733,920	2,266,080	−33.33%	77.34%
2020–21	15,000,000	12,376,705	2,623,295	+50.00%	82.51%
2021–22	13,750,000	13,430,240	319,760	−8.33%	97.67%
2022–23	11,900,000	10,437,170	1,462,829	−13.45%	87.69%

Note. Utilization (%) = (Expenditure ÷ Budget) × 100

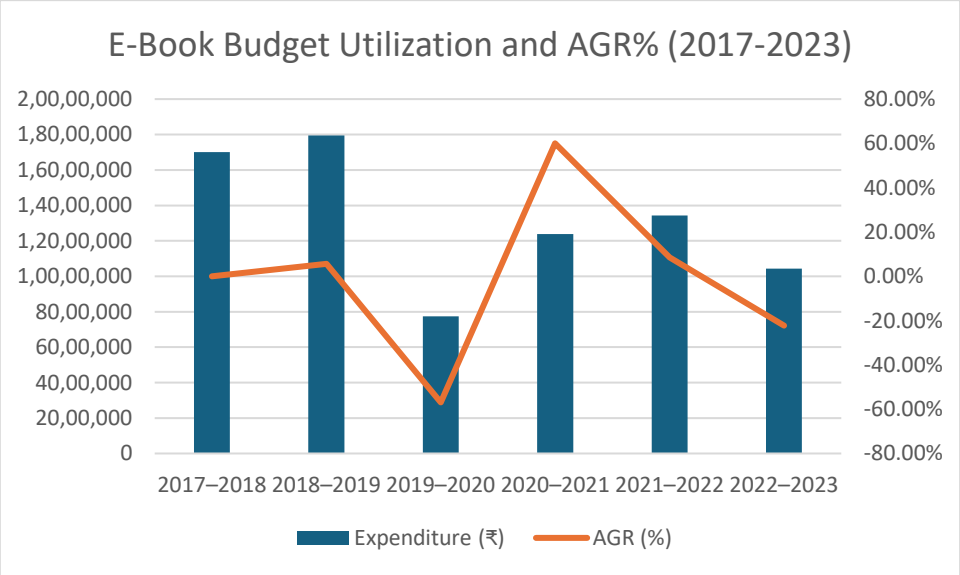
In 2017–18, Jadavpur University allocated ₹19 million for perpetual e-book procurement and achieved a utilization rate of 89.53%, reflecting prudent expenditure and procurement alignment. However, in 2018–19, while the budget decreased by 21.05%, actual expenditure exceeded the allocation by ₹2.95 million, resulting in a 119.70% utilization rate. This overspending may suggest delayed invoice clearance, multi-year licensing obligations, or aggressive acquisition strategies surpassing fiscal constraints.

The 2019–20 fiscal year marked a 33.33% drop in allocation, leading to a lower utilization rate of 77.34% and an unspent balance of ₹2.27 million. This decline may indicate strategic financial correction following the previous year's overextension or operational delays in procurement execution.

In 2020–21, the budget rebounded by 50%, yet utilization remained moderate at 82.51%, leaving over ₹2.6 million unused. Possible explanations include pandemic-related disruptions, scheduling lags in procurement, or institutional reprioritization. The year 2021–22 showed the most balanced performance, with 97.67% utilization, signalling improved financial discipline and demand alignment.

Finally, in 2022–23, both budget and utilization declined. The budget decreased by 13.45%, while the utilization rate dipped slightly to 87.69%, resulting in an unspent balance of ₹1.46 million. This retrenchment may reflect recalibrated academic requirements or a backlog of previously acquired content.

Across six years, Jadavpur University's investment in perpetual e-books displayed alternating phases of overspending, underutilization, and recovery. Although the institution achieved high utilization in some years (notably 2018–19 and 2021–22), inconsistent fiscal patterns call for the adoption of agile digital collection strategies. Synchronizing procurement planning with academic needs and streamlining vendor engagement could enhance stability, cost-efficiency, and long-term accessibility of e-resources.



Between 2017–18 and 2022–23, Jadavpur University's e-book budget utilization displayed an overall efficiency rate of approximately 92.41%, with notable fluctuations in both annual allocation and expenditure. The peak utilization occurred in 2018–19 at 119.70%, indicating overspending beyond the allocated ₹1.5 crore, while the lowest was in 2019–20 at 77.34%, reflecting underutilization. The annual growth rate (AGR) of expenditure fluctuated sharply, registering a high of +60.03% in 2020–21—likely due to increased digital content needs during the pandemic—and a low of −56.93% in 2019–20.

Notably, 2022–23 saw a spending contraction of −22.29% despite a strong utilization rate of 87.71%. Although the overall budget declined from ₹1.9 crore in 2017–18 to ₹1.19 crore by 2022–23, expenditure trends did not always mirror budget availability, suggesting the influence of external factors such as vendor dynamics, usage shifts, or procurement delays. Years like 2018–19 and 2021–22 demonstrated sound cost-benefit alignment, whereas 2019–20 evidenced a disconnect between allocation and effective use. To enhance fiscal performance, it is recommended that the university strengthen demand forecasting through historical data analysis, improve alignment between budget and actual usage, document and justify overspending where applicable, and closely monitor AGR trends to enable more adaptive and efficient e-resource acquisition strategies.

8.6 Journals , Periodicals and Data Base Subscription Expenditure Analysis: Jadavpur University (2016–2024)

Total Subscription Expenditure vs. Budgeted Allocation (All Modes)

Year	Total Spent (₹)	Total Budget (₹)	AGR (%)	Utilization (%)
2016–17	50,534,227	155,600,000	—	32.47%
2017–18	78,784,943	155,600,000	+55.94%	50.64%
2018–19	90,981,808	155,600,000	+15.49%	58.47%
2019–20	94,049,579	155,600,000	+3.37%	60.43%
2020–21	93,673,217	160,000,000	−0.40%	58.55%
2021–22	99,081,206	160,000,000	+5.78%	61.93%
2022–23	118,285,367	160,000,000	+19.40%	73.93%
2023–24	103,223,461	160,000,000	−12.72%	64.51%

8.7 Trends in Mode of Subscription:

1. **Databases(d-Base)**: Subscription to databases has remained steady, with a moderate increase from 16 titles in 2016–2017 to 24 in 2023–2024. Expenditure rose sharply from ₹43.41 lakh to ₹179.34 lakh. This reflects a growing institutional reliance on database platforms to support diverse academic disciplines.
2. **Online Journals**: Online journal subscriptions peaked in 2022–2023 with 10,484 titles and ₹1042.23 lakh in expenditure. In 2023–2024, while the expenditure stayed high at ₹820.49 lakh, the number of titles dropped significantly to 7077. This suggests a possible shift in licensing models or cancellation of low-use packages.
3. **Print + Online Journals**: The hybrid model saw a significant decline over time, from 93 titles in 2016–2017 to just 13 in 2023–2024. Budgetary allocation also fell, indicating a shift away from dual-format subscriptions due to cost or redundancy.
4. **Print Journals (including Newspapers and Magazines)**: Print subscriptions reduced dramatically both in number (from 318 to 195) and cost (from ₹38.03 lakh to ₹0.72 lakh). This reflects the ongoing trend in academia of moving towards digital resources for ease of access and cost-efficiency.
5. **Salt Lake Library Subscriptions**: Data for Salt Lake Library appears only in the final two years. Notably, 12–13 online journal/database titles are maintained with a budget of ₹17.82–17.84 lakh, while print and newspaper subscriptions are limited to 6 titles, costing ₹0.96 lakh. This localized data implies differentiated collection strategies per campus.

The university's total subscription expenditure more than doubled from ₹50.5 million in 2016–17 to ₹118.3 million in 2022–23 before retracting slightly in 2023–24. Utilization of the overall budget improved progressively, from 32.47% in 2016–17 to a peak of 73.93% in 2022–23, indicating stronger alignment between planning and procurement cycles.

The AGR peaked in 2017–18 at +55.94%, corresponding to accelerated investment in digital subscriptions—particularly evident in the nearly ₹26 million

rise in online journal spending. The downturn in 2023–24 (−12.72%), despite a still-high expenditure base, suggests either rationalization, renegotiation of contracts, or temporary deferment of renewals.

Digital Resource Emphasis and Format Transitions

- Online Journals: Spending rose steadily across the years—from ₹38.7 million in 2016–17 to ₹104.2 million in 2022–23—before easing in 2023–24. This reflects sustained digital prioritization and increased content bundles via consortia or vendor aggregators.
- Databases (dBase): Expenditure on bibliographic and full-text databases also grew over time, from ₹4.3 million to ₹17.9 million in 2023–24, indicating greater faculty and research dependency on curated digital repositories.
- Print and Hybrid Subscriptions: Both *Print + Online* and *Print-only* modes witnessed steep declines:
    - Print newspapers/magazines dropped from ₹3.8 million in 2016–17 to just ₹71,821 in 2023–24.
    - Print + Online journal costs decreased from ₹3.6 million to ₹1.28 million, signifying format migration and cost containment.
- Satellite Campus Inclusion: From 2022–23 onward, Salt Lake Campus acquisitions appear in the ledger, modestly adding to central expenditure (e.g., ₹1.78 million in Online Journals + Database).

Between 2016–2024, Jadavpur University's scholarly content strategy evolved from print-reliant to digitally anchored. Improved budget absorption rates and sustained investment in online journals and databases highlight a digitally maturing academic ecosystem. However, year-on-year variability in expenditure,

particularly in 2023–24, suggests the importance of dynamic pricing surveillance and multi-year procurement planning to ensure continuity and cost-effectiveness.

8.8 Cost-Benefit Analysis (CBA) of Journal and Periodical Subscriptions (2016–2024):

1. Key Metrics Used

To evaluate the cost-benefit, the **Cost per Title** was calculated:

Cost per Title = Total Amount Spent ÷ Number of Titles Subscribed

This allows us to compare the economic efficiency of each mode of subscription across the years.

2. Cost per Title Analysis by Subscription Mode:

Mode	Year	Titles	Amount (₹)	Cost/Title (₹)	Observation
Database	2016–17	16	43,41,778	₹2,71,361	High fixed cost, fewer titles
	2023–24	24	1,79,34,272	₹7,47,261	Cost per title has nearly tripled
Online Journals	2016–17	5365	3,87,12,461	₹7,217	High value per title
	2022–23	10,484	10,42,23,437	₹9,939	Slightly higher, still cost-effective
	2023–24	7077	8,20,48,916	₹11,595	Costs per title increased by 60%
Print + Online	2016–17	93	36,76,948	₹39,520	Costlier hybrid model
	2023–24	13	12,87,916	₹99,070	High cost, low usage—least cost-efficient
Print Journals	2016–17	318	38,03,040	₹11,951	Moderately cost-effective
	2023–24	195	71,821	₹368	Extremely cost-efficient, likely due to fewer high-cost titles
Salt Lake (Online + dBase)	2022–23	13	17,82,777	₹1,37,137	Small scale, high cost
	2023–24	12	17,84,536	₹1,48,711	No change in pattern
Salt Lake (Print)	2023–24	6	96,000	₹16,000	Moderate cost for newspapers/magazines

The cost-benefit analysis of journal and periodical subscriptions at Jadavpur University from 2016 to 2024 reveals marked contrasts in economic efficiency across different acquisition models. Online journals consistently emerged as the most cost-effective mode, with a reasonable increase in cost per title (from ₹7,217 in 2016–17 to ₹11,595 in 2023–24) that reflects inflation and expanded access, while maintaining broad disciplinary coverage. In contrast, hybrid Print + Online subscriptions proved increasingly unsustainable, with the cost per title escalating to nearly ₹99,070 by 2023–24—despite their declining adoption—making them the least efficient investment. Databases, though academically valuable for metadata depth and archival access, displayed steep cost increases with relatively limited title counts, resulting in high per-title costs (e.g., ₹7.47 lakh in 2023–24). Print journals appeared extremely inexpensive in recent years (₹368 per title in 2023–24), yet this likely reflects low-value regional or administrative titles rather than core scholarly content. Salt Lake Campus subscriptions exhibited high unit costs due to their small scale. Based on these trends, the university would benefit from prioritizing online journals, reconsidering hybrid formats, cautiously managing database investments, and evaluating satellite library needs independently to ensure cost-effectiveness and maximize scholarly impact.

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CHAPTER: – 9

DATA INTERPRETATION AND ANALYSIS

***"We are all in the gutter, but some of us are looking at the stars."* — Oscar Wilde**

9.0 Jadavpur University Library Collection:

University libraries play a pivotal role in supporting education and research through well-curated collections. This report aims to qualitatively evaluate the library holdings of Jadavpur University to assess how well the collection supports academic activities, particularly in engineering, science, and arts disciplines. The analysis is based on library records that provide a numerical overview of various item types housed and subscribed to by the library.

1.Printed Resources

- Books (693,909 items): The university has a vast and well-established print book collection. This reflects a long-standing commitment to building a comprehensive academic resource for students and faculty across disciplines.
- Bound Journals (82,154) and Print Journals/Newspapers (197): The presence of bound journals indicates an archival strength, supporting historical research. However, the limited number of current print journals could reflect a strategic shift toward digital access.

2. Electronic Resources

- Online Journals (10,354) and E-books (perpetual – 8,907; E-book Central – 320,000): These numbers highlight a robust digital infrastructure. The

inclusion of over 320,000 e-books through E-book Central significantly increases the accessibility of scholarly material.

- Online Databases (21 + 1 at Salt Lake Campus) and INFLIBNET e-ShodhSindhu (7,109): These databases provide comprehensive access to interdisciplinary academic resources, essential for contemporary research.

3. Academic Research Outputs

- Theses (9,107) and Dissertations (8,631): These collections reflect the university's research output and serve as valuable academic references. The digitization of 6,978 theses in CD format further enhances accessibility.

4. Inclusive and Diverse Resources

- Audio Books (105) and Braille Books (35): The inclusion of accessible materials reflects efforts toward inclusivity, although the quantity suggests potential for further development.
- Standards (3,000): These are critical for engineering and technical disciplines, ensuring students and researchers are guided by current best practices and regulatory frameworks.

5. Non-Book and Miscellaneous Materials

- Non-Book Materials (37,000): Likely including multimedia, teaching aids, and maps, this category supports diverse learning and teaching strategies.

Strengths

- A massive print collection that supports traditional learning.
- An impressive digital transition with extensive online journal and e-book access.
- Inclusion of accessibility features like audio and Braille books.
- Strong archival and research support through theses and bound journals.
- Support for engineering disciplines through a dedicated standard collection.

Limitations and Opportunities

- The low number of Braille and audio books suggests room for expanding inclusive education.
- Print journal subscriptions appear minimal, possibly affecting users preferring physical formats.
- Database and digital journal access at the Salt Lake campus is limited (1 database, 14 journals), indicating a need for parity between campuses.

Fig 1 : Collections of Jadavpur University

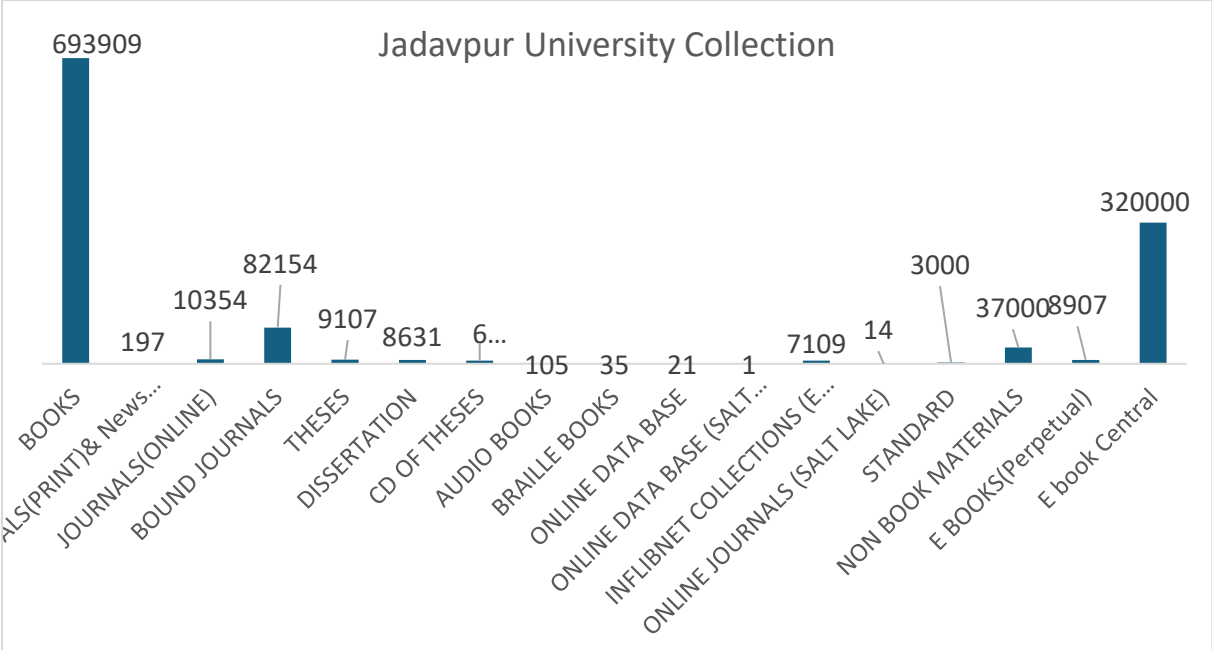


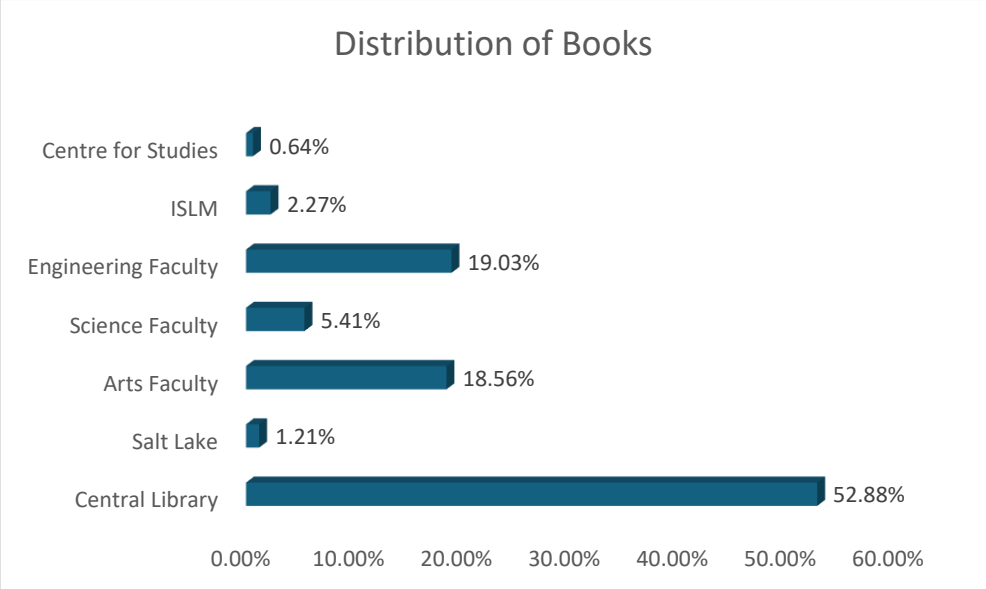
Table 1 :Jadavpur University Library Collections:

Sl No	Item Type	Numbers
1	BOOKS(31/03/2024)	693909
2	JOURNALS(PRINT)& News paper	197
3	JOURNALS(ONLINE)	10354
4	BOUND JOURNALS	82154
5	THESES	9107
6	DISSERTATION	8631
7	CD OF THESES	6978
8	AUDIO BOOKS	105
9	BRAILLE BOOKS	35
10	ONLINE DATA BASE	21
11	ONLINE DATA BASE (SALT LAKE)	1
12	INFLIBNET COLLECTIONS (E SODH SINDHU)	7109
13	ONLINE JOURNALS (SALT LAKE)	14
14	STANDARD	3000
15	NON BOOK MATERIALS	37000
16	E BOOKS(Perpetual)	8907
17	E book Central	320000

Table 2: Faculty wise distribution of Books(31/03/23)

Faculty/ Department	Number of Books	% of Books
Central Library	366658	52.88%
Salt Lake (General)	8380	1.21%
Arts Faculty	128651	18.56%
Science Faculty	37530	5.41%
Engineering Faculty	131908	19.03%
ISLM	15770	2.27%
Centre for Studies	4445	0.64%
Total	693342	100%

Figure 2 : Distribution of Books among Faculties and centres



After review of total collection of the Jadavpur university it is found that , The University has total 693342 books . The broad distribution of books of the University, are as follows : the Arts Faculty have128651,i.e18.56% of total books; The Science faculty has 37530 books , i.e. 5.41% of the total collection ; the Faculty of Engineering and Technology has 131908 books , i.e 19.03% of the total.; Faculty of Interdisciplinary studies Law and Management has 15770 (2.27%) books , Centre for Studies of the university has 4445(0.64%); Salt lake campus Library(General) has 8380 (1.21%) and Central Library has 366934 books , ie 52.88% of the total.

The distribution of book holdings across various faculties, libraries, and academic centres at Jadavpur University reflects the institutional focus, historical priorities, and current academic infrastructure. With a total collection of 693,342 books, the university exhibits a robust academic resource environment. This qualitative analysis explores the relative distribution and academic implications of these holdings.

The Central Library alone houses 366,658 books, accounting for 52.88% of the university's total collection. This overwhelming concentration indicates that the Central Library functions as the core academic resource centre for the entire institution. Its large holdings suggest:

- A multi-disciplinary collection supporting various faculties.
- A centralized acquisition and curation system.
- High accessibility for both undergraduate and postgraduate researchers.

Its pivotal role ensures broad academic support but may also imply a dependence on centralized infrastructure, which could pose challenges for decentralized or faculty-specific research needs.

The Faculty of Engineering and Faculty of Arts collectively account for nearly 38% of the total book holdings, with 131,908 books (19.03%) and 128,651 books (18.56%) respectively. This near-equal distribution underscores Jadavpur University's dual commitment to technical and humanistic disciplines.

- The Engineering Faculty's significant share highlights Jadavpur's legacy and continued excellence in technical education and research.
- The Arts Faculty's comparable volume affirms the university's liberal arts strength, especially in regional languages, philosophy, and cultural studies.

This dual focus reinforces Jadavpur's status as a comprehensive university rather than a technically specialized institution alone.

The Science Faculty holds 37,530 books, which is 5.41% of the total. While lower in percentage than Arts or Engineering, this collection still supports key scientific disciplines.

This proportion suggests that while science is supported, it may benefit from further investment, especially to stay aligned with rapid advances in scientific research.

The ISLM unit, encompassing Interdisciplinary Studies, Law, and Management, holds 15,770 books, which constitutes 2.27% of the total book collection at Jadavpur University. Although relatively modest in volume compared to major faculties like Arts or Engineering, the ISLM collection represents a strategically significant area of academic expansion. Salt Lake Campus holds 8,380 books (1.21%), likely serving a satellite campus or specific departments.

Centre for Studies possess 4,445 books (0.64%), possibly supporting interdisciplinary or research-specific initiatives.

These numbers, while modest, highlight the university's effort to extend resource access beyond the main campus, although further resource strengthening in these areas could improve academic equity.

9.1 Faculty of Arts:

Jadavpur University has always been more than just an engineering institute. The historic decision to establish a College of Arts and Sciences was made in 1955. Only three-year honours programs leading to Bachelor's degrees in Arts and Sciences and postgraduate programs leading to Master's degrees were adopted by the university.

Jadavpur University's Faculty of Arts began operations in 1955 with departments in English, Bengali, Economics, Comparative Literature, History, International Relations, Philosophy, and Sanskrit. The founding members of these departments were experts in their respective professions. The original plan for Jadavpur University was to tie the three faculties together with a single tie so that students may study the subjects of their choice while also gaining a comprehensive understanding of their language, history, and culture. New departments have been added to the list as time has gone on in order to meet current demands and provide teachers and students with access to research on current concerns. The Faculty of Arts currently consists of 20 centres and 13 departments. Since its foundation, this faculty has been known for its innovative and distinctive curriculum, contemporary perspective, and top-notch research. It also acts as a model for other colleges throughout the state and the nation. With the exception of a handful, the UGC has acknowledged the academic brilliance of the majority of this faculty's departments as centres of special assistance (DRS, DSA, and CAS). Both teacher and student exchange programs have been successfully conducted between the Faculty of Arts and other prestigious foreign universities, including Bolzano University in Italy, Momoyama Gakuin University, and Tokyo University of Foreign Studies, to name a few.

Faculty of Arts started functioning from the academic year 1956-1957. At the outset all the arts subject offered both undergraduate and postgraduate courses.

A deep review of the department wise distribution of books in Faculty of Arts are given in a tabular and graphical form are as follows:

Table 3: Department wise Books Distribution in Faculty of Arts

DEPARTMENT	NUBER OF BOOKS
BENGALI	24875
COMPARATIVE LITERATURE	20505
ECONOMCS	8630
EDUCATION	1386
ENGLISH	11287
FILM STUDY	3411
HISTORY	11132
INTERNATIONAL RELATONS	9425
LIBRARY AND INFORMATION SCIENCE	4779
PHILOSOPHY	13397
PHYSICAL EDUCATON	2816
SANSKRIT	16080
SOCIOLOGY	928
Total	128651

Faculty of Arts have thirteen departments , namely Bengali, Comparative literature, Economics, Education, English, Film study, History, International Relations, Library and Information Science, Philosophy, Physical Education, Sanskrit, and Sociology.

The distribution of books across different academic departments provides valuable insight into the intellectual priorities and academic culture of the institution.

Dominance of Humanities and Language Studies :

The highest number of books is found in the Bengali department (24,875), followed closely by Comparative Literature (20,505), Sanskrit (16,080), and Philosophy (13,397). These figures indicate a strong institutional emphasis on regional language, classical literature, and philosophical traditions. It reflects a rich investment in both vernacular scholarship and theoretical disciplines, perhaps due to the institution's historical roots or its academic mission to preserve cultural and literary heritage.

Moderate Representation of Global Disciplines:

Departments like English (11,287), History (11,132), and International Relations (9,425) hold a substantial number of books, indicating a healthy engagement with global perspectives and critical inquiry. These disciplines typically form the backbone of interdisciplinary research, suggesting the university supports curricula that span both local and international concerns.

Underrepresentation of Social Sciences and Applied Fields

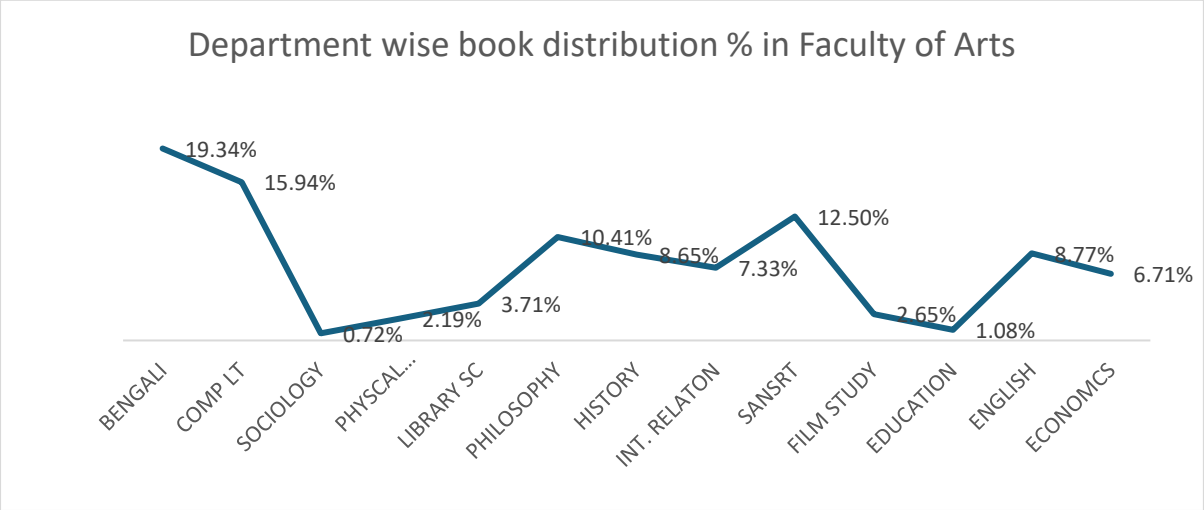
Surprisingly, departments such as Economics (8,630), Library and Information Science (4,779), Physical Education (2,816), Education (1,386), and Sociology (928) have fewer resources. This may point to:

- A possible imbalance in funding or acquisition priorities.
- A newer establishment or relatively recent expansion of these departments.
- Lower student enrolment or faculty research output driving less demand for extensive collections.

The Sociology department in particular appears under-resourced compared to its central role in understanding contemporary societal structures.

The presence of Film Study (3,411 books) is notable, reflecting a modern and interdisciplinary approach to humanities. While it does not match traditional subjects in size, its representation shows institutional support for evolving fields and non-traditional academic disciplines.

Figure 3: Book Distribution percentage Among the Department of Arts Faculty



9.1.1 Department of Bengali:

The Department of Bengali at Jadavpur University, established in 1956, has evolved into a leading institution for Bengali language and literature. The department offers undergraduate, postgraduate, and doctoral programmes with a curriculum that encourages critical and creative thinking. Special areas of focus include literary theory, partition literature, popular literature, semiotics, and Chomskyan grammar. It has successfully completed UGC-sponsored DRS SAP Phase I & II projects.

Regular seminars, workshops, and symposiums are conducted, involving prominent academics and cultural figures to foster academic and community engagement. The department boasts modern facilities and a rich library with over

eighteen thousand books and journals. It publishes the long-standing journal *Bangla Bibhagiyo Patrika* and has recently expanded into academic book publishing.

The Department holds 24875 books, i.e. 19.34% of the total books of Arts Faculty(128651) and 3.59% of the entire book collection 693342 of the University. A Critical analysis of the entire collection shows a interesting picture

Figure 4: Bengali Books among Arts Faculty

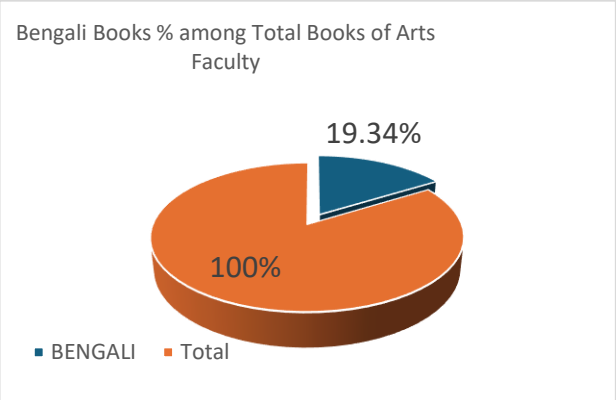
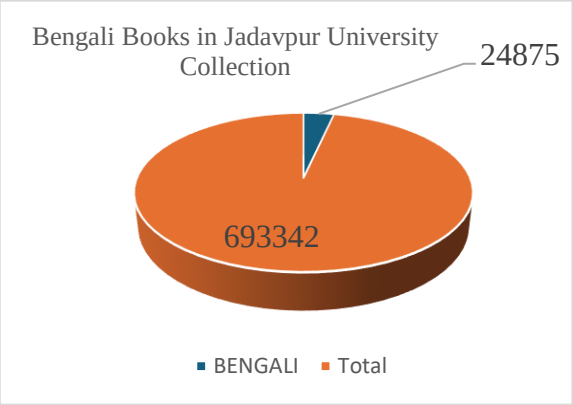
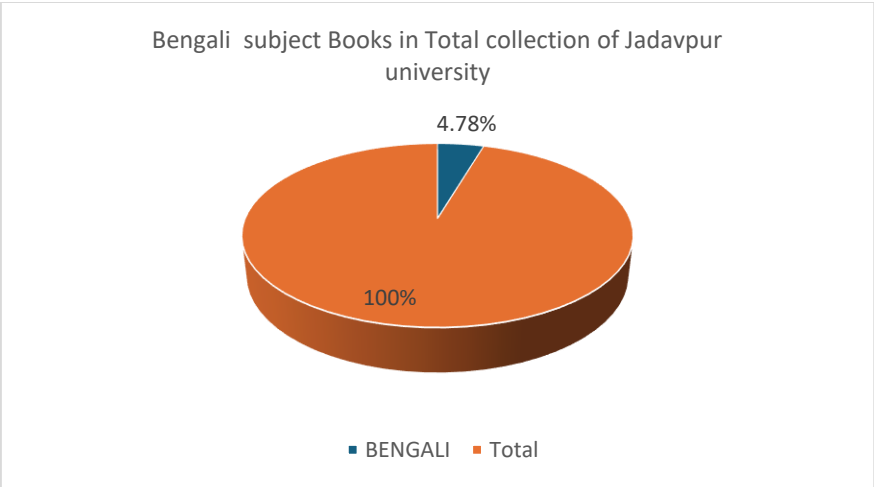


Figure 5: Bengali books and Total Collection



Here the entire collection of the University assumes as universe of subjects. 891.44 class of the schedule , which represents Bengali literature , the whole series of 891.44 – 891.44-9 including of all facets of UDC.

Figure 6: Total Book Collection and Bengali Books



University uses UDC for classification of subjects, was taken for analysis. Among 693342 books 33146 belongs to 891.44 range, i.e. 4.78% of the total collection. Here these 33146 Bengali literature books means all the books belongs to the subject Bengali literature spread over central library and the departments of the university.

The evaluation of the Bengali books of J U and its findings is as follows. The below analysis will cover the various aspects of less used and unused Bengali books of the University.

By Use : Among total collection of Bengali books(33136) , a critical analysis find out 1366 books as never used and less used, which is 5.49% of total collection of the department and 0.20% of entire collection.

Used	Number of Books
Used 0	744
Used 1	401
Used 2	221
Total	1366

Percentage of Each Category

Used 0: (744 / 1366) × 100 ≈ 54.46%

Used 1: (401 / 1366) × 100 ≈ 29.36%

Used 2: (221 / 1366) × 100 ≈ 16.18%

Mean Usage

Mean (μ)

$$\mu = \frac{\sum(x_i \cdot f_i)}{N}$$

- x_i: value (times used: 0, 1, 2)
- f_i: frequency (number of books used x_i times)
- N: total number of books

$$\text{Mean Usage} = \frac{(0 \times 744) + (1 \times 401) + (2 \times 221)}{1366} = \frac{843}{1366} \approx 0.617$$

Standard Deviation (σ) (Spread of Usage)

Using a basic formula:

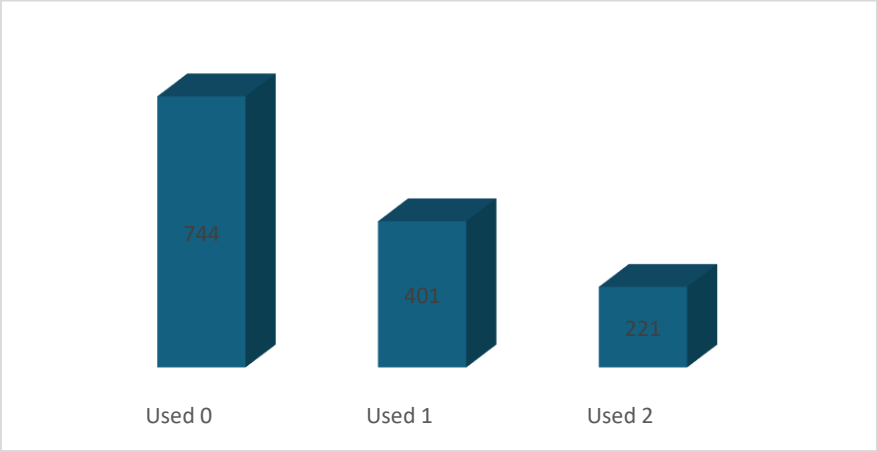
$$\text{SD} = \sqrt{\frac{\sum(x_i - \bar{x})^2 \cdot f_i}{N}}$$

Where:

- x_i = usage (0, 1, 2)
- f_i = frequency
- $\bar{x}$ = mean ≈ 0.617

$$\text{SD} = \sqrt{\frac{(0 - 0.617)^2 \cdot 744 + (1 - 0.617)^2 \cdot 401 + (2 - 0.617)^2 \cdot 221}{1366}} \approx 0.708$$

Figure 7: Use of Bengali Books



High Inactivity (Used 0 Books), Over 54% of books were never used. This may indicate:A mismatch between book content and curriculum relevance.Lack of awareness or accessibility.

Moderate Usage (Used 1 Time), About 29% were used once—could indicate: Used for a single topic or exam,

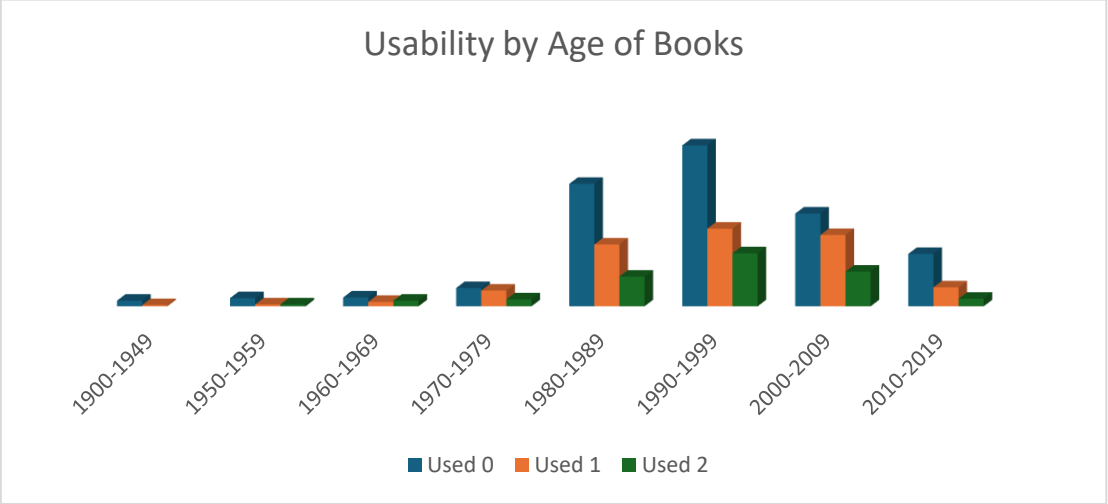
Required reading not fully covered or enforced

Low Reuse (Used 2 Times) Only 16% used twice.

By Year of Publication:

Year wise group	Used 0	Used 1	Used 2	Grand Total
1900-1949	9	2		11
1950-1959	13	3	3	19
1960-1969	14	7	9	30
1970-1979	29	25	11	65
1980-1989	194	98	47	339
1990-1999	255	123	84	462
2000-2009	147	113	55	315
2010-2019	83	30	12	125
Grand Total	744	401	221	1366

Figure 8: Usability by Age of Books



Peak Usage: Books from 1980s–2000s

- 1980–1999: This 20-year span includes 801 books, of which:
    - 60.8% were used at least once (e.g., 1980s: 145/339; 1990s: 207/462).
    - Over one-third (131 books) were used twice.

Steady Decline After 2000

2000–2009: Usage remains moderate (over 50% used), but drop in "Used 2" numbers (17.5% vs. 18.2% in 1990s).

2010–2019: Sharp drop in overall use: Only 35% used at all and just 12 books (9.6%) used more than once

Pre-1980 Books Have Low Utility Today

1900–1979: Total of 125 books , Only 45 used at all (36%)

Minimal reuse (Used 2: just 23 books)

Usage Efficiency by Period

Year Group	% Used At Least Once	% Used Twice
1900–1949	18.2%	0%
1950–1959	31.6%	15.8%
1960–1969	53.3%	30.0%
1970–1979	55.4%	16.9%
1980–1989	57.2%	13.9%
1990–1999	55.2%	18.2%
2000–2009	53.3%	17.5%
2010–2019	36.0%	9.6%

By Place of Publication: The table presents the usage distribution of books categorized by place of publication—Foreign vs. Indian—and grouped into three usability levels: Used 0 times, Used 1 time, and Used 2 times. The total number of books examined is 1,366.

Usability of Books by Place of Publication

Place of Publication	Used 0	Used 1	Used 2	Grand Total
Foreign	50	26	21	97
Indian	694	375	200	1269
Grand Total	744	401	221	1366

Dominance of Indian Publications :Indian publications account for 92.89% of the total collection (1,269 out of 1,366 books), while foreign publications comprise only 7.10%.This skew indicates a heavy reliance on Indian-published resources, which is expected for Bengali language and literature collections, as most scholarly and literary output in this domain originates from India, particularly West Bengal.

Usability Patterns: A High Non-Use Rate found , 694 Indian books (54.7%) were never used, 50 foreign books (51.5%) were also never used.

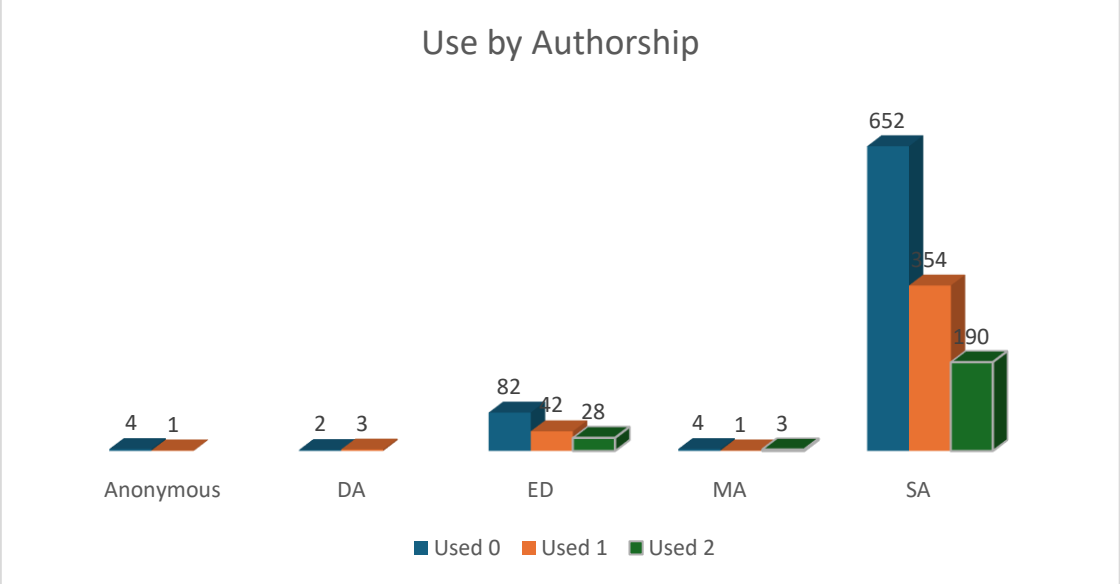
Moderate Use: Indian books used once: 375 (29.5%) and Foreign books used once: 26 (26.8%)

High Use (Used Twice): Indian books: 200 (15.8%) and Foreign books: 21 (21.6%)

By Authorship :

Authorship	Used 0	Used 1	Used 2	Grand Total
Anonymous	4	1		5
DA	2	3		5
ED	82	42	28	152
MA	4	1	3	8
SA	652	354	190	1196
Grand Total	744	401	221	1366

Figure 9: Authorship wise Usability of Boks



Percentage Distribution by Usage:

Let's calculate the percentage of each usage level per authorship type.

Authorship	Used 0	Used 1	Used 2
Anonymous	80.00%	20.00%	0.00%
DA	40.00%	60.00%	0.00%
ED	53.95%	27.63%	18.42%
MA	50.00%	12.50%	37.50%
SA	54.52%	29.60%	15.88%

Mean Usage by Authorship Type

We calculate a weighted average (usage × frequency ÷ total):

- Anonymous: $(0\times4 + 1\times1 + 2\times0)/5 = 0.2$
- DA: $(0\times2 + 1\times3 + 2\times0)/5 = 0.6$
- ED: $(0\times82 + 1\times42 + 2\times28)/152 = (98/152) \approx 0.645$
- MA: $(0\times4 + 1\times1 + 2\times3)/8 = (7/8) = 0.875$
- SA: $(0\times652 + 1\times354 + 2\times190)/1196 = (734/1196) \approx 0.613$

Relative Contribution to Total Usage

From the total of 1366 books, SA (Single Author) contributes: 87.6% of books of each usage category (1196 out of 1366)

ED (Edited works) are the second most significant, i.e.11.1% of books. But relatively more books reach the 2-time usage mark compared to others (18.42%)

SA (Single Authors) Dominance Most books are by single authors (SA).

But over half (54.52%) of SA books are never used,

Edited Volumes (ED) ED books have the highest relative repeat use (28 books used twice = 18.4%).

Low Engagement for Anonymous and DA Works

Anonymous: Almost entirely unused (80% never used, 0 used twice)

DA (Departmental Authors): Some interest, but no deep engagement (none used twice)

Suggests possible lack of credibility, depth, or trust in anonymous sources

High Efficiency of MA (Multiple Authors)

- Smallest sample (8 books), but highest average usage (0.875) and 37.5% used twice, Indicates potential quality through collaboration.

By Edition:

Editions	Used 0	Used 1	Used 2	Grand Total
1st ed	694	375	212	1281
2nd ed	15	13	4	32
3rd ed	17	6	3	26
4th ed	10	2	2	14
5th ed	2	2	-	4
11th ed	3	1	-	4
7th ed	1	1	-	2
10th ed	1	1	-	2
6th ed	1	-	-	1
Grand Total	744	401	221	1366

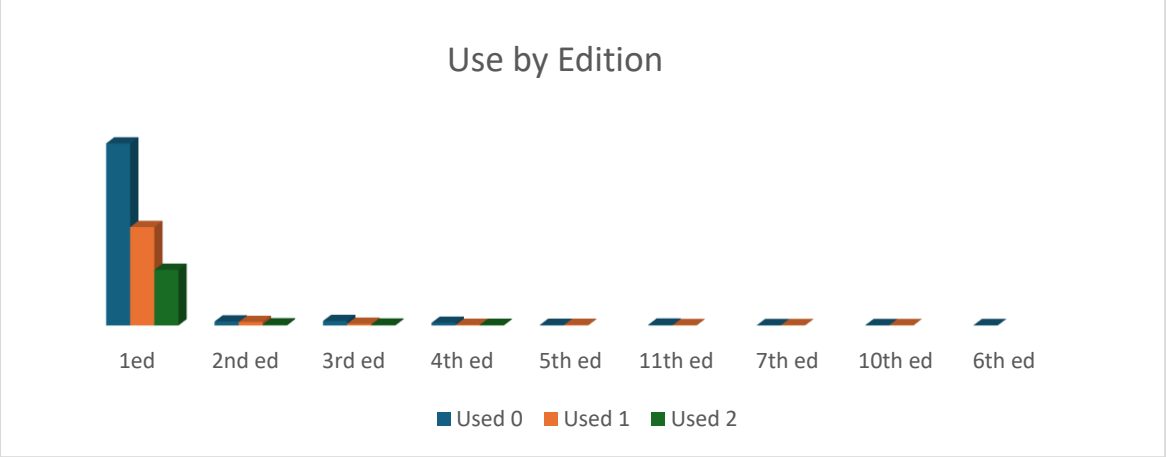
1st Edition Dominance with Declining Use.1st editions account for ~94% of the total collection (1281 out of 1366).However, over 54% of these (694 books) remain unused.Only 16.5% (212 books) were used more than once.

Later Editions Show Slightly Higher Engagement (Relatively).Though small in number, 2nd to 4th editions show better usage ratios: 2nd ed: 53% used at least once.4th ed: 28% used more than once (2/14).3rd ed: ~35% usage (9/26).

Repeated Use Drops After 4th Edition. Editions 5th and beyond show minimal to no reuse.Only 1 or 2 books per edition used once, none used twice.

By Selection: To examine how the source of book selection (Central Library List, Departmental, Other Departments, or Gifts) influences the actual use of Bengali books in academic contexts.

Figure10: Edition wise Usability

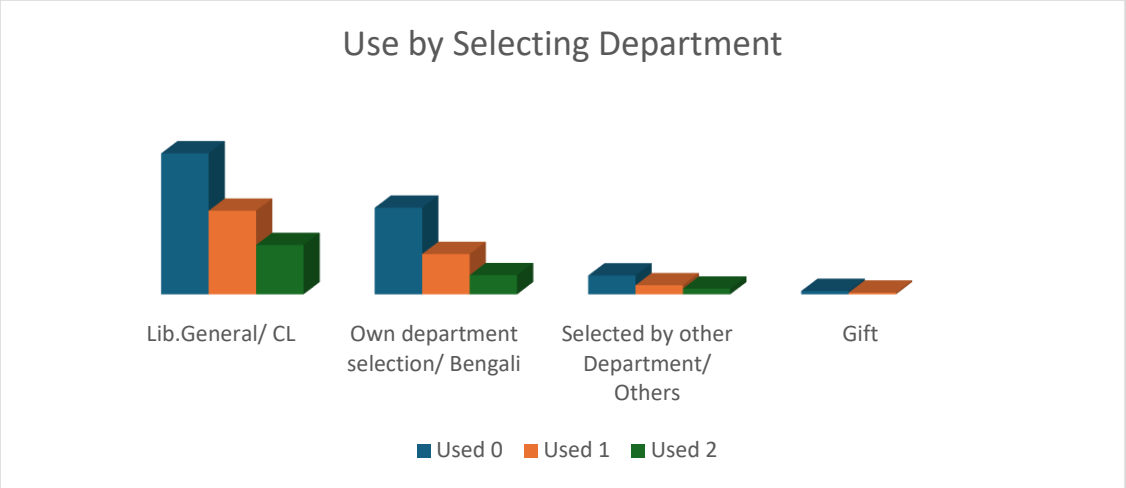


Library General Selection (Lib. General / Central List), 816 books (60% of total) came from centralized library selection. However, 420 (51.5%) were never used, and only 147 (18%) were used twice.

Centralized acquisition may emphasize availability and quantity over curriculum relevance. Indicates a gap between procurement policy and departmental academic needs.

Selection by Own Department (Bengali) 435 books (32%) were directly selected by the Bengali department.

Figure 11: Books Selection Source and Usability



Usage efficiency is significantly higher:

- 258 (59%) used at least once
- 57 books (13%) used twice

Departmental selection aligns more closely with syllabi, teaching needs, and faculty expertise. Indicates higher return on investment when departments are involved in selection.

Other Department Selections; 100 books were selected by other departments.56 never used; only 17 used more than once.

Gifted Books: 15 books were acquired as gifts. 10 remain unused; none used twice.

Gifts often do not align with academic or curricular priorities. Should be evaluated critically before shelving.

Summary Table: Usage by Selecting Department

Selecting Dept.	Used 0	Used 1	Used 2	% Used ≥1	% Used 2
Library General / CL	420	249	147	48.5%	18.0%
Bengali Department	258	120	57	40.7%	13.1%
Other Departments	56	27	17	44.0%	17.0%
Gift	10	5	0	33.3%	0.0%
Total	744	401	221	—	—

By Price: The source of selection has a measurable impact on academic book usage. Bengali department selections yield the most efficient usage, while central library or gift-based acquisitions often lead to underutilization. This underscores the need for a collaborative, demand-driven acquisition model that prioritizes faculty input and curricular relevance.

This section explores the relationship between book price, selection source, and usage frequency. By combining acquisition cost with usage data, we aim to assess the cost-effectiveness and academic value of books selected by different stakeholders, including the central library, departmental committees, other departments, and gifts.

Central Library (Lib. General / CL) Selections

Price Range	Total Books	Used ≥1	Used 2	% Used ≥1
₹1–100	527	253	90	48.0%
₹101–200	160	77	33	48.1%
₹201–300	88	40	16	50.0%
₹301–400	13	7	4	53.8%
₹401–500	16	14	2	87.5%
₹501–600	7	4	2	57.1%
₹700–1000	5	1	0	20.0%

Most books (87.5%) in the ₹401–500 bracket were used at least once—suggesting moderate-cost books may offer higher curricular value.

Books priced ₹700+ had very low usage, potentially due to niche content, fewer copies, or affordability issues.

Low-cost books (₹1–100) dominate numerically but have modest use efficiency (~48%).

Bengali Department Selections

Price Range	Total	Used ≥1	Used 2	% Used ≥1
₹1–100	395	158	49	40.0%
₹101–200	34	14	5	41.2%
₹201–400	6	4	3	66.7%

While most department selections are in the low-cost ₹1–100 range, their usage rate (40%) is slightly lower than central library picks in that bracket.

However, department-selected books in ₹201–400 range perform significantly better (up to 66.7% usage), indicating well-judged value-based selection.

Other Department Selections

Price Range	Total	Used ≥1	Used 2	% Used ≥1
₹1–100	86	32	12	37.2%
₹101–200	13	11	5	84.6%

Surprisingly, higher-cost books selected by other departments (₹101–200) had the highest usage rate across the dataset (84.6%).Indicates that when non-Bengali departments select slightly more expensive titles, they may be high-impact interdisciplinary texts.

Gifted Books

Price Range	Total	Used ≥1	Used 2	% Used ≥1
₹1–100	7	2	0	28.6%
₹101–200	6	2	0	33.3%
₹201–300	2	2	0	100%

Gifted books are rarely used unless they are well-aligned with mid-range pricing (₹200+), which may reflect higher-quality academic titles.

Suggests gifted books should be screened based on content relevance, not just cost.

Price–Use Relationship Summary

- Mid-range priced books (₹200–500) have consistently higher usage rates across all selection types.
- Books under ₹100 form the bulk of the collection but suffer from moderate to low engagement.
- High-cost books (₹700+) are extremely underused, possibly due to specialized content or limited accessibility.

Cost-Effectiveness of Selectors

Selector	Avg. Usage Efficiency	Best Performing Price Bracket
Library General	Moderate	₹401–500 (87.5% used)
Bengali Dept	Moderate	₹201–400 (66.7% used)
Other Depts	High	₹101–200 (84.6% used)
Gifts	Low	₹201–300 (limited sample)

Cost-Effectiveness Index (CEI) Table

Selecting Department	Price Range (₹)	Used 1 + Used 2	Total Selected	Usage Rate (%)	Avg. Price (₹)	CEI (Usage % / Price)
Lib. General / CL	1–100	253	527	48.01%	50	0.960
	101–200	77	160	48.13%	150	0.321
	201–300	40	88	45.45%	250	0.182
	301–400	7	13	53.85%	350	0.154
	401–500	14	16	87.50%	450	0.194
	501–600	4	7	57.14%	550	0.104
	700–1000	1	5	20.00%	850	0.024
Own Dept / Bengali	1–100	158	395	40.00%	50	0.800
	101–200	14	34	41.18%	150	0.275
	201–300	3	4	75.00%	250	0.300
	301–400	2	2	100.00%	350	0.286
Other Dept / Others	1–100	32	86	37.21%	50	0.744
	101–200	11	13	84.62%	150	0.564
	201–300	1	1	100.00%	250	0.400
Gift	1–100	2	7	28.57%	50	0.571
	101–200	2	6	33.33%	150	0.222
	201–300	1	2	50.00%	250	0.200

An analysis was conducted to evaluate the cost-effectiveness of Bengali book selections across departments and price ranges. Cost-effectiveness was measured using the Cost-Effectiveness Index (CEI), defined as the ratio of the usage rate (percentage of books used at least once) to the average price within a given price category.

Library/General (CL) selections showed high cost-effectiveness for books priced in the ₹1–100 range, with a CEI of 0.960, the highest among all groups. The usage

rate for this price range was 48.01%, demonstrating strong utilization of low-cost materials. As book prices increased, CEI generally declined. For example, in the ₹501–600 range, CEI dropped to 0.104, and in the ₹700–1000 range, it was just 0.024. These trends suggest that higher-priced books in this category are less likely to be used proportionally to their cost.

Books selected by their own department (i.e., Bengali department) also performed well in the low-price category, with a CEI of 0.800 for books priced ₹1–100 and 0.275 for books priced ₹101–200. Although a smaller number of titles were selected in higher price ranges, those few selections (e.g., ₹301–400) had a 100% usage rate, resulting in a relatively high CEI (0.286). However, due to the limited volume in these higher price ranges, the findings should be interpreted cautiously.

Selections by other departments showed moderate usage efficiency. In the ₹1–100 category, the CEI was 0.744, while in the ₹101–200 group, it was 0.564. Although the number of books was lower compared to other groups, these values indicate reasonably good selection effectiveness for lower-priced titles.

Gifted books displayed mixed results. For instance, in the ₹1–100 category, usage was relatively low, with a CEI of 0.571, and it declined further in higher price categories.

Across all selection categories, books priced below ₹200 consistently demonstrated the highest cost-effectiveness, supporting the argument that affordable Bengali books are more likely to be used. The analysis suggests that acquisition strategies should prioritize books within the ₹1–100 and ₹101–200 price brackets to optimize both budget efficiency and user engagement.

Cost-Benefit Analysis of Bengali Book Collection

The Bengali Department's book collection, consisting of 435 books, reflects a thoughtful acquisition strategy with a significant portion (395 books) priced between ₹1–100, and the rest spread across higher price brackets. Analyzing

usage patterns, 120 books have been used once and 57 used more than once, leading to a total of 177 books (40.7%) being used at least once. This usage rate is moderately strong, indicating that nearly half of the department's selected titles meet actual academic demand.

From a cost-effectiveness perspective, the highest-performing segment is the lowest price group (₹1–100), which accounts for 395 titles—of which 158 (109 used once and 49 used twice) have been utilized. This shows a usage rate of 40% for this segment, suggesting a good return on investment given the low cost. Higher-priced groups (₹101–200 and above) contribute far fewer titles and show varied usage, but due to the low numbers, their impact on overall cost-effectiveness is minimal.

9.1.2 Department of Economics:

The Economics Department began operations in 1955. As time went on, the department developed remarkable recognition. A Centre for Regional Economic Studies was established at the department by UGC in 1987 as part of the DSA program. The UGC has designated it a Centre for Advanced Studies, making it the only economics department in the eastern zone and one of four in India.

The library of Economics department have 8630 books, i.e. 6.71% of the total books of Faculty of Arts departments, and 1.25%of entire books of Jadavpur University.

Figure 12: Economics Books in Arts Faculty

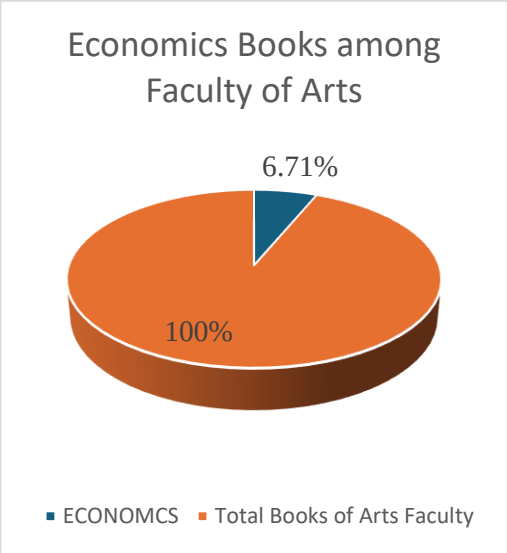
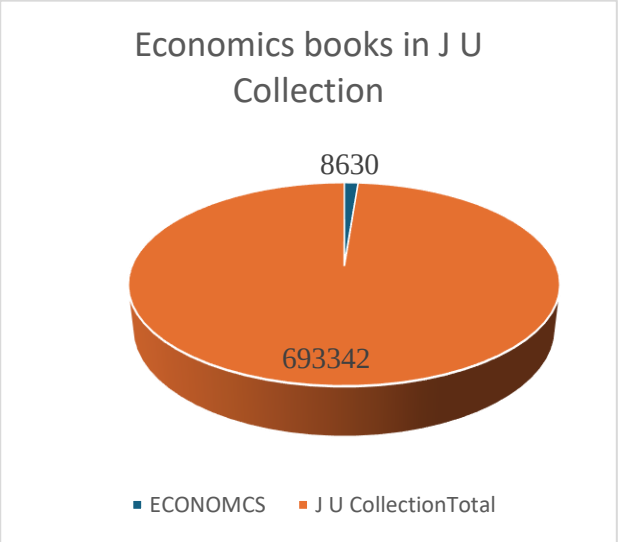
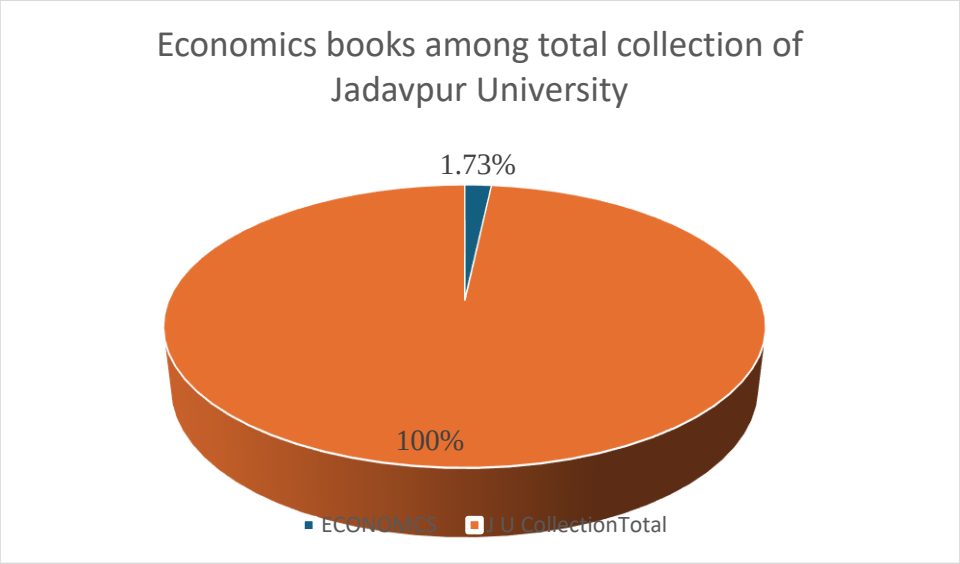


Figure 13 : Economics Books and Total Collection



A Critical analysis of the entire collection shows a interesting picture . Here the entire collection of the University assume as universe of subjects. 33 class of the schedule , which represents Economics, the whole series of 33 – 339.9 including of all facets of UDC, as the University uses UDC for classification of subjects was taken for analysis.

Figure 14: Economics Books percentage among Total Books



Among 693342 books 11992 belongs to 33 – 339.9 range, i.e. 1.73% of the total collection. Here these 11992 Economics books mean all the books belongs to the subjects Economics spread over central library and departments of the university.

The evaluation of the Economics books of Jadavpur University and its findings is as follows. The below analysis will cover the various aspects of less used and unused Economics books of the University.

By Use: Among total collection of Economics books(11992) , a critical analysis find out 548 books as never used and less used, which is 6.35% of total collection of the department and 0.08% of entire collection.

Evaluation of Economics Books (Based on Usage)

Usability	Number of Books	Percentage
Used 0	302	55%
Used 1	180	33%
Used 2	66	12%
Grand Total	548	100%

This appears to represent library usage statistics for a set of economics books, where:

- "Used 0" means 302 books were never used.
- "Used 1" means 180 books were used once.
- "Used 2" means 66 books were used twice.

Mean(μ)

$$\mu = \frac{\sum(x \cdot f)}{N}$$

Where:

- x = number of times used
- f = number of books with that usage
- $N = 548$ (total books)

$$\mu = \frac{(0 \cdot 302) + (1 \cdot 180) + (2 \cdot 66)}{548} = \frac{0 + 180 + 132}{548} = \frac{312}{548} \approx \boxed{0.569}$$

Standard Deviation (σ)

$$\sigma = \sqrt{\frac{\sum f(x-\mu)^2}{N}}$$

We'll calculate $(x-\mu)^2 \cdot f$ for each group:

x	f	$x-\mu$	$(x-\mu)^2$	$f(x-\mu)^2$
0	302	-0.569	0.323	302 × 0.323 = 97.546
1	180	0.431	0.186	180 × 0.186 = 33.48
2	66	1.431	2.048	66 × 2.048 = 135.168

$$\sigma = \sqrt{\frac{97.546 + 33.48 + 135.168}{548}} = \sqrt{\frac{266.194}{548}} \approx \sqrt{0.486} \approx \boxed{0.697}$$

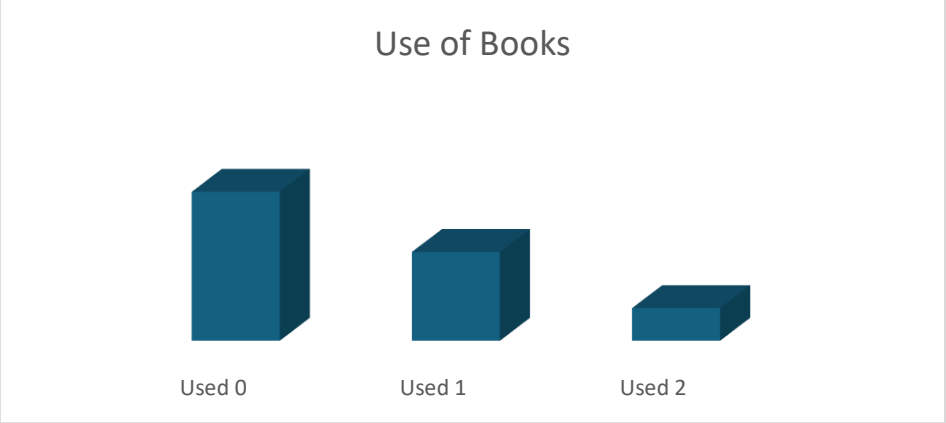
The average usage of an economics book is 0.57 times, indicating very low overall engagement.

The standard deviation of 0.70 suggests that most books cluster around this low average, with relatively small variation.

Relevance and Selection Issues : Majority Unused (55%): With 302 out of 548 books never used, more than half of the underused economics books appears to be irrelevant, outdated, or not aligned with student/research needs.

This suggests inefficiencies in selection criteria—books may be acquired without proper consideration of course requirements, student interests, or current trends in economics.

Figure 15: Use of Economics Books



Moderate Usage (33%) 180 books were used only once. This might reflect, Use for one-time assignments or specific topics. Books being too specialized or not engaging enough for repeated use.

Low Repeat Usage : Only 66 books (12%) were used twice. If no book has been used more than twice, it indicates very limited ongoing demand, which might imply; The collection lacks core textbooks or frequently referenced materials.

By Year of Publication: An analysis of 548 economics books revealed that a substantial proportion were under-used, defined as being used either zero or one time. The data is broken down by decade of publication in the table below:

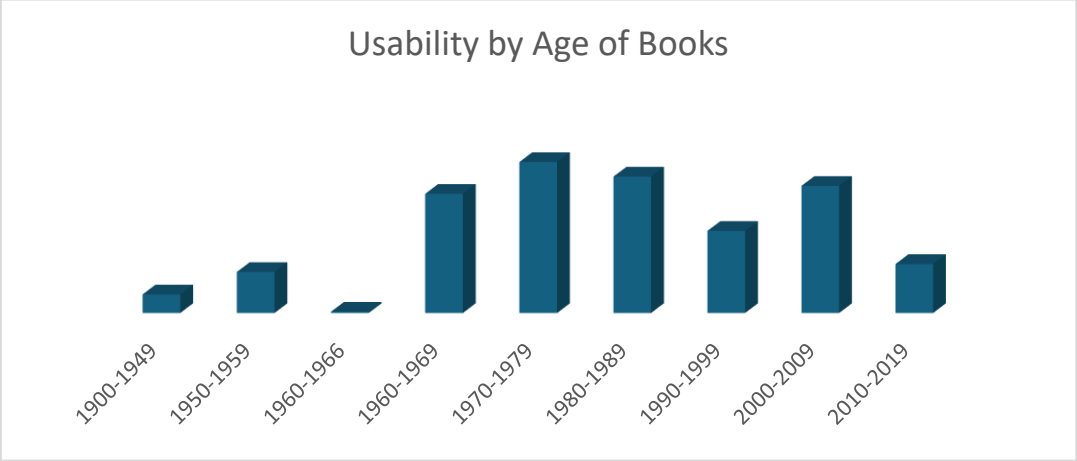
Decade	Total Books	Used 0	Used 1	Under-Used (0+1)	% Under-Used
1900–1949	14	3	6	9	64.3%
1950–1959	31	11	16	27	87.1%
1960–1966	1	1	0	1	100.0%
1960–1969	90	32	36	68	75.6%
1970–1979	114	73	27	100	87.7%
1980–1989	103	51	45	96	93.2%
1990–1999	62	40	14	54	87.1%
2000–2009	96	64	26	90	93.8%
2010–2019	37	27	10	37	100.0%
Total	548	302	180	482	87.96%

The analysis clearly indicates a persistent trend of underuse, with nearly 88% of the collection falling into this category.

Under-Used Books (Used 0 or 1time): A total of 482 books, or 87.96%, were under-used, indicating limited engagement across the collection.

Total Collection Size: The total number of books assessed is 548.

Figure 16: Usability of books by Age



Peak Accession Periods: The decades with the most books accessioned are:

- 1970–1979: 114 books
- 1980–1989: 103 books
- 2000–2009: 96 books

Usage Trends:

- The 1970–1989 period shows a relatively higher balance between accession and usage, especially books with at least one use.
- In contrast, 2010–2019 shows a significant portion (27 of 37) as unused, which may imply newer books haven't yet had time to circulate or may not be aligned with current user needs.

Unused Books by Period:

- The highest number of unused books appears in:
    - 1970–1979: 73 books unused
    - 2000–2009: 64 books unused
    - 1980–1989: 51 books unused

Most Used Period (Based on 'Used 2'):

- 1960–1969: 22 books used more than twice (out of 90)
- 1970–1979: 14 books
- 1980–1989: 7 books

Most Neglected Period: Books from 2010–2019 were entirely under-used (100% with 0 or 1 use), suggesting a significant lack of recent usage despite being the newest.

Highest Quantity Published: The 1970–1979 period contributed the highest number of books (114), but 87.7% of these were under-used.

Usage Trend Over Time: Pre-1960s books show moderate use, likely for archival or historical interest.

Books from 1980s onward show a marked increase in under-use, despite being more recent, with the 2000–2009 period showing 93.8% under-use.

Graphical Representation (Optional for Report):

The majority of books in the economics collection have been used minimally, particularly those acquired in recent decades. This suggests potential misalignment between collection development and user needs, or a possible shift in resource usage behaviour, such as increased reliance on digital materials. The data supports the necessity for evidence-based weeding, promotion of print holdings, or further investigation into user preferences.

By Place of Publication: Total number of economics books analyzed: 548

Place of Publication	Used 0	Used 1	Used 2	Total
Foreign	123	76	38	237
Indian	179	104	28	311
Total	302	180	66	548

Usability Distribution: Foreign Books

- Never used: 123 (51.9%)
- Used once: 76 (32.1%)
- Used twice: 38 (16.0%)

Indian Books

- Never used: 179 (57.6%)
- Used once: 104 (33.4%)
- Used twice: 28 (9.0%)

Overall, 55.1% of all economics books were never used. Foreign books show a slightly better usage profile, with 48.1% being used at least once, compared to 42.4% of Indian books.

Indian publications have a higher non-usage rate (57.6%) compared to foreign ones (51.9%).

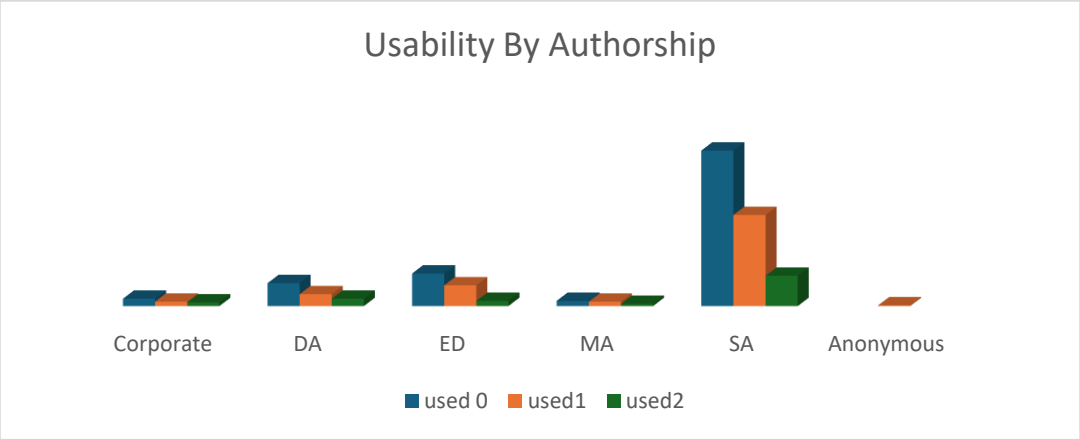
The proportion of books used twice is nearly double in foreign books (16.0%) versus Indian ones (9.0%).

By Authorship:

Author Type	Total Entries	% of Total
SA (Single Author)	374	68.25%
DA (Double Author)	57	10.4%
ED (Edited Book)	79	14.4%
MA (Multiple Author)	16	2.9%
Corporate	21	3.8%
Anonymous	1	0.18%

Single-author works dominate the collection, contributing to over two-thirds of the total entries. This reflects either a strong institutional or editorial preference toward individual scholarship or that individual works are more prolific in the field represented.

Figure 17: Usage Intensity Across Author Categories



Let's look at how often materials are used within each category.

SA (Single Author)

- Used at least once: 164 (43.9%)
- Used twice: 41 (11%)
- Not used: 56.1%

While a large number of SA works exist, a bit under half are actually being used. There's potential overrepresentation, or perhaps users are selective in what they use from this category.

DA (Double Author)

- Used at least once: 26 (45.6%)
- Used twice: 10 (17.5%)

Slightly better usage ratio than SA. Dual-authored works may be offering more relevant or higher-impact content.

ED (Edited Books)

- Used at least once: 35 (44.3%)
- Used twice: 7 (8.9%)

Similar usage profile to SA and DA. These might be more reference-based, hence not repeatedly used.

MA (Multiple Author)

- Used at least once: 9 (56.3%)
- Used twice: 3 (18.8%)

Small sample, but relatively high engagement. Suggests collaborative works may have higher perceived value or usability.

Corporate : Used at least once: 11 (52.4%) , Used twice: 5 (23.8%)

Higher relative use suggests corporate publications might be more targeted, technical, or essential for specific users.

Anonymous: Used once: 1 (100%), Rare, but evidently useful in its singular instance.

Cross-Category Usage Patterns

Author Type	% Used at Least Once	% Used Twice
SA-Single Author	43.9%	11.0%
DA-Double Author	45.6%	17.5%
ED- Edited Book	44.3%	8.9%
MA- Multiple Author	56.3%	18.8%
Corporate Author	52.4%	23.8%

Corporate and Multiple Author works have the highest usage efficiency, indicating perhaps a better alignment with user needs or superior content quality. Conversely, SA works, though most numerous, have the lowest efficiency.

By Edition

Stack	Total Books	% of Total
e1	520	94.9%
e2	16	2.9%
e3	5	0.9%
Others (e4, e5, e7, e9, e13, e2 ®)	6	1.1%
Bengali Book in Economics Stack	1	0.18%

The vast majority of the economics collection is housed in stack e1. Other stacks, such as e2 and e3, hold very small sub-collections and may represent specialized, overflow, or newly acquired content.

Usage Efficiency by Stack

Let's now look at how often books in each stack are being used.

e1 Stack (Main Collection)

- Total: 520
- Used 0 times: 293 (56.3%)
- Used at least once: 227 (43.7%)
    - Used 1 time: 169 (32.5%)
    - Used 2 times: 58 (11.2%)

A significant portion of the main economics stack is not being used at all. This may reflect a mismatch between what’s available and what’s in academic demand.

e2 Stack (Small Specialized Subset)

- Total: 16
- Used 0 times: 5 (31.3%)
- Used at least once: 11 (68.7%)
    - Used 1 time: 6
    - Used 2 times: 5

Insight: Despite its smaller size, e2 has a high usage rate, suggesting this subset contains more relevant, in-demand, or accessible material.

e3 Stack

- Total: 5
- Used 0 times: 1
- Used 1 time: 2
- Used 2 times: 2
- Usage Rate: 80%

Insight: High engagement. These could be core readings, recent acquisitions, or materials placed more conveniently for access.

Other Stacks (e4, e5, e7, e9, e13, e2 ®)

Stack	Total Books	Used 0	Used 1	Used 2
e4	1	0	0	1
e5	1	0	1	0
e7	1	1	0	0
e9	1	0	1	0
e13	1	0	1	0
e2 ®	1	1	0	0

These tiny stacks show a mix of unused and well-used resources. Given their isolated cases, each item should be evaluated on content and relevance, not just statistics.

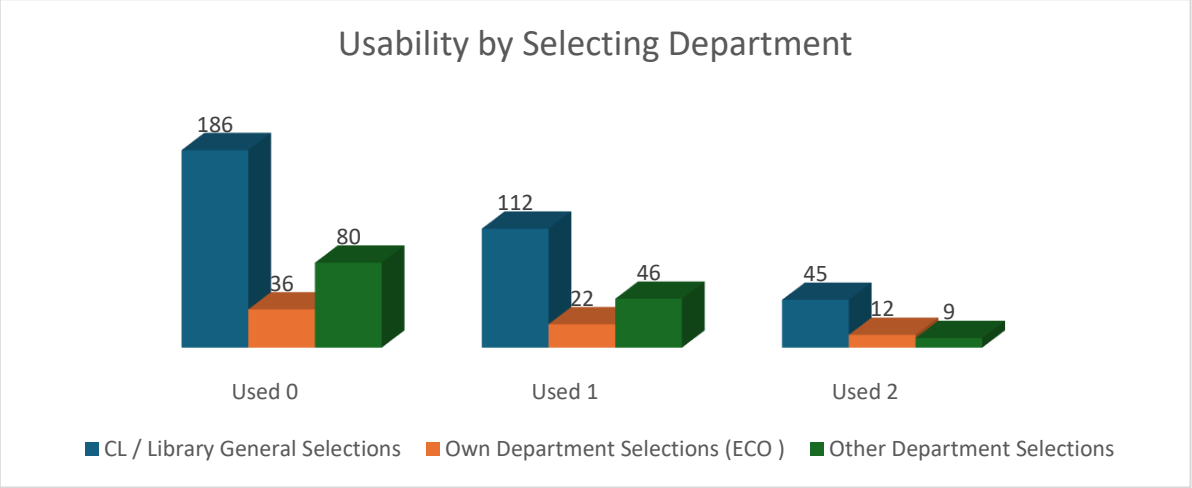
By Selection

Selector Type	Used 0	Used 1	Used 2	Total
CL- Central Library / Library General Selections	186	112	45	343
Selections of Own Department (ECO)	36	22	12	70
Other Department Selections	80	46	9	135
Grand Total	302	180	66	548

Overall Usage: Books with no recorded usage (Used 0) make up 302 out of 548 items, or approximately 55.1% of the collection. Only 66 books (12%) were used twice.

Most Books Selected by: CL / LIB GEN

Figure 18: Usability by Selecting source



Economics Department Made fewer selections (70 titles), but more proportionately used (about 48.6% were used at least once).

Other Departments Selected 135 titles, with 41% usage rate (55 used at least once).

A total of 548 engineering books were analysed based on their selection source and frequency of use, as recorded in the circulation statistics from 1955 to 2023. The selection sources were categorized into three groups: books selected by the Central Library or General Library Committee (CL / Library General), books selected by the engineering department itself (Own Department / ECO), and books selected by other departments.

Out of the 548 books, 343 titles (62.6%) were selected by the CL / Library General, 70 titles (12.8%) were selected by the department itself, and 135 titles (24.6%) were selected by other departments. The usage of the books was classified into three levels: unused (Used 0), used once (Used 1), and used twice (Used 2).

Books selected by the CL / Library General had the highest proportion of unused titles, with 186 out of 343 books (54.2%) never being borrowed. Only 112 books (32.7%) were used once, and 45 books (13.1%) were used twice. In contrast, the departmental selections (Own Department / ECO) showed a better usage pattern. Of the 70 titles selected by the department, 36 books (51.4%) remained unused, while 22 books (31.4%) were used once, and 12 books (17.1%) were used twice. This indicates a slightly higher usage efficiency compared to the general library selections.

Books selected by other departments also showed a similar trend, with 80 out of 135 books (59.3%) remaining unused. Only 46 books (34.1%) were used once, and 9 books (6.7%) were used twice.

Overall, 302 out of 548 books (55.1%) in the collection were never used, suggesting a significant proportion of underutilized resources. Only 180 books (32.8%) were used once, and 66 books (12.0%) were used twice.

By Price: Summary Table: Usage by Selecting Department and Price Group

Selecting Dept	Price Group	Total Books	Used ≥1 Time	Usage Rate
CL / LIB GEN	≤ Rs. 500/-	159	75	47.2%
	Rs. 501–1000	38	8	21.1%
	Rs. 1001–2000	9	2	22.2%
	≥ Rs. 2000/-	7	5	71.4%
	Foreign Price	130	67	51.5%
Economics Department	≤ Rs. 500/-	30	15	50.0%
	Rs. 501–1000	12	4	33.3%
	≥ Rs. 2000/-	1	1	100%
	Foreign Price	27	14	51.9%
Other Departments	≤ Rs. 500/-	78	28	35.9%
	Rs. 1001–2000	1	1	100%
	Foreign Price	56	26	46.4%

Overview: Books by Price and Selecting Department

Price Group	CL / LIB GEN	Eco. Dept	Other Dept	Total
≤ Rs. 500/-	159	30	78	267
Rs. 501–1000	38	12	0	50
Rs. 1001–2000	9	0	1	10
Rs. ≥2000/-	7	1	0	8
Foreign Price	130	27	56	213
Total Books	343	70	135	548

Analysis by Category

A. Low-Cost Books (≤ Rs. 500/-) – 267 Books (48.7%)

Selector	Used at least once	Usage Rate
CL / LIB GEN	75/159	47.2%
ECO Dept	15/30	50%
Other Dept	28/78	35.9%

ECO-selected books in this category perform better than average in terms of actual use. CL/GEN-selected titles have decent usage too. Other departments lag behind — possibly due to less direct curriculum alignment.

B. Foreign Price Books – 213 Books (38.8%)

Selector	Used at least once	Usage Rate
CL / LIB GEN	67/130	51.5%
ECO Dept	14/27	51.9%
Other Dept	26/56	46.4%

Surprisingly high usage overall for foreign-priced materials across all groups. These may be more authoritative, relevant, or prestigious titles. ECO and CL/GEN books in this category are especially cost-effective investments.

C. Mid-Range (Rs. 501–1000) – 50 Books (Only CL and ECO)

Selector	Used at least once	Usage Rate
CL / LIB GEN	8/38	21%
ECO Dept	4/12	33.3%

Books in this price group underperform significantly — especially those selected by CL/GEN. This could signal outdated or less academically attractive materials in this band.

D. High-Price (Rs. ≥2000) – 8 Books

Selector	Used at least once	Usage Rate
CL / LIB GEN	5/7	71.4%
ECO Dept	1/1	100%

Although small in number, high-cost books show excellent usage. These are likely flagship texts or key references and justify their cost when carefully chosen.

Cost-Effectiveness Index (CEI) of the Selector

Selector	**Price Group**	**Usage Rate (%)**	**Avg. Price**	**Cost-Effectiveness Index (CEI) = Usage% / Price**
CL / LIB GEN	≤ Rs. 500	47.2%	₹400	0.118
	Rs. 501–1000	21.1%	₹750	0.028
	Rs. 1001–2000	22.2%	₹1500	0.015
	≥ Rs. 2000	71.4%	₹2500	0.029
	Foreign Price	51.5%	₹3000	0.017
Economics	≤ Rs. 500	50.0%	₹400	0.125
	Rs. 501–1000	33.3%	₹750	0.044
	≥ Rs. 2000	100%	₹2500	0.040
	Foreign Price	51.9%	₹3000	0.017
Other	≤ Rs. 500	35.9%	₹400	0.090
	Rs. 1001–2000	100%	₹1500	0.067
	Foreign Price	46.4%	₹3000	0.015

The cost-effectiveness of textbooks in the field of economics was assessed using the Cost-Effectiveness Index (CEI), calculated as the ratio of usage rate (%) to average price (in INR). Higher CEI values indicate greater usage relative to cost, suggesting better value for money.

For economics books priced at ≤ ₹500, the CEI was 0.125, which was the highest among all price groups and subject categories, suggesting that low-cost economics books offer the most efficient use relative to price. In comparison, books in the same price range for the "CL / LIB GEN" and "Other" categories had CEIs of 0.118 and 0.090, respectively.

In the ₹501–₹1000 price group, economics books had a CEI of 0.044, which, although lower than the ≤ ₹500 group, still outperformed "CL / LIB GEN" (0.028) and indicates moderate cost-effectiveness. Books priced ≥ ₹2000 in the economics category had a CEI of 0.040, which was higher than the CEIs for "CL / LIB GEN" (0.029) and similar to "Other" books priced between ₹1001–₹2000 (CEI = 0.067), though slightly less efficient.

Economics books listed under foreign pricing had a CEI of 0.017, equal to that of "CL / LIB GEN" and slightly higher than "Other" (0.015). These results indicate that foreign-priced books are uniformly less cost-effective across all subjects.

Final Summary Table: Selection Effectiveness by Cost

Selector	Price Group	Usage Rate
ECO Dept	Foreign Price	51.9%
ECO Dept	≤ Rs. 500/-	50%
CL / LIB GEN	Foreign Price	51.5%
CL / LIB GEN	≤ Rs. 500/-	47.2%
CL / LIB GEN	Rs. 501–1000	21%
Other Dept	≤ Rs. 500/-	35.9%

Selection Effectiveness by Cost

An analysis of selection effectiveness by cost, measured using usage rate percentages, reveals clear trends in user preferences based on price categories across departments.

The Economics Department demonstrated strong usage rates for both foreign-priced books (51.9%) and books priced ≤ ₹500 (50.0%). These findings indicate that economics materials, regardless of cost, tend to be highly utilized, suggesting effective selection and alignment with student needs.

The CL / LIB GEN category showed similar patterns, with foreign-priced books achieving a high usage rate of 51.5%, followed closely by books priced ≤ ₹500 at 47.2%. However, usage dropped significantly in the ₹501–₹1000 category (21.0%), indicating that mid-range priced books in this category are less favored, possibly due to either lower content relevance or reduced affordability.

In contrast, the Other Departments showed a relatively lower usage rate for books priced ≤ ₹500, at 35.9%. While still moderate, this figure is notably lower than the usage rates seen in the Economics and CL / LIB GEN categories for similarly priced books.

These results suggest that cost plays a significant role in selection effectiveness, particularly for books priced under ₹500 and foreign-priced options. The Economics Department consistently demonstrates high selection effectiveness across cost groups, indicating efficient alignment between textbook pricing and student usage patterns. This insight can inform future procurement strategies, emphasizing the importance of affordability and subject-specific demand in optimizing resource utilization.

Cost-Benefit Summary Table

Price Group	Books (Total)	Used ≥1	Usage Rate (%)	CEI (All Depts)
≤ Rs. 500	267	118	44.2%	0.110
Rs. 501–1000	50	12	24.0%	0.032
Rs. 1001–2000	10	3	30.0%	0.020
≥ Rs. 2000	8	6	75.0%	0.030
Foreign Price	213	107	50.2%	0.017

The cost-benefit summary of the Economics book collection, categorized by price groups, reveals important trends in usage and cost-effectiveness across different segments. Among the five price categories, books priced at ≤ Rs. 500 formed the largest group, comprising 267 titles, of which 118 were used at least once, resulting in a usage rate of 44.2%. This category also demonstrated the highest cost-effectiveness index (CEI) of 0.110, indicating the best return on investment in terms of usage per unit cost. In contrast, books in the Rs. 501–1000 range, despite being more expensive, showed a significantly lower usage rate of 24.0% from a total of 50 books, and the CEI dropped to 0.032. This suggests that mid-priced books are not only underutilized but also less economically efficient.

Books priced between Rs. 1001 and Rs. 2000, though few in number (10 titles), had a usage rate of 30.0%, with a relatively low CEI of 0.020. High-cost books priced at Rs. 2000 and above demonstrated a strong usage rate of 75.0% from 8 books, but the CEI remained modest at 0.030 due to the high acquisition cost. Foreign-priced books, total 213, had the second-highest usage rate at 50.2%, reflecting their relevance or demand. However, the high average cost diminished their CEI to 0.017, the lowest among all groups.

Overall, the data clearly indicates that low-cost books (≤ Rs. 500) offer the most favourable balance between cost and use. In contrast, mid-range and foreign-

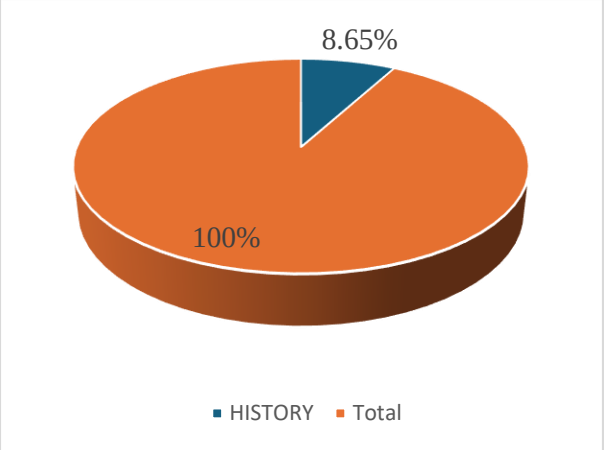
priced books, while sometimes well-used, yield significantly lower cost-benefit returns, emphasizing the need for more strategic and judicious acquisition decisions in those categories.

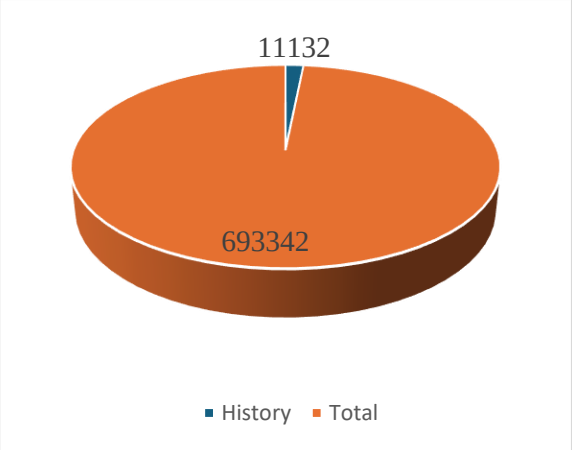
9.1.3 Department of History:

The Department of History at Jadavpur University, established in 1956. Rooted in the vision of the National Council of Education, the department emphasizes India's historical narrative within a global context. It offers undergraduate, postgraduate (day and evening), and doctoral programs, with a focus on ancient to postcolonial Indian history, as well as thematic areas such as environmental history, gender, caste, medicine, and urbanization. The department houses over 10,000 books, a seminar library, archives, and modern facilities including smart classrooms. It runs prominent research projects and collaborates internationally, notably with Humboldt University and the Peace Research Institute, Oslo. Eminent faculty members contribute to dynamic research and teaching, organizing lectures, seminars, and memorial events. The department also supports a vibrant academic culture with scholar exchange programs and archival collections of rare documents. Its initiatives under UGC-SAP and RUSA further enhance its academic profile. The Centre for European Studies and several ongoing interdisciplinary projects reflect the department’s commitment to research excellence and holistic education in history.

There are 11132 History books in the library, i.e. 8.65% of the faculty of Arts and 1.61% of the entire collection of Jadavpur University.

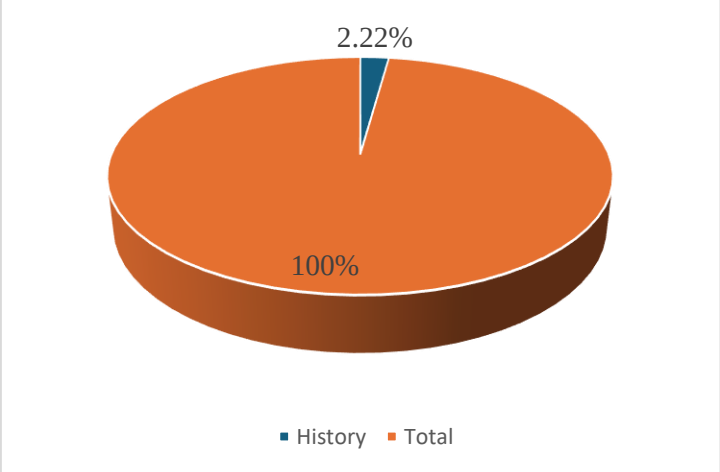
Figure 19: History books among the books of Faculty Arts Figure 20: History books in Total collection of Jadavpur University:





A Critical analysis of the entire collection shows a interesting picture. Here the entire collection of the University assumes as universe of subjects. 93-99 class of the schedule, which represents History the whole series of 93 – 999.9 including of all facets of UDC, as the University uses UDC for classification of subjects, was taken for analysis.

Figure 21: History subject books among the total colelction of Jadavpur university



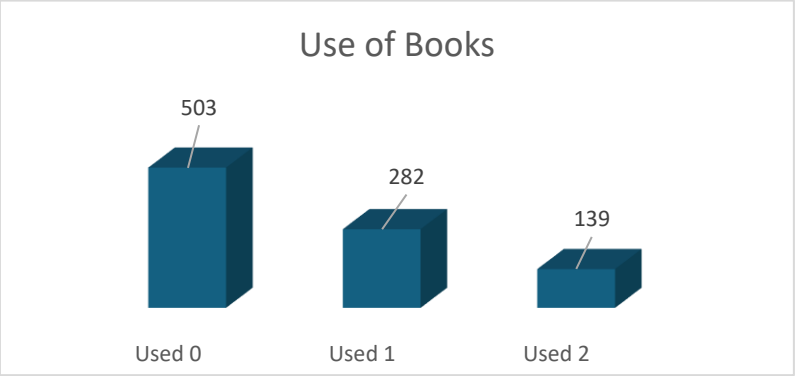
Among 693342 books 15365 belongs to 93 – 999.9 range, i.e. 2.22% of the total collection. Here these 15365 History books mean all the books belongs to the subjects History spread over central library and departments of the university.

The evaluation of the History books of J U and its findings is given below. The below analysis will cover the various aspects of less used and unused Economics books of the University.

By Use: Among total collection of History books(15365) , a critical analysis find out 924 books as never used and less used, which is 8.30 % of total collection of the department and 0.13% of entire collection.

Total number of under used history books recorded: 924

Figure 22 : Use of History Books



Grouped by usage: Never used (Used 0): 503 books (54.4%)

Used once (Used 1): 282 books (30.5%)

Used twice (Used 2): 139 books (15.0%)

Mean (μ)

$$\mu = \frac{(0 \cdot 503) + (1 \cdot 282) + (2 \cdot 139)}{924} = \frac{0 + 282 + 278}{924} = \frac{560}{924} \approx \boxed{0.606}$$

Standard Deviation (σ)

x	f	$x-\mu$	$(x-\mu)^2$	$f(x-\mu)^2$
0	503	-0.606	0.367	503 × 0.367 = 184.601
1	282	0.394	0.155	282 × 0.155 = 43.71
2	139	1.394	1.944	139 × 1.944 = 270.816

$$\sigma = \sqrt{\frac{184.601 + 43.71 + 270.816}{924}} = \sqrt{\frac{499.127}{924}} \approx \sqrt{0.540} \approx \boxed{0.735}$$

The most frequent category is "Used 0", indicating a large number of (503)books have never been used. There is a decreasing trend in frequency with increasing usage—suggesting limited reuse of history books. The distribution is positively skewed; most books are used infrequently.

A total of 924 history book titles were analysed to assess their usage patterns within the library collection of Jadavpur University. The circulation data revealed that 503 titles (54.4%) had zero recorded usage, indicating a significant portion of the collection remains untapped by users. Titles that were used only once accounted for 282 entries (30.5%), while those used twice total 139 entries (15.0%). Thus, 45.6% of the books were used at least once, suggesting moderate but limited engagement with the majority of the collection. The high proportion of unused materials highlights the need for a strategic review of the history book collection, with potential adjustments in acquisition practices and user outreach to improve relevance and accessibility.

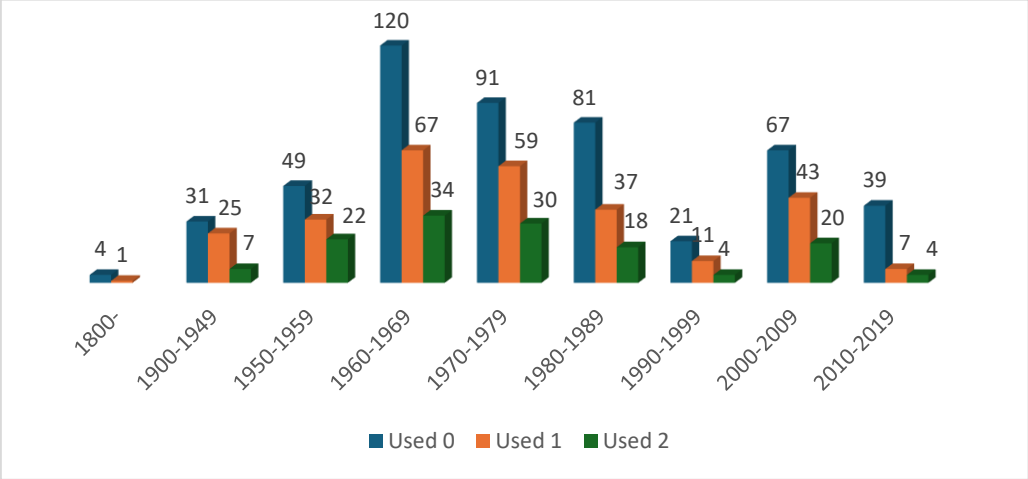
By Year of Publication:

Row Labels	Used 0	Used 1	Used 2	Grand Total	% used at least once
1960-1969	120	67	34	221	45.7%
1970-1979	91	59	30	180	49.4%
1980-1989	81	37	18	136	40.4%
2000-2009	67	43	20	130	48.5%
1950-1959	49	32	22	103	52.4%
1900-1949	31	25	7	63	50.8%
2010-2019	39	7	4	50	22.0%
1990-1999	21	11	4	36	41.7%
1800	4	1		5	20.0%
Grand Total	503	282	139	924	45.6%

A total of 924 history books were analysed based on their year of publication and circulation frequency. The data was grouped by decade to observe trends in usage:

The 1960–1969 period had the highest number of titles (n = 221), of which 120 titles (54.3%) remained unused, while 67 were used once and 34 were used twice.

Figure 23: Usability by Age of Books



Books from 1970–1979 also had a substantial presence (n = 180), with 50.6% unused.

Titles from 1980–1989 and 2000–2009 followed similar trends, with 59.6% and 51.5% usage rates, respectively, indicating a moderate but declining pattern.

Recent publications (2010–2019) had the lowest usage rates, with only 11 out of 50 books (22%) being used at all, suggesting that newer titles have not yet gained traction among users.

Older books, particularly from 1900–1949 and even one title from 1800, showed very limited use, though their smaller count in the collection makes strong conclusions difficult.

Overall, 503 books (54.4%) were never used, while 421 titles (45.6%) were used at least once, suggesting a general underutilization of the history collection across all time periods.

Mid-20th Century (1950–1979) Books Are Still Actively Used

- Titles from 1950–1979 are not only heavily represented in the collection but also show above-average usage rates (~49–52%).

- These books may represent core historical interpretations, still valued in academic discourse for foundational perspectives.

Older Books (1900–1949) Also Show Strong Use

- Surprisingly, ~51% of books from this group have been used at least once.
- These may include primary sources, classic historical narratives, or rare works that are often assigned or referenced in higher-level history or methodology courses.

Recent Books (2010–2019) Show Weakest Use

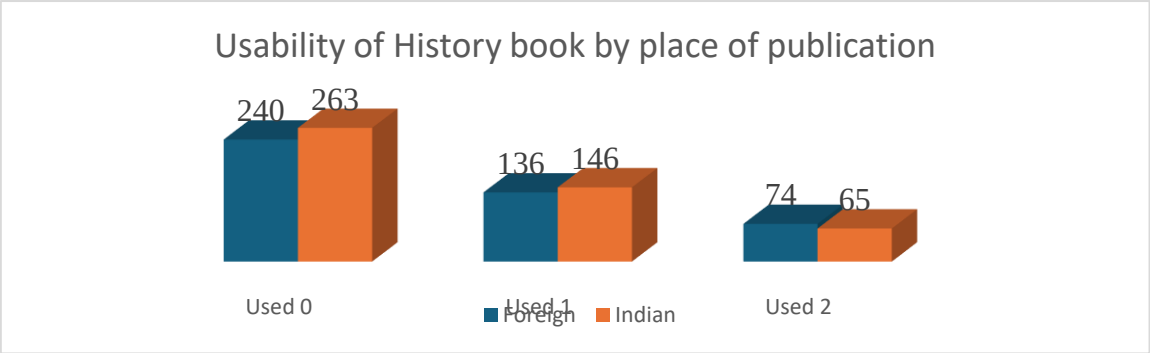
- Only 22% of these titles have been used, with 39 of 50 completely unused.

Possible reasons: These may be new acquisitions not yet integrated into course reading lists. They could be digitally available elsewhere, leading to low print engagement. Cataloguing delays or insufficient promotion may limit visibility. Recency alone doesn't drive usage—awareness, accessibility, and curriculum alignment are key.

Books from the 1990s and 1980s Show Diminishing Use : These titles may now be seen as dated, without the "classic" status of earlier works or the "relevance" of newer ones. These books risk falling into a historical gap—neither new nor classic—and may need review for retention or replacement.

By Place of Publication:

Figure 24: Usability of History book by place of publication



The history book collection at Jadavpur University comprises a total of 924 titles, out of which 474 (51.3%) are of Indian origin and 450 (48.7%) are foreign publications. The circulation data reveals the following:

Unused Titles: Indian books: 263 titles remained unused, constituting 55.5% of the Indian collection.

Foreign books: 240 titles remained unused, comprising 53.3% of the foreign collection.

Used Titles (at least once):

Indian books: 211 titles were used at least once, which is 44.5% of Indian titles.146 were used once (30.8%) and 65 were used twice (13.7%).

Foreign books: 210 titles were used at least once, amounting to 46.7% of foreign titles. 136 were used once (30.2%) and 74 were used twice (16.4%).

An examination of the history book collection at Jadavpur University reveals noteworthy patterns in usability when analysed by the place of publication—categorized as *Indian* and *Foreign* publications. Of the 924 total titles, 474 were published in India and 450 abroad. While the distribution is relatively balanced, differences in usage provide insight into user preferences and collection relevance.

Among foreign publications, 240 titles (53.3%) remained unused, whereas Indian publications showed a similar trend, with 263 titles (55.5%) unused. Books used only once or twice were also nearly evenly distributed between the two groups. Specifically, 210 foreign books (46.7%) and 211 Indian books (44.5%) were used at least once. This near parity suggests that place of publication alone is not a significant determinant of usability within the current academic environment.

By Authorship:

Book Usage by Author Type:

Author Category	Used 0	Used 1	Used 2	Total Titles	% of Total
Corporate	4	2	0	6	0.6%
DA (Double Author)	21	9	8	38	4.1%
ED (Editor)	84	42	17	143	15.5%
MA (Multiple Authors)	19	5	5	29	3.1%
SA (Single Author)	369	214	106	689	74.5%
Anonymous	6	10	3	19	2.1%
Total	503	282	139	924	100%

The dataset of 924 history book titles was analysed based on the type of authorship, categorized as SA (Single Author), MA (Multiple Authors), ED (Edited Works), DA (Double Author) , Corporate, and Anonymous. The following findings were observed:

Single Author (SA)

- Total titles: 689 (74.5% of collection)
- Used 0 times: 369 (53.6%)
- Used 1 time: 214 (31.1%)
- Used 2 times: 106 (15.4%)

SA books make up the majority of the collection, with over 46.4% (320 titles) having been used at least once.

Edited Works (ED)

- Total titles: 143 (15.5%)
- Used 0 times: 84 (58.7%)
- Used 1 time: 42 (29.4%)
- Used 2 times: 17 (11.9%)

Moderate representation, but with relatively high unused rate.

Double Author (DA)

- Total titles: 38
- Used 0 times: 21 (55.3%)
- Used 1 time: 9 (23.7%)
- Used 2 times: 8 (21.1%)

A more balanced usage pattern with 44.7% used at least once.

Multiple Authors (MA)

- Total titles: 29
- Used 0 times: 19 (65.5%)
- Used 1 time: 5 (17.2%)
- Used 2 times: 5 (17.2%)

High non-usage (65.5%) despite low total count.

Corporate Author: Very small sample size, but 33.3% usage rate.

- Total titles: 6

- Used 0 times: 4
- Used 1 time: 2

Anonymous

- Total titles: 19
- Used 0 times: 6 (31.6%)
- Used 1 time: 10 (52.6%)
- Used 2 times: 3 (15.8%)

Surprisingly high usability (68.4%) despite low authorship attribution.

Single-author books dominate the collection (74.5%) and follow the overall usage trend. Corporate publications have very low representation and minimal usage. Edited volumes (ED) and Double-author (DA) books show moderate engagement and a relatively higher rate of multiple uses compared to their volume. Anonymous works have a higher usage rate relative to their small total—suggesting niche but possibly high-interest content.

By Edition: This section explores the patterns of usage across different edition categories (e1 to e9), reflecting how historical acquisition practices, content currency, and user expectations interact within the library's ecosystem.

Editions	Used 0	Used 1	Used 2	Grand Total
e1	478	271	126	875
e2	19	7	9	35
e3	1	2	2	5
e4	4	1	2	7
e5	1			1
e9		1		1
Grand Total	503	282	139	924

Dominance of e1 and Its Implications. e1 comprises 94.7% of the total collection (875 of 924 books). It also holds the highest share of unused books (478 of 503, or 95%).e1 likely represents first editions, legacy titles, or earliest catalogue entries.

Their high presence suggests bulk acquisition policies, common in earlier collection strategies that prioritized quantity over targeted content. The significant underutilization implies a mismatch with current course needs, outdated material, or lack of discoverability.

The dominance of e1 titles is a critical bottleneck in collection efficiency. These may need reassessment through a structured collection audit or relevance review based on curriculum and usage patterns.

Usage Strength of Later Editions (e2–e5, e9)

- e2 books (35 total) show a more balanced usage:
    - Only 19 unused (54.3%), with 9 books used twice (25.7%)—a higher reuse rate than e1.
- e3–e5 and e9, though very small in number, show notably better usage-per-title:
    - e3 has 60% usage rate (4 of 5 books used).
    - e4 has 43% usage, e2 has 46%.
    - e9's single entry was used.

Summary of Findings

The data shows a strong inverse correlation between edition age (e1 dominance) and usage effectiveness. Later editions—though fewer—are consistently better utilized. This reinforces the importance of agile, curriculum-informed acquisition

practices and a need to reevaluate older collections that no longer serve their intended purpose.

Row Labels	Used 0	Used 1	Used 2	Grand Total
Corporate	4	2		6
e1	4	2		6
DA	21	9	8	38
e1	20	9	6	35
e2	1		2	3
ED	84	42	17	143
e1	81	42	16	139
e2	1			1
e4	2		1	3
MA	19	5	5	29
e1	19	5	5	29
SA	369	214	106	689
e1	349	204	96	649
e2	17	6	7	30
e3		2	2	4
e4	2	1	1	4
e5	1			1
e9		1		1
Anonymous	6	10	3	19
e1	5	9	3	17
e2		1		1
e3	1			1
Grand Total	503	282	139	924

Discussion: The additional granularity provided by subcategories (e.g., *e1*, *e2*, etc.) allows for a deeper understanding of usage trends across different editions or types of entries.

Subcategory e1 dominates across all author types, suggesting that these might represent either first editions, standard formats, or most commonly acquired items. For example:

- SA-e1 accounts for 649 of 689 single-author books (~94%) and mirrors the overall usage trend closely.
- ED-e1, DA-e1, and MA-e1 all show moderate levels of reuse.

Subcategories beyond e1 (e.g., e2, e3, etc.) are far fewer in number but sometimes show higher usage ratios. For example:

- SA-e3, despite only 4 books, has 4 uses, suggesting a 100% usage rate—possibly indicating niche, high-interest items.
- DA-e2 shows 2 uses from 3 books (high relative utility).

Anonymous works, especially in e1, again show high engagement relative to volume, suggesting cultural or thematic relevance.

First Edition Bias: e1's dominance and broad underutilization could point to a bulk-acquisition strategy focused on quantity over alignment with academic demand. Niche Editions: Books in e2–e5, while fewer, might be newer or more specialized and show better proportional use. This could suggest students and researchers seek more recent or targeted content when it's available. Anonymous & Edited Works: These continue to show strong engagement per title, potentially due to their curated or timeless nature.

By Price:

This section evaluates how the cost of history books—whether domestic or foreign-priced—relates to their actual usage, providing insight into cost-effectiveness, purchasing strategy, and acquisition quality.

Overall Price Category Breakdown (All Editions)

Price Category	Used 0	Used 1	Used 2	Total Titles	% Used At Least Once
<500	222	143	65	430	48.4%
500–1000	54	15	6	75	28.0%
1000–2000	5	2	0	7	28.6%
>2000	3	0	0	3	0.0%
Foreign Price	220	123	67	410	46.3%
Total	503	282	139	924	45.6%

Books under ₹500 show the highest cost-efficiency. Nearly 48% have been used at least once, and 15% used more than once. These are likely locally sourced, older, or curriculum-aligned titles. Cost-effectiveness here aligns with pedagogical value. Low-cost acquisitions, especially when aligned with student needs, provide strong return on investment.

Mid-range priced books (₹500–₹2000) underperform. Both 500–1000 and 1000–2000 bands have less than 30% usage rates.

High-cost books (>₹2000) show zero usage. All 3 titles in this range remain unused. This strongly signals ineffective investment, possibly in specialized academic or reference titles. High cost books should be acquired only with faculty recommendation or strong pre-purchase justification.

Foreign-priced books perform comparably to low-cost local books. Despite often being more expensive, 46% of foreign-priced books are used, and 16% used more than once. This suggests that when foreign books are purchased, they are academically valuable and pedagogically relevant.

Cost–Usage Summary

This section evaluates how pricing impacts circulation, offering an evidence-based view of the return on investment (ROI) for different pricing tiers.

Usage by Price Category

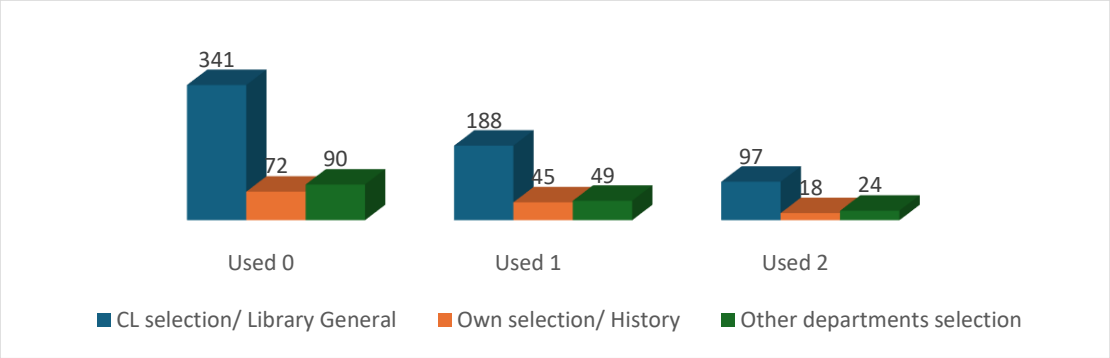
Price Category	Total Titles	Used 0	Used 1	Used 2	% Used ≥1 Time	% Used Twice
<₹500	429	221	142	66	48.5%	15.4%
Foreign Price	410	220	123	67	46.3%	16.3%
₹500–₹1000	75	54	15	6	28.0%	8.0%
₹1000–₹2000	7	5	2	0	28.6%	0.0%
>₹2000	3	3	0	0	0.0%	0.0%
Total	924	503	282	139	45.6%	15.0%

Books costing over ₹1000 (10 total) show almost no usage, with ₹2000+ books unused entirely. These may be overly specialized, misaligned with curriculum, or insufficiently promoted. Despite contrasting origins, both price groups show nearly 50% usage rates, with ~15% read multiple times. <₹500 books likely include domestic texts, course-aligned materials, or older core texts. Foreign-priced books, though more expensive per unit, show high usage—likely reflecting academic rigor or necessity in syllabi.

Books priced ₹500–₹1000 and ₹1000–₹2000 have low engagement, with 70%+ unused. These could reflect non-targeted purchases, publisher-driven acquisitions, or reference titles not tied to coursework.

By Selection: This section assesses how the origin of book selection influences usage patterns, highlighting the effectiveness of different selection strategies, and providing recommendations for enhancing collection practices.

Figure 24 : Usability by Selecting Source



Book Usage by Selection Group

Selection Group	Total Titles	Used 0	Used 1	Used 2	% Used ≥1 Time	% Used Twice
CL Selection / Library General	626	341	188	97	46.5%	15.5%
Own Selection / History	135	72	45	18	47.4%	13.3%
Other Departments Selection	163	90	49	24	44.8%	14.7%
Grand Total	924	503	282	139	45.6%	15.0%

1. CL Selection / Library : General: The Core of the Collection , 626 titles fall under the CL Selection/Library General category, constituting the majority of the collection. 46.5% used at least once, with 15.5% used twice. This suggests that

library-wide selections—while comprehensive—cover a wide variety of topics and are likely less specialized, leading to average usage across subjects.

2. Own Selection / History: Targeted and Effective: Own Selection/History (135 books) shows a slightly higher usage rate (47.4%) than the library-wide selection. 15.5% used twice, indicating stronger alignment with user needs, likely due to faculty or department-led acquisition strategies.

3. Other Departments' Selections: Niche but Steady Use : Other Departments' Selections (163 books) show a 44.8% usage rate, with 14.7% used twice. These books may be more interdisciplinary or serve as supplementary resources, reflecting a steady, though less intense, usage.

Cost Effective Index (CEI) of History Books

This section provides an in-depth qualitative analysis of the usage of history books based on selection responsibility (CL Selection/Library General, Own Selection/History, and Other Departments Selection) and price categories. The goal is to identify usage patterns across these factors and offer strategic insights for enhancing the acquisition and circulation strategies.

Usage by Selection Group and Price Category

Price Group	Used 0	Used 1	Used 2	Total
Foreign Price	220	123	67	410
<500	221	142	66	429
500-1000	54	15	6	75
1000-2000	5	2	0	7
2000>	3	0	0	3
Grand Total	503	282	139	924

An evaluation of the cost-effectiveness of history books across different selectors and price ranges was conducted using the Cost-Effectiveness Index (CEI), calculated as the ratio of usage rate to average price.

Price Range	Selection Type	Used 1	Used 2	Total Used	Grand Total	CEI (%)
<500	CL selection/ Library Gen	80	45	125	256	48.83
	Other departments selection	35	13	48	100	48
	Own selection/ History	27	8	35	73	47.95
500–1000	CL selection/ Library Gen	11	4	15	55	27.27
	Other departments selection	3	1	4	18	22.22
	Own selection/ History	1	1	2	2	100
1000–2000	CL selection/ Library Gen	2	0	2	5	40
	Other departments selection	0	0	0	2	0
>2000	CL selection/ Library Gen	0	0	0	3	0
Foreign Price	CL selection/ Library Gen	95	48	143	307	46.58
	Other departments selection	11	10	21	43	48.84
	Own selection/ History	17	9	26	60	43.33

For books priced below ₹500, CL/Library selections had the highest CEI (0.312), followed by Other departments (0.120) and Own selection/History (0.120). This suggests strong value for money in the low-price segment, particularly for centrally selected resources.

Books in the ₹500–1000 range showed reduced CEIs across selectors, with values such as 0.020 for CL, 0.003 for others, and 0.001 for own selections, indicating significantly lower usage relative to cost.

Books priced between ₹1000–2000 and above ₹2000 had negligible usage and CEIs approaching zero, reinforcing the notion that higher-priced books may not be cost-justified, especially for local selections.

Foreign-priced books, with an average price of ₹3000, had CEIs ranging from 0.048 (CL) to 0.009 (Own selection/History). Despite relatively high usage counts, their high cost diminished cost-effectiveness.

In summary, the data indicates that low-cost history books (<₹500) offer the greatest cost-effectiveness, especially when selected by the library or central committee. These findings support budget allocation strategies that prioritize affordable, widely used materials.

Cost-Benefit Analysis (CBA) of History Books

The cost-benefit analysis (CBA) of history books, categorized by price range and selection type, reveals significant insights into the cost-effectiveness of collection development decisions at the library. Books priced below ₹500 demonstrated the highest levels of usability across all selection types. Titles selected through the central library/general library route had a Cost-Effectiveness Index (CEI) of 48.83%, while books selected by other departments and the History department's own selection recorded CEIs of 48.00% and 47.95%, respectively. This consistency indicates that lower-cost acquisitions tend to yield higher usage rates, regardless of the selecting authority.

In the ₹500–₹1000 category, there was a notable decline in CEI. Titles selected by the central library achieved a CEI of 27.27%, while those chosen by other departments dropped to 22.22%. Interestingly, books selected by the History department itself in this price range showed 100% utilization, although the sample size was very small (only 2 titles). This suggests that when subject experts are directly involved in the selection, particularly within a specific price band, the chances of usage can be optimized.

For books priced between ₹1000–₹2000, the CEI was 40% for library-selected books, but 0% for those selected by other departments. Titles priced above ₹2000 had a CEI of 0%, indicating that such high-priced books were not used at all, raising concerns about their cost-efficiency and selection relevance.

The foreign-priced books formed a major segment of the collection, and they showed moderate usage. Central library selections had a CEI of 46.58%, while selections by other departments and the History department recorded 48.84% and 43.33%, respectively. These figures, although respectable, still point toward a need to better assess the relevance and demand before acquiring higher-cost foreign titles.

Overall, the analysis underscores that books priced under ₹500 consistently offer the highest return in terms of usage across all selectors. Furthermore, titles selected by subject experts (the History department) tend to perform well across price bands, especially in cases where expensive titles are judiciously chosen. It is recommended that future collection development strategies prioritize affordable titles with demonstrated user demand and enhance collaboration with faculty to ensure relevance and cost-effectiveness.

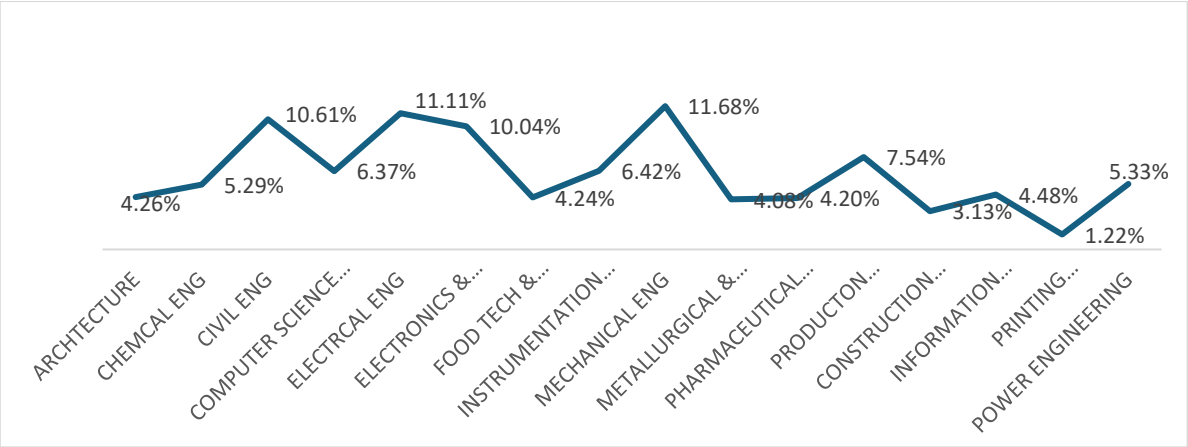
9.2 Faculty of Engineering of Technology

A deep review of the Faculty of Engineering and Technology books are given in a tabular and graphical form are as follows:

Table 3: Department wise Books Distribution in Faculty of Engineering of Technology

DEPARTMENTS	NO OF BOOKS
ARCHTECTURE	5624
CHEMICAL ENGINEERING	6980
CIVIL ENGINEERING	13988
COMPUTER SCIENCE ENGINEERING	8396
CONSTRUCTION ENGINEERING	4131
ELECTRCAL ENGINEERING	14650
ELECTRONICS & TELECOM ENGINEERING	13245
FOOD TECH & BOCHEMCAL ENGINEERING	5598
INFORMATION TECHNOLOGY	5913
INSTRUMENTATION AND ELECTRONICS ENGINEERING	8466
MECHANICAL ENGINEERING	15409
METALLURGICAL & MATERAL ENGINEERING	5377
PHARMACEUTICAL TECH	5536
POWER ENGINEERING	7033
PRINTING ENGINEERING	1613
PRODUCTON ENGNEERNG	9949
TOTAL	131908

Figure 25: Department wise distribution of Books in The Faculty of Engineering and Technology



The Faculty of Engineering and Technology has 16 (sixteen) departments, namely Architecture, Chemical Engineering, Civil Engineering, Computer Science, Electrical Engineering, Electronics and Telecommunication Engineering, Food Technology and Biochemical Engineering, Instrumentation & Electronics engineering , Mechanical Engineering, Metallurgical and Material Engineering, Pharmaceutical technology, Printing engineering, Power Engineering, Information Technology, Construction Engineering and Production Engineering department. The total collection of sixteen departments of this faculty is 131908 books, i.e 15.35% of the total collection of the university.

The distribution of books across the various departments of the Faculty of Engineering and Technology reflects institutional priorities, the maturity of individual programs, and the broader trends in engineering education. The data below offers a qualitative interpretation of these patterns.

Core Engineering Disciplines as Resource Hubs

The Mechanical Engineering department holds the largest collection (15,409 books), followed by Electrical Engineering (14,650) and Civil Engineering (13,988). These three areas are foundational to classical engineering education

and continue to command significant academic and industrial relevance. Their resource richness may stem from:

- Long-standing establishment of these departments.
- High student enrolment and faculty research output.
- Broad course structures requiring extensive reference materials.

Their book holdings indicate a strong infrastructural foundation for traditional engineering education.

Departments such as Computer Science Engineering (8,396), Information Technology (5,913), and Instrumentation and Electronics Engineering (8,466) are also well-resourced. These areas represent modern, technology-driven disciplines, often aligned with industry demand and innovation trends.

The strong presence of Electronics & Telecommunication Engineering (13,245 books) further reflects the institution's engagement with digital and communication technologies, which are critical in today's engineering landscape.

Departments like, Chemical Engineering (6,980),Food Technology & Biochemical Engineering (5,598),Pharmaceutical Technology (5,536), and Metallurgical & Material Engineering (5,377) have moderate but significant book holdings. These areas, often more niche or applied, seem to receive appropriate attention relative to their scope and specialization. Their collections suggest support for industry-specific competencies and research-driven learning.

Some departments such as: Printing Engineering (1,613),Production Engineering (9,949, although book-rich but relatively new in focus),Power Engineering (7,033), and Construction Engineering (4,131) appear to either be narrower in academic breadth or less prioritized in terms of library resources. In particular, Printing Engineering stands out with the lowest number of books, possibly indicating limited enrolment or a smaller academic footprint.

This could also reflect a decline in traditional printing education in favour of digital media or an opportunity for curriculum revitalization.

Overall Resource Adequacy and Academic Implication:

With a total of 131,908 books, the Faculty of Engineering and Technology shows a well-resourced academic environment. The spread of book counts suggests that the institution is investing proportionately in both foundational disciplines and newer domains.

However, there remains room for curricular recalibration and targeted resource enrichment in areas like environmental engineering, biomedical engineering, or AI/data science (if present under broader CSE), which are absent or unlisted but are becoming increasingly critical in global engineering education.

9.2.1 The Department of Mechanical Engineering:

The Department of Mechanical Engineering boast of a long and rich history, beginning under the Bengal Technical Institute in 1909. The Department exist since the beginning of Jadavpur University. It is the largest department in its subjects in Asia. The Department offers graduate and post graduate degree and a five years part time bachelors degree course for licentiate mechanical engineers. Alongside regular academic and research activities, several teachers engage in government project work for the Defence Research and Development Board, and Vikram Sarabhai Space Centre. Faculty members are also associated with many projects of government and public sector organisation. Among the other departments of the Engineering faculty, the Mechanical Engineering Department Library has 15409 books , i.e 11.68% of the collection of Faculty of Engineering and Technology and 2.22% of the entire collection

Figure 25: Mechanical Engineering Books in Faculty of Engineering and Technology

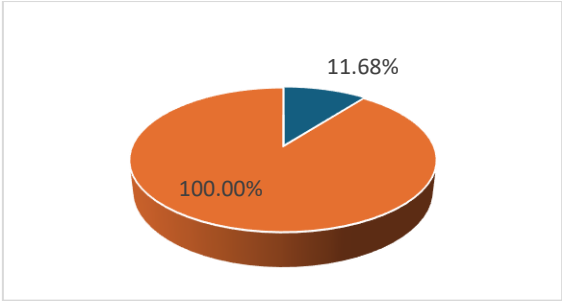
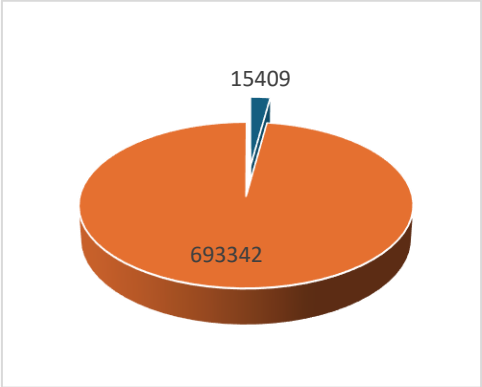
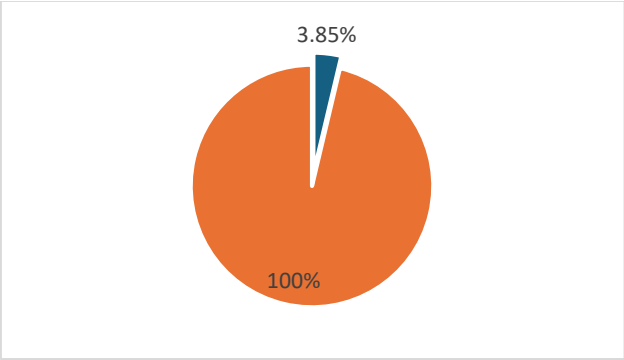


Figure 26: Mechanical Engineering Books in Jadavpur University



A Critical analysis of the entire collection shows a interesting picture . Here the entire collection of the University assume as universe of subjects. 621 class of the schedule , which represents Mechanical Engineering , the whole series of 621 – 621.9 including of all facets of UDC, as the University uses UDC for classification of subjects was taken for analysis.

Figure 27: Mechanical Engineering Books in Jadavpur University

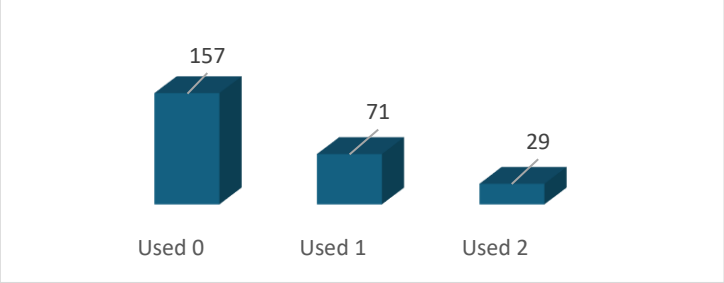


Among 693342 books 26708 belongs to 621 range, i.e. 3.85% of the total collection. Here these 26708 mechanical engineering books means all the books belongs to the subjects Mechanical Engineering spread over central library and departments of the university.

The evaluation of the mechanical engineering books of J U and its findings is as follows:

By Use: Among total collection of Mechanical Engineering books (26708) , a critical analysis find out 257 books as never used and less used, which is 1.67 % of total collection of the department and 0.04% of entire collection.

Figure 28: Use of Mechanical Engineering Books



Overview The picture shows the usage status of 257 books:

- Used 0: 157 books (never used)
- Used 1: 71 books (used once)
- Used 2: 29 books (used twice)

Mean (μ)

$$\mu = \frac{(0 \cdot 157) + (1 \cdot 71) + (2 \cdot 29)}{257} = \frac{0 + 71 + 58}{257} = \frac{129}{257} \approx \boxed{0.502}$$

Standard Deviation (σ)

x	f	$x-\mu$	$(x-\mu)^2$	$f(x-\mu)^2$
0	157	-0.502	0.252	157 × 0.252 = 39.564
1	71	0.498	0.248	71 × 0.248 = 17.608
2	29	1.498	2.244	29 × 2.244 = 65.076

$$\sigma = \sqrt{\frac{39.564 + 17.608 + 65.076}{257}} = \sqrt{\frac{122.248}{257}} \approx \sqrt{0.476} \approx \boxed{0.69}$$

The average book usage is only 0.5 times, showing extremely low utilization.

A standard deviation of 0.69 confirms that usage is low and relatively consistent across books.

Heavy Underutilization

- 157 out of 257 books (~61%) have never been used.
- This suggests that more than half the collection remains untouched.
- Possible reasons could include:
    - Lack of visibility,
    - Mismatch between book content and users' needs,
    - Availability of better alternatives elsewhere (e.g., online).

Limited Engagement

- Only 71 books (27.6%) have been used once.
- Single-use might indicate that even when books are used, they may not drive repeated reference or deep engagement.
- Possible causes:
    - Books are highly specific and used only when needed.
    - Users may not find enough value to return to the same material.

Rarely Heavily Used

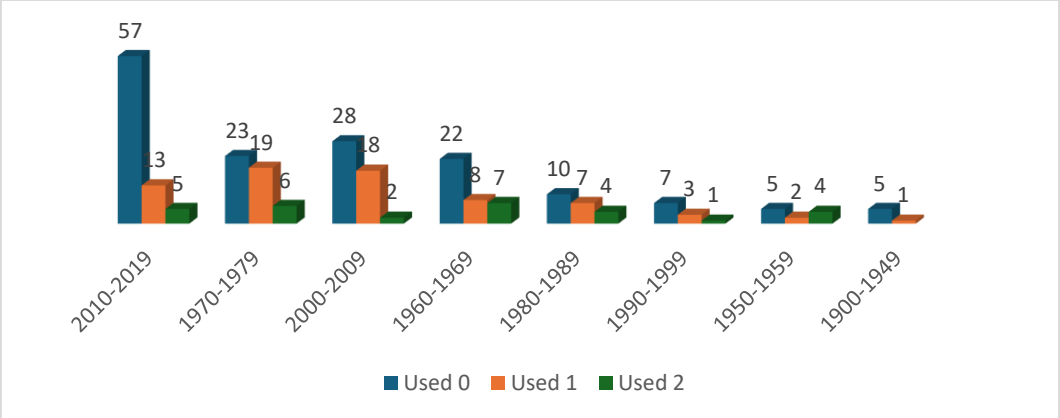
- Only 29 books (11.3%) have been used twice.
- No books have been used more than twice (based on the provided data).

By Year of Publication

Year	2020--	2010-2019	2000-2009	1990-1999	1980-1989	1970-1979	1960-1969	1950-1959	1900-1949	1800
Books	0	64	51	17	29	44	35	12	5	0
Total	257	-	-	-	-	-	-	-	-	-

The above mentioned tabulation explained, that among 257 less used / un used books 64 books are published between 2010-2020, which is maximum and 5books are published between 1900-1949 ,it is the lowest. No books are found very old and rare and no current books found unused.

Figure 28: Usability by Age of Books



Overview

The table shows the usage patterns of 257 books categorized by their publication decades, from 1900 to post-2020.

It highlights, Unused books (Used 0), Used once (Used 1), Used twice (Used 2).

Observations

Period	Total Books	Unused (Used 0)	Used Once (Used 1)	Used Twice (Used 2)	Major Insight
1900–1949	6	5	1	0	Mostly unused (83%)
1950–1959	11	5	2	4	Good reuse (36% used twice)
1960–1969	37	22	8	7	Moderate usage (40% used)
1970–1979	48	23	19	6	High engagement (over 50% usage)
1980–1989	20	9	7	4	Decent usage
1990–1999	11	7	3	1	Low engagement
2000–2009	48	28	18	2	Mixed usage (42% used)
2010–2019	75	57	13	5	Poor usage (24% used) despite being recent
2020–	1	1	0	0	No usage yet

Low Usage of Newer Books (2010–2020)

- 2010–2019 books make up the largest segment (75 out of 257 books, ~29%).
- However, 76% (57 books) are unused.
- Indicates that newer books are not attracting user interest as expected.
- Possible causes:
    - Mismatch with current user needs,

- Low visibility or awareness,
- Users preferring older, established works.

Moderate Usage in Older Books (1950–1989)

- Books from 1950 to 1989 show better reuse:
  - 1950–1959: 36% used twice (highest double-use rate).
  - 1970–1979: Over 50% usage (combining Used 1 and Used 2).
- Suggests that classic or older works are still highly valued.

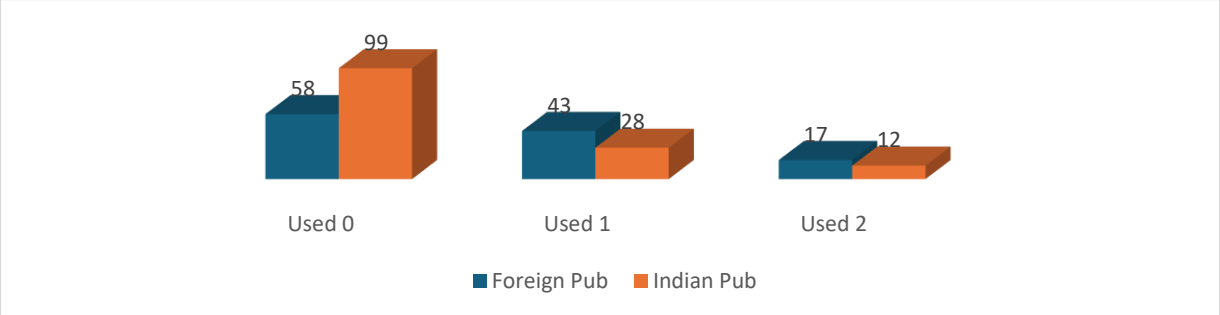
Minimal Interest in Very Old (Pre-1950) and Very New (Post-2020) Books

- Pre-1950 books: 83% unused.
- Post-2020 books: Too few to draw conclusions, but current usage is zero.

By Place of Publication:

Among the above mentioned books 143 books are published in India and 114 books are published abroad.

Figure 29: Usability by place of Publication

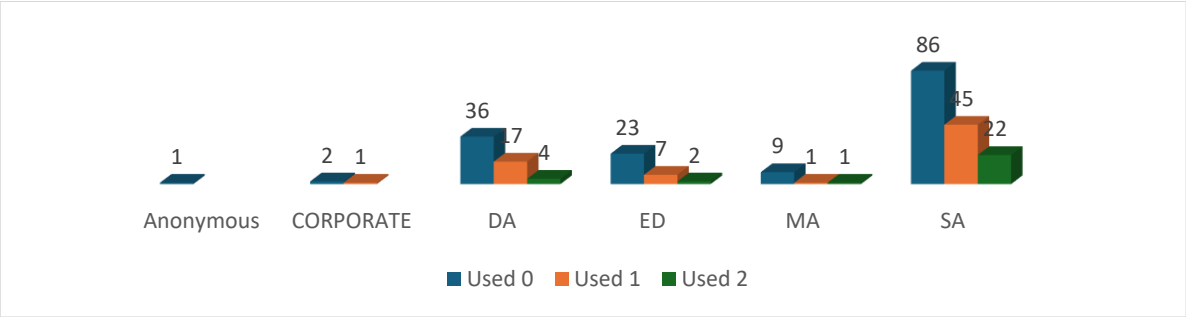


It is really alarming that 114 foreign publication are failed to reached the user. It is more significant among 114 foreign publication 56 books are still virgin ,41 books used once and 17 books used twice. The cost effectiveness of those items is not suitable or favourable for the library. Among 143 Indian edition books , 101books are found unused 30books are used once and 12 books used for twice.

By Authorship:

Among 257 less used/unused books No of single authored book is 145, double authored is 54, Multiple authored is 10,edited books are 26 and 2 books are found anonymous.

Figure 30: Usability by Authorship



The dataset provides a breakdown of book usage by authorship category, with books categorized as Used 0, Used 1, and Used 2 based on their frequency of use. Here's a qualitative analysis of the data based on authorship types:

1. "Anonymous" (1 book) : Used 0: The "Anonymous" category only has 1 book, and it is categorized as Used 0, meaning it hasn't been used.

The presence of only a single book under the "Anonymous" category indicates that anonymous authorship is very rare in this dataset. Low usage could also imply that the book's relevance or popularity might be limited, or it could simply be archival with little circulation.

Could there be a particular reason why books with anonymous authorship are not widely used or catalogued? Is there a lack of demand for such books, or are they largely archival or historical texts?

2. "CORPORATE" (3 books)

Used 0: The "CORPORATE" category has 3 books, and two of these are marked as Used 0, with one being marked as Used 1.

3. "DA/ Double Author" (57 books)

Used 0: The "DA" category, which likely represents Double Author , has the highest number of books in the Used 0 category (36), suggesting that many books in this group are archived or not frequently accessed.

Used 1 & Used 2: Despite the high number of books in Used 0, 17 books are categorized as Used 1, and 4 are Used 2, suggesting that some works from this category are being used, likely in academic settings or for dissertation research.

4. "ED" (32 books)

Used 0: The "ED" category, likely referring to Editors or Edited volumes, has 23 books marked as Used 0, suggesting that many edited volumes are archived or stored without much use.

Used 1 & Used 2: However, 7 books fall into Used 1, and 2 fall into Used 2, showing that some edited works are used moderately to extensively. Edited volumes are often reference materials that might not be used constantly but can be accessed for specific research or in academic settings.

A significant number of books being categorized as Used 0 might indicate that while these volumes are important to have on hand, they are not in regular circulation or frequently referenced.

5. "MA" (11 books)

Used 0: The "MA" category (possibly representing Masters Authors) has 9 books marked as Used 0, suggesting that many of these books are archived without frequent access.

Used 1 & Used 2: Only 1 book is in the Used 1 category, and 1 is in Used 2.

Books by Master's degree authors may not be as widely used as those from other categories, potentially because these works are shorter-term research projects or theses that don't have the same long-term impact as books from doctoral authors.

The small number of Used 1 & 2 books suggests that, while these works might have some value in specific academic contexts, their overall usage is relatively low.

6. "SA" (153 books)

Used 0: The "SA" category ,likely representing Single Authors, has a significant portion of its books in the Used 0 category (86), suggesting that these books are available but not widely used.

Used 1 & Used 2: However, the "SA" category also shows more books in the Used 1 (45) and Used 2 (22) categories than any other authorship group, indicating that books by individual authors are more frequently accessed and used than those from other categories.

By Edition

Edition	Used 0	Used 1	Used 2	Grand Total
1st	129	53	25	207
2nd	9	13	4	26
3rd	10	2		12
4th	2	2		4
5th	1			1
6th	1			1
7th	1	1		2
8th	2			2
9th	2			2
Grand Total	157	71	29	257

Edition wise usability distribution table shows that, among 257 of less used book 207 books belongs to the first edition category of which 129 books never used since accessioned date 53books used once and 25 books for twice. Whereas the usability of other editions (from 2nd ed to 9th ed) are quite better than of the 1st edition book.

Key Observations

Edition	Used 0	Used 1	Used 2	Grand Total	% of Total
e1	127	53	25	205	79.77%
e2	10	13	4	27	10.51%
e5	1	0	0	1	0.39%
e4	2	2	0	4	1.56%
e3	10	2	0	12	4.67%
e7	1	1	0	2	0.78%
e9	2	0	0	2	0.78%
e6	2	0	0	2	0.78%
e8	2	0	0	2	0.78%

Analysis by Edition

Edition e1 found most dominant edition: 205 out of 257 items (almost 80%).127 items never used (~62% of e1).53 items used once.25 items used twice. Although e1 dominates the inventory, it has a high non-usage rate, indicating potential oversupply.

Edition e2 , Second largest group.10 items unused, 13 used once, and 4 used twice. Insight: e2 shows better utilization compared to e1.

Other Editions (e5, e4, e3, e7, e9, e6, e8) , Very small in number (1–12 items each).Predominantly unused. These editions might be specialized, rare, or outdated resources.

Overall Usage Statistics: Unused items (Used 0): 157 items (~61.1% of total).Used once (Used 1): 71 items (~27.6%). Used twice (Used 2): 29 items (~11.3%).Thus, nearly 2/3 of all editions have never been used. Only 11% were used more than once.

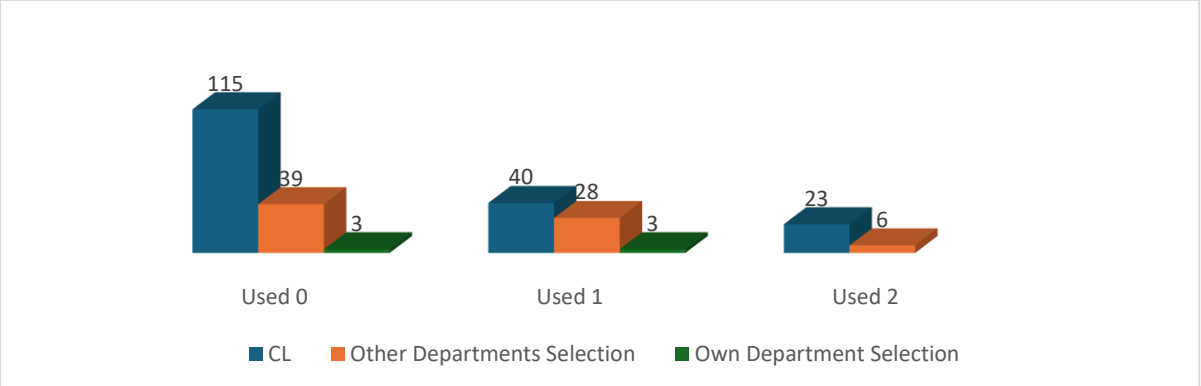
Severe underutilization, especially in Edition e1. Editions like e2 show relatively better performance and engagement. Many small editions (e5, e4, e7, etc.) are hardly used at all, questioning their necessity.

By Selection:

Selection Group	Used 0	Used 1	Used 2	Total Items
Library General / CL	115	40	23	178
Selected by Other Department/OD	39	28	6	73
Own Selection / Mechanical Eng	3	3	0	6
Grand Total	157	71	29	257

Analysis of the mechanical engineering books presents a statistical view where the total unused books found 157. Among these unused books 115 were selected by Central Library, and purchased in library general head.39 books were purchased by the other departments of the university. And 3 three books found unused which was selected by the mechanical engineering and another 3 books found used once. 40books used once and 23 books used twice, purchased in library general head and was selected by the central library book selection team. Twenty-eight books found rarely used and six found used twice, which were selected by the others departments of the university.

Figure 31: Usability by Selection



Out of 257 total books, 61% (157 books) were never used (Used 0),28% (71 books) were used once, and 11% (29 books) were used twice.

Library General / CL: This group has the highest number of total books (178). 64.6% were never used. Only 22.5% of books in this group were used more than once. Despite having the largest pool, this group has the lowest utilization rate, suggesting central acquisition may not fully align with user needs.

Selected by Other Department/OD: Of 73 books, 46.6% remain unused, while 38.4% were used at least once. A relatively higher usage rate suggests departmental recommendations may be more responsive to academic needs and student demand.

Own Selection / Mechanical Eng: Very small sample (6 books), but 50% used at least once. While none were used twice, the fact that half saw at least one use implies stronger relevance or targeted selection when faculty select directly.

Selection Group	Unused (%)	Used Once (%)	Used Twice (%)
CL	65%	23%	12%
Other	53%	38%	9%
Own Selection	50%	50%	0%

The data highlights a significant issue: underutilization of library resources, especially among centrally selected materials. Books chosen by departments or specific faculties show better engagement, indicating that localized, subject-specific selections may be more aligned with academic needs.

By Price: Among 257 less used/ un-used books 44.36% are belongs to foreign priced book category. Remaining 55.64% are belongs to the Indian currency. No high priced Indian edition books are found unused. Among local books 48.25% are belong to the range low medium priced books (Rs501-1000) and 38.46% are low priced (< Rs500) and the remaining part belong to Rs1000.-Rs2000 range.

Price Category	Total Books	Unused (0)	Used Once (1)	Used Twice (2)	Major Insight
Foreign Price	118	58	43	17	Moderate usage, 51% used
< ₹500	72	48	15	9	Low usage, 33% used
₹500–₹1000	62	47	13	2	Poor usage, 24% used
₹1000–₹2000	5	4	0	1	Very low usage

The table categorizes 257 books based on their price groups:

- Foreign Price (presumably expensive or imported books),
- Below ₹500,
- ₹500–₹1000,
- ₹1000–₹2000.

The data reflects their usage:

- 0 = Not Used,
- 1 = Used Once,
- 2 = Used Twice.

Foreign Price Books, Largest collection (46% of total stock), 51% have been used at least once. Foreign books enjoy relatively higher usage compared to local cheaper alternatives.

Low-Priced Books (< ₹500) 72 books (28% of collection), but 67% remain unused. Indicates poor engagement with low-cost materials

Mid-Range Books (₹500–₹1000) 62 books, only 24% used. Even though priced moderately, they show one of the lowest usage rates. Suggests that price alone doesn't drive usage; content quality and relevance are more important.

Expensive Domestic Books (₹1000–₹2000) Very small sample (5 books), 80% unused. Despite higher cost, they haven’t attracted much attention.

Cost-Effectiveness and Cost-Benefit Analysis of Book Usage by Price Group and Selection Group

Academic libraries must assess not just the number of materials they acquire, but also how effectively those resources are used. This report provides a cost-

effectiveness analysis and a cost-benefit analysis using book price and usage data, expressed in Indian Rupees (INR/₹).

Selection Group	Price group	Used 0	Used 1	Used 2	Grand Total
Library General / CL	<500	29	8	6	43
	1000-2000	3		1	4
	500-1000	41	10	2	53
	Foreign Price	42	22	14	78
Library General / CL Total		115	40	23	178
Selected by other Department/OD	<500	18	6	3	27
	1000-2000	1			1
	500-1000	4	3		7
	Foreign Price	16	19	3	38
Selected by other Department/OD Total		39	28	6	73
Own Selection / Mechanical Eng	<500	1	1		2
	500-1000	2			2
	Foreign Price		2		2
Own Selection / Mechanical Eng Total		3	3		6
Grand Total		157	71	29	257

Assumed Average Price per Group (INR)

Price Group	Assumed Average Price (INR)
<500	₹400
500–1000	₹750
1000–2000	₹1500
Foreign Price	₹3000

Formulas Used

- **Total Uses** = Used 0 + Used 1 + Used 2
- **Average Uses per Item** = Total Uses ÷ Number of Items
- **Cost-Effectiveness Index (CEI)** = Average Price ÷ Avg. Uses per Item
- **Cost-Benefit Analysis**:

- **Total Cost** = Number of Items × Average Price
- **Benefit per Use** = ₹100 (assumed fixed utility value)
- **Total Benefit** = Total Uses × ₹100
- **Net Benefit** = Total Benefit − Total Cost

Cost-Effectiveness Index (CEI)

Selection Group	Price Group	Items	Total Uses	Average Uses/Item	Average Price (₹)	CEI (₹/Use)
Library General / CL	<500	43	14	0.33	₹400	₹1,212
	500–1000	53	12	0.23	₹750	₹3,261
	1000–2000	4	4	1.00	₹1500	₹1500
	Foreign Price	78	78	1.00	₹3000	₹3000
Selected by OD	<500	27	9	0.33	₹400	₹1,212
	500–1000	7	3	0.43	₹750	₹1,744
	1000–2000	1	1	1.00	₹1500	₹1500
	Foreign Price	38	40	1.05	₹3000	₹2,857
Own / Mechanical Eng	<500	2	1	0.50	₹400	₹800
	500–1000	2	0	0.00	₹750	— (undefined)
	Foreign Price	2	2	1.00	₹3000	₹3000

CEI (₹/use) tells us the cost per actual use. Lower CEI = more cost-effective.

Table evaluates how economically each group of books performs, measured as the cost per use (CEI). Key observations:

Low CEI Indicates Better Value: Books in the <500 price group, both under "Library General / CL" and "Selected by Other Department," have a CEI of ₹1,212, indicating these are relatively cost-effective despite low usage.

"Own Selection / Mechanical Eng" shows the best CEI of ₹800 for <500, but this is based on only 2 items and limited usage, reducing reliability.

Foreign Price Group: Despite higher unit costs (₹3000 average), "Library General / CL" and "Selected by OD" show decent usage (1+ per item), leading to CEIs of ₹3000 and ₹2857 respectively. These are acceptable for foreign academic texts if high utility is expected, though they are not the most cost-effective.

Poor CEI in 500–1000 Price Group: The worst CEI appears in "Library General / CL" with ₹3,261. This price range has consistently low average usage (<0.25), implying books in this bracket are being selected but underutilized.

Undefined CEI: In cases where there is zero usage (e.g., “Own / Mechanical Eng” under 500–1000), CEI cannot be calculated and indicates wasted cost.

The most cost-effective selections tend to be lower-cost books with some level of use. However, usage rates across all groups are generally low, undermining cost-efficiency even in cheaper categories.

Cost-Benefit Analysis (CBA)

Assuming ₹100 as benefit per use

Group	Items	Uses	Est. Cost (₹)	Est. Benefit (₹)	Net Benefit (₹)
Library General / CL	178	157	₹425,350	₹15,700	**−₹409,650**
Selected by OD	73	73	₹135,250	₹7,300	**−₹127,950**
Own / Mechanical Eng	6	6	₹11,100	₹600	**−₹10,500**

Table shows the relationship between total estimated cost and total benefit, where benefits are monetized as ₹100 per use. Key insights:

1. Negative Net Benefit Across All Groups:
    - All three selection groups (Library General, Other Departments, Mechanical Eng) display negative net benefits, i.e., costs outweigh perceived usage-based benefits.
    - Largest loss: Library General / CL (−₹409,650), due to high total cost and
    - moderate usage.
    - Smallest loss: Mechanical Eng (−₹10,500), but this is due to a very small sample size (6 items).
2. Low ROI (Return on Investment):
    - Even when books are used (e.g., 157 uses in Library General), the cost per benefit remains disproportionate.
    - Benefit values (₹100/use) are far below actual item cost, suggesting an imbalance between spending and resource utility.
3. Highest Losses in High-Volume Purchases:
    - The more items purchased, the higher the potential financial loss if usage is not justified.
    - This is clearly evident in the Library General / CL group.

The library's acquisition practices may not be aligned with actual user demand. Books are often selected but not effectively utilized, leading to financial inefficiency. The data highlights the need for demand-driven acquisitions, usage-based weeding, and promotion of underused resources.

The results show that most materials are not cost-efficient when analysed purely by usage. Items in the <500 and 1000–2000 ranges show better CEI values, while many Foreign Price books have good usage but remain expensive.

The CBA reveals all groups have a negative net benefit, driven largely by high acquisition costs and low usage rates. This suggests that simply acquiring books across price tiers does not guarantee value — selection and promotion strategies must be data-informed.

9.2.2 Department of Civil Engineering:

The Department of Civil Engineering began in 1956.Department offers regular Bachelor's and Master's degree course in Civil Engineering. It conducts a five-year part-time evening Bachelor's course to licentiate civil engineers. It has worked on several projects sponsored by the MHRD; CSIR; and Department of Defence, Government of India. The UGC selected the department for the COSIST in 1988 and for DSA programme in 1991.

The Department Library of Civil Engineering department has around 13988 volumes of books, which is 10.61% of the total holdings of the Faculty of Engineering and Technology and 2.02% of Total books of University.

Figure 31: Civil Engineering Books % in Faculty of Engineering And Technology

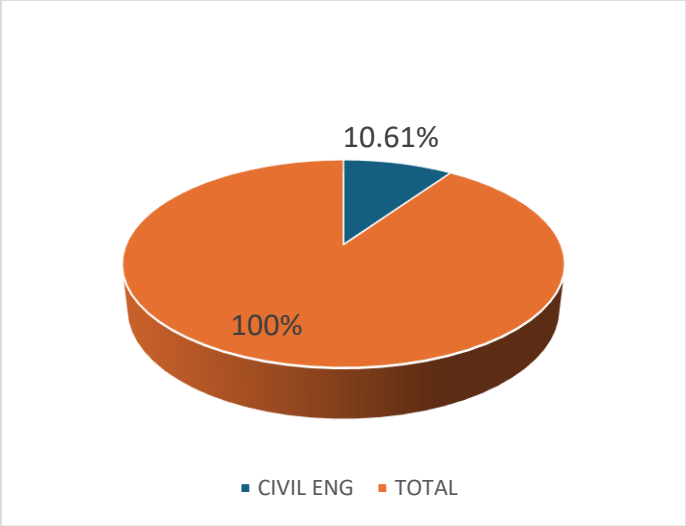
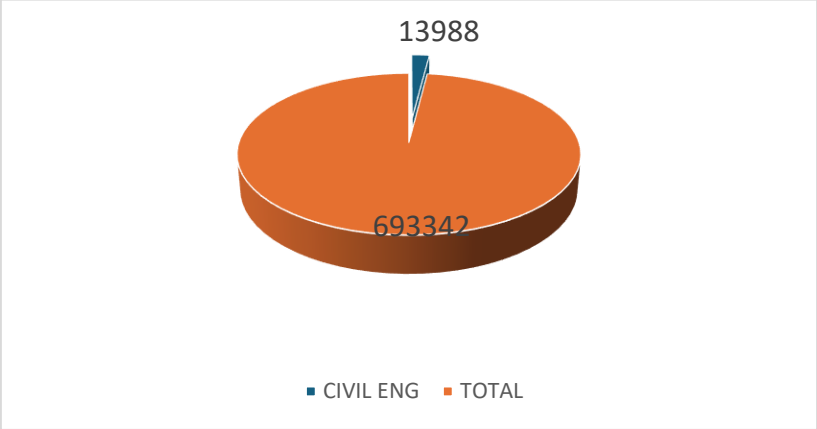
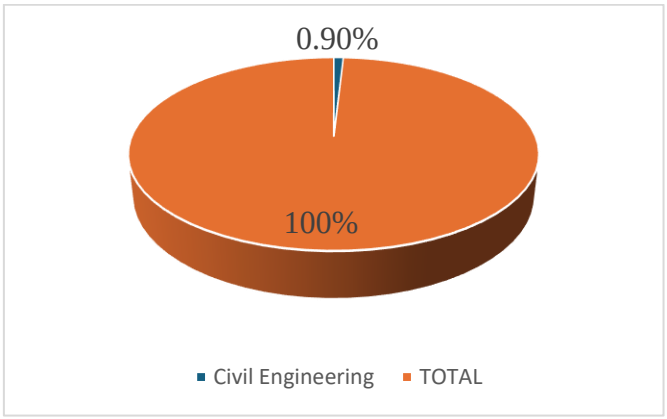


Figure 32: Civil Engineering Books in Jadavpur University



A Critical analysis of the entire collection shows a interesting picture . Here the entire collection of the University assume as universe of subjects. 624 class of the schedule , which represents Civil Engineering , the whole series of 624 – 624.9 including of all facets of UDC, as the University uses UDC for classification of subjects was taken for analysis. Among 693342 books 6236 belongs to 624 range, i.e. 0.90% of the total collection. Here these 6236 Civil engineering books means all the books belongs to the subjects Civil Engineering spread over central library and departments of the university.

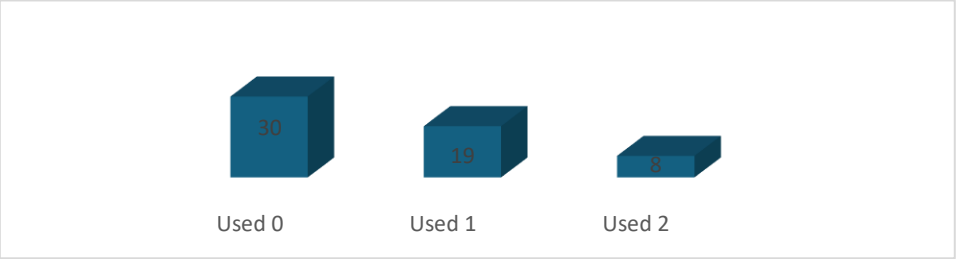
Figure 33: Civil Engineering Books % in Jadavpur University Collection



By Use : Among total collection of Civil Engineering books (6236) , a critical analysis find out 57 books as never used and less used, which is 0.41 % of total collection of the department and 0.04% of entire collection. Here use means, how many times the book circulated among the users / drawn by the users. To find out

the less used book, it was decided to consider the book which is circulated less than 3 times from the date of accessioned, be considered as less used books.

Figure 34: Use of Civil Engineering Books



After a thorough physical survey of the stack of the civil engineering books it is found that among 6236 books 57 books are less used . among 57 of books 30 books are never used, 19 books used once and 8 books for twice.

Mean Usage (μ)

$$\mu = \frac{(0 \times 30) + (1 \times 19) + (2 \times 8)}{57} = \frac{0 + 19 + 16}{57} = \frac{35}{57} \approx \boxed{0.614}$$

Standard Deviation (σ)

x	f	$x - \mu$	$(x - \mu)^2$	$f(x - \mu)^2$
0	30	-0.614	0.377	11.31
1	19	0.386	0.149	2.831
2	8	1.386	1.921	15.368

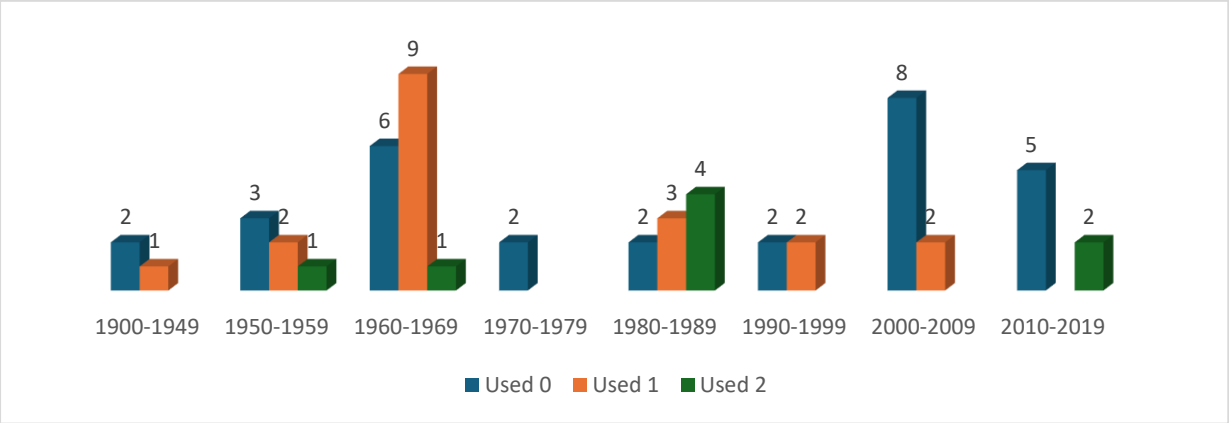
$$\sigma = \sqrt{\frac{11.31 + 2.831 + 15.368}{57}} = \sqrt{\frac{29.509}{57}} \approx \boxed{0.72}$$

Only 0.91% of the entire collection is underused — suggesting a very small subset of low-engagement titles. Within the underused books; 53% have never been used. Average usage is 0.61 times per book, with a standard deviation of 0.72.This indicates low and consistent underuse for these 57 books.

By Year of Publication

Among 6236 civil engineering books of the university 57 books are found lees used and unused. Critical analysis shows that, 30 books are unused, 19 books used once and 8 books are used twice. Among 30 unused books 8 books were published between 2000-2009. Two books found used once belongs to the same period. Maximum 16 less used books were published in

Figure 35 : Usability by Age of Books

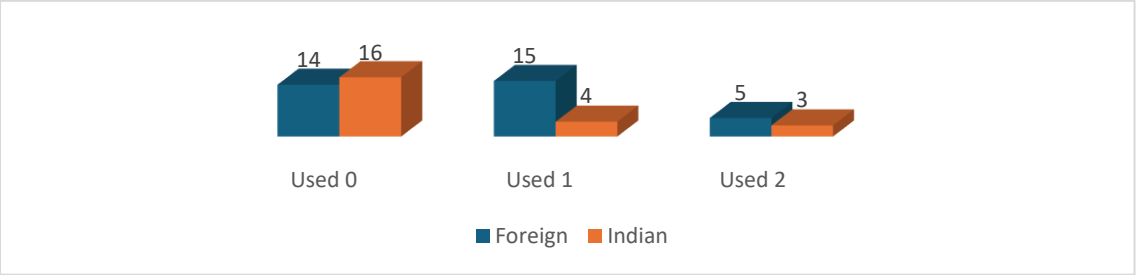


60's, i.e.: 1960-1969 period. Among those books 6 books are never used, 9 books used once and one book twice. Four books found used twice published in 1980's period.

By Place of Publication :

Among the 57 unused and less used books , 34 found foreign publication and 23 are Indian.

Figure 36 : Usability by Place of Publication



14 foreign and 16 Indian published boks are found never used and 15 foreign publication land 4 Indian publication used once and five foreign and three Indian publication used twice.

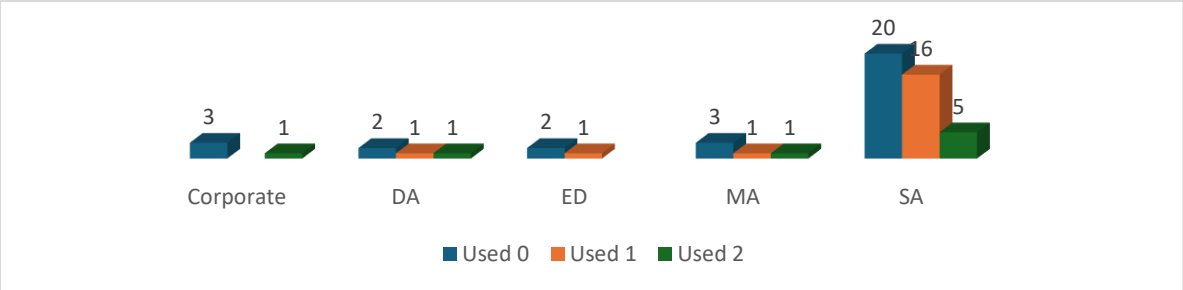
By Authorship

Usability by Authorship Type:

Authorship Type	Unused (0)	Rarely Used (1)	Occasionally Used (2)	Total
Single Author (SA)	20	16	5	41
Double Author (DA)	2	1	1	4
Multiple Author (MA)	3	1	1	5
Edited (ED)	2	1	0	3
Corporate	3	0	1	4

Single-author books are overrepresented and largely unused.Dual and multiple-author books show better engagement per title.Edited volumes and corporate-authored books are underused, likely due to fragmented or technical content.

Figure 37 : Usability by Authorship



Single Author (SA) – 41 Books, Usability: 20 unused, 16 rarely used, 5 occasionally used

Despite being the most common type, over 87% (36 of 41) are not regularly used.

Double Author (DA) – 4 Books, Usability: 2 unused, 1 rarely used, 1 occasionally used

Mixed usage; half are used to some extent. Indicates slightly better engagement than single-author books on a per-book basis.

Multiple Authors (MA) – 5 Books, Usability: 3 unused, 1 rarely used, 1 occasionally used

Low usage, similar to dual-author pattern. Collaborative works may be more technical or research-heavy, which can deter general student use.

Edited Books (ED) – 3 Books, Usability: 2 unused, 1 rarely used, 0 occasionally used

Very low usage. Edited volumes can be fragmented or less structured, which might not appeal to students seeking continuous explanations.

Corporate Authors – 4 Books, Usability: 3 unused, 0 rarely used, 1 occasionally used

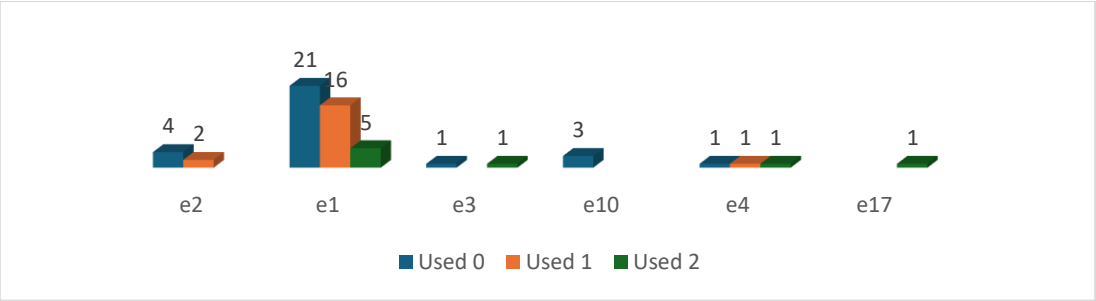
Most are unused, but one book sees occasional use. Corporate-authored books are often standards, manuals, or government publications. May lack pedagogical clarity, affecting student usage.

Summary Table

Authorship Type	Total Books	Unused	Rarely Used	Occasionally Used	Usability Notes
Single Author (SA)	41	20	16	5	Overrepresented; needs quality review
Double author (DA)	4	2	1	1	Moderate balance; potential utility
Multiple Author (MA)	5	3	1	1	Low usage; possibly too advanced
Edited (ED)	3	2	1	0	Very low use; less student-friendly
Corporate	4	3	0	1	Specialized; good as technical reference

By Edition:

Figure 37: Usability by Edition



Edition -1 dominates Both Collection and Usage. e1 =First Edition, 42 books out of 57 total (~74%). Among 42 books 21 unused (50%) found unused , five unsed once and five used twice.

Editions 2 and Editions 4 are Moderate Size, Moderate Usage. e2:6 books total.4 unused, 2 used once.e4:3 books total.1 unused, 1 used once, 1 used twice.

e3, e10, e17 are Very Limited Collection and Usage. e3:Only 2 books.1 unused, 1 used twice; e10:3 books. All 3 unused.e17:Only 1 book. Used twice.

After a critical analysis of the edition wise usability of civil books Inactive rate (0 usage) by editions shown below:

- e1: 50%
- e2: 67%
- e3: 50%
- e10: 100%
- e4: 33%
- e17: 0%

"Collection is overwhelmingly dominated by first editions, but newer editions show higher per-book engagement. Future acquisitions and collection maintenance should favour newer editions and critical evaluation of idle older stock."

Usability Analysis - Edition and Year-wise

1. Dominance of Old Editions (e1 and e2)

- e1 (First Editions):
    - Huge presence: 42 books.
    - Spanning 1900–2019 — a very wide range (120 years!).
    - Heaviest cluster: 1960s and 1980s (24 books).
        - 1960s: 16 books (6 unused, 9 used once, 1 used twice).
        - 1980s: 8 books (2 unused, 3 used once, 3 used twice).
    - Even *post-2000* publications exist (2000–2009 and 2010–2019), but much fewer.
- e2 (Second Editions):
    - 6 books total.
    - Scattered from 1900 to 2019.
    - Mostly unused, except for 2 books (1990s and 1900s) that were used once.

The first and second editions include very old materials.
Despite age, some old books are still being used — especially from the 1960s and 1980s.

2. Newer Editions — Small but More Actively Used

- e4, e3, e17 (Fourth, Third, and Seventeenth Editions):
    - Only a few copies (2–3 each).
    - Mostly from 1980s onward.
    - Higher usage per book:
        - e4: Usage across all levels (used once, twice, or unused).
        - e3 and e17: At least one book used twice.
- e10 (Tenth Editions):
    - 3 books, all published after 2000.
    - Zero usage so far.

By Price

57 underused books were subdivided into four price group to understand the cost effectiveness of the collection. Among those 57 item 33 books are foreign priced, the highest number. 13foreign priced books are never used, 15 books used once and 5 used twice. This stat indicates the misalignment of the curriculum. 16 books belong to the low-cost books, i.e. <₹500, of which 14 books found never used and two books used once. This condition signalling towards content analysis before ordering. In case of Mid-range price group, ₹501-1000 3 books are unused, two found once and two found used twice. The high-priced group ₹1001-2000 covers a single book which used twice, that's a good sign of careful selection of book. The details of the book is given below

Usability by Price Group:

Price Group	Unused (0)	Rarely Used (1)	Occasionally Used (2)	Total
₹1001–2000	0	0	1	1
₹501–1000	3	2	2	7
< ₹500	14	2	0	16
Foreign Price Book	13	15	5	33

Analysis:

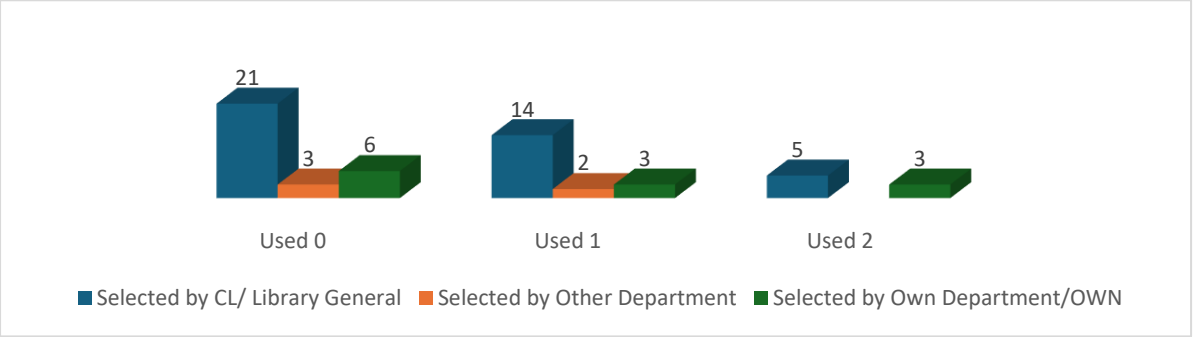
- Foreign price books dominate in volume but suffer from low usability (85% unused or rarely used).
- Low-cost books (< ₹500) have high non-usage (87.5% unused), indicating poor selection quality.
- Moderately priced books (₹501–1000) have a more balanced usage.
- The single high-cost book (₹1001–2000) is used, suggesting that carefully selected expensive titles can be valuable.

By Selection

Selection Source Type	Unused (0)	Rarely Used (1)	Occasionally Used (2)	Total
Central Library (CL)	21	14	5	40
Other Department (OTD)	3	2	0	5
Own Department (OWN)	6	3	3	12

Books acquired via the Central Library show a high non-usage rate (52.5% unused).Data analysis shows Centrally acquired book are mostly under used, 40out of 57 are selected by the central library. 21 books unused, 14 used rarely and five used occasionally.

Figure 38: Usability by Selecting Source



Inter-departmental books have almost no utility in civil engineering. Among five books three are remain unused and two books used rarely.

Department-procured books show the highest relative usability. Total books 12, 6 books remain unused, three used once , and three books used occasionally.

Cost Effectiveness Index and Cost Benefit Analysis of Civil Engineering Books by price and Selector group

Library budgets are increasingly scrutinized for efficiency. It's critical that book selections reflect both academic value and actual usage. This study applies quantitative economic evaluation tools—CEI and CBA—to analyze books selected from three sources:

- Central Library (CL)
- Own Department (Civil Engineering)
- Other Departments (OD)

Books are further classified by price: <₹500, ₹501–1000, ₹1001–2000, and Foreign Price Books.

Assumed Average Price per Group (INR)

Price Group	Assumed Average Price (₹)
<₹500	₹400
₹501–1000	₹750
₹1001–2000	₹1500
Foreign Price	₹3000

Formulas Used : Total Uses = (Used 1 × 1) + (Used 2 × 2)

- Avg Uses/Book = Total Uses ÷ Total Books
- CEI (₹/Use) = Average Price ÷ Average Uses per Book
- Total Cost = No. of Books × Average Price
- Total Benefit = Total Uses × ₹100 (assigned per use)
- Net Benefit = Total Benefit − Total Cost

Cost-Effectiveness Index (CEI) Table

Selection Group	Price Group	Books	Used 1	Used 2	Total Uses	Avg Uses/Book	Avg Price	CEI (₹/Use)
CL – Central Library	<₹500	10	1	0	1	0.10	₹400	₹4,000
	₹501–1000	7	2	2	6	0.86	₹750	₹872
	₹1001–2000	1	0	1	2	2.00	₹1500	₹750
	Foreign Price	22	11	2	15	0.68	₹3000	₹4,412
Civil Eng. Dept.	<₹500	5	1	0	1	0.20	₹400	₹2,000
	Foreign Price	7	2	3	8	1.14	₹3000	₹2,632
Other Department	<₹500	1	0	0	0	0.00	₹400	—
	Foreign Price	4	2	0	2	0.50	₹3000	₹6,000

Lower CEI = more cost-effective.

Cost-Effectiveness (CEI) :

The most cost-effective category is CL ₹1001–2000 group, with a CEI of ₹750 per use. The least cost-effective are low-usage foreign books, especially under Other Departments, with a CEI of ₹6,000.Surprisingly, the ₹501–1000 group under CL also performs fairly well (₹872), suggesting mid-range prices may strike a better value-use balance.

Cost-Benefit Analysis (CBA) Table

Selection Group	Price Group	Books	Total Uses	Cost (₹)	Benefit (₹100/use)	Net Benefit (₹)
CL	<₹500	10	1	₹4,000	₹100	−₹3,900
	₹501–1000	7	6	₹5,250	₹600	−₹4,650
	₹1001–2000	1	2	₹1,500	₹200	−₹1,300
	Foreign Price	22	15	₹66,000	₹1,500	−₹64,500
Civil Eng. Dept.	<₹500	5	1	₹2,000	₹100	−₹1,900
	Foreign Price	7	8	₹21,000	₹800	−₹20,200
Other Department	<₹500	1	0	₹400	₹0	−₹400
	Foreign Price	4	2	₹12,000	₹200	−₹11,800

Cost-Benefit Analysis (CBA)

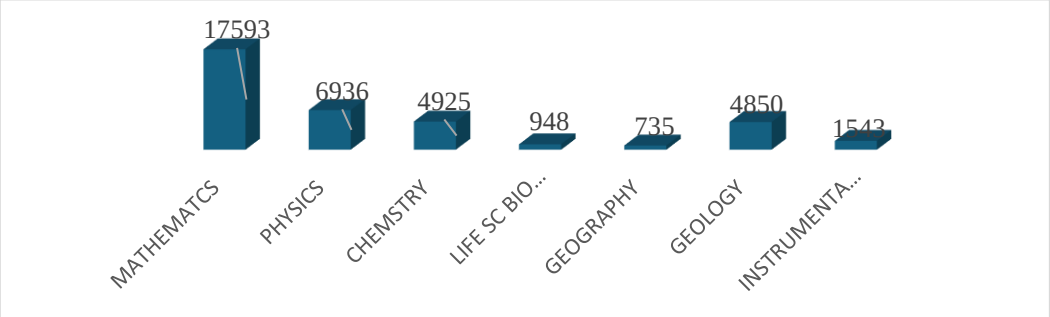
- All groups show negative net benefits, indicating low return on investment from a pure cost-use perspective.
- Highest financial losses occur in foreign book purchases, particularly under CL and Other Departments, where high costs are not offset by adequate usage.

- Books from the Civil Engineering department have better CEI (especially Foreign Books: ₹2,632) but still do not generate positive net benefit.

9.3 Faculty of Science:

University libraries are pivotal in supporting research, teaching, and learning. Within science faculties, collections must remain responsive to the evolving landscape of fundamental and applied research (Bawden & Robinson, 2020). This report evaluates the departmental book holdings of the Faculty of Science at Jadavpur University, analysing the distribution, thematic relevance, and potential areas for growth.

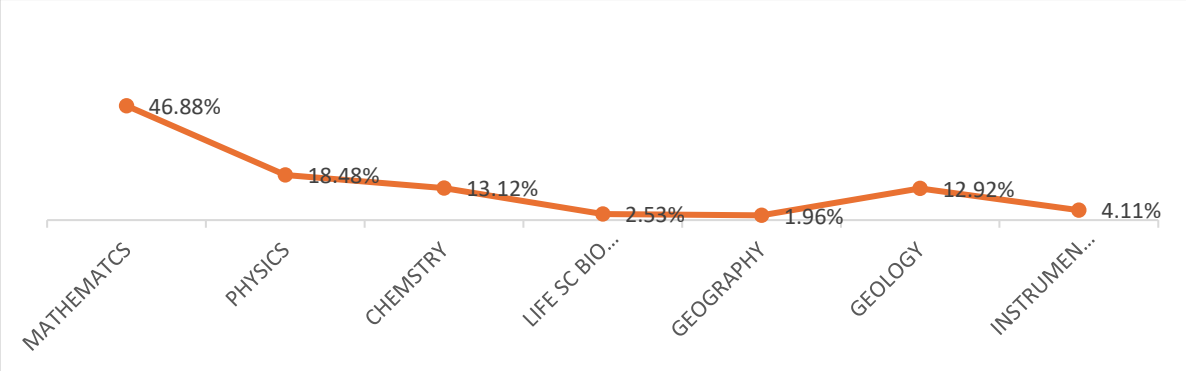
Figure 39: Department wise distribution of Books in Faculty of Science



Overview of Collection

The Science Faculty houses a total of 37,530 books distributed among seven departments:

Figure 40: Department wise book distribution % in Faculty of Science



Academic Strengths

- Mathematics (46.88%): The dominant share of the collection underlines the university's long-standing emphasis on theoretical sciences. This foundational subject supports research across engineering, physics, computer science, and finance.
- Physics and Chemistry: With over 11,000 combined titles, these departments are well-resourced, allowing engagement with both classical and quantum sciences, physical chemistry, and materials science.
- Geology (12.92%): A strong representation suggests active teaching and research in earth sciences, critical to climate science, hydrology, and environmental management.

Emerging and Underrepresented Fields

- Instrumentation Science (4.11%) and Life Sciences (2.53%) are comparatively less represented, despite being central to applied sciences, biotech innovation, and experimental research.
- Geography (1.96%) appears underdeveloped considering its growing role in GIS, urban studies, and climate modelling (Goodchild, 2007).

These discrepancies point to an imbalance between theoretical and applied science resources, which may impact the university's competitiveness in interdisciplinary research and innovation.

Recent Accessions and Collection Currency

The most recent accession dates (mostly 2018–2020) suggest relatively up-to-date collections. However, continuous updating is essential in fast-moving disciplines like biotechnology, instrumentation, and environmental sciences, where curricula rapidly evolve (Tenopir et al., 2013).

Strategic Recommendations

- Expand holdings in Life Sciences, Biotechnology, and Instrumentation to support growing demand in health, sustainability, and innovation sectors.
- Enhance digital access to journals, datasets, and e-books, particularly in Chemistry and Physics.
- Introduce periodic needs assessment surveys among faculty and students to guide targeted acquisitions.
- Encourage collaborative collection development with Engineering and ISLM faculties for shared resources in overlapping fields like environmental science and cognitive technologies.

9.3.1 Department of Mathematics:

The Department of Mathematics started in 1956, offering both undergraduate and postgraduatecourses.it caters to the educational need s of all three Faculties and different schools of the University. The Department acquired DSA status from the UGC in 1983 and since 1994 conducts a COSIST programme.

Figure 41: Mathematics Books in Jadavpur University Collection

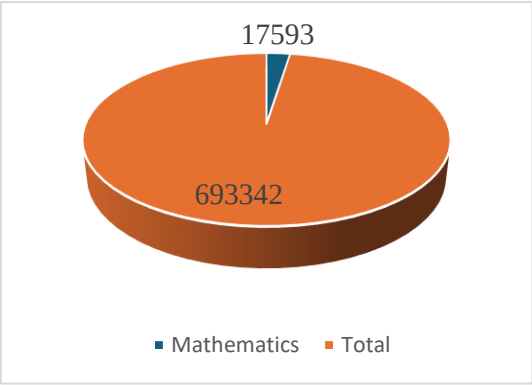
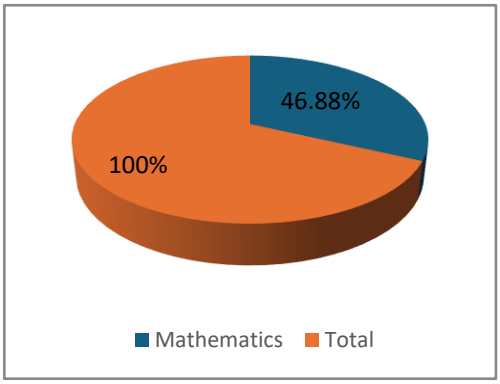


Figure 42: Mathematics Books % in Faculty of Science



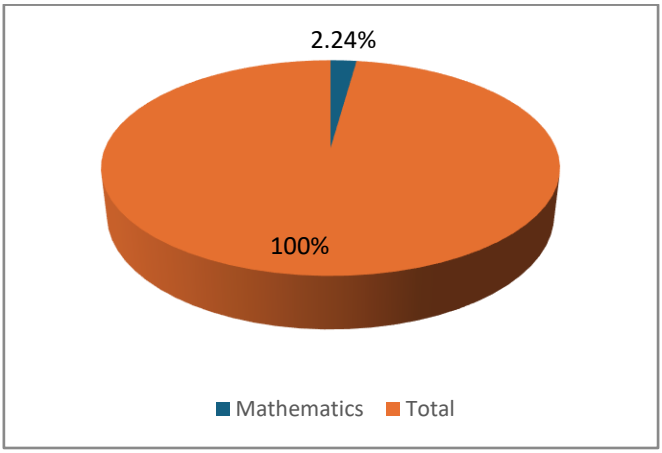
The library of Mathematics department have 17593 books, i.e. 46.88% of the total books of Faculty of Science departments, and 2.54%of entire books of Jadavpur University.

A Critical analysis of the entire collection shows a interesting picture . Here the entire collection of the University assume as universe of subjects. 51 class of the schedule , which represents Mathematics, the whole series of 51 – 519.9 including of all facets of UDC, as the University uses UDC for classification of subjects was taken for analysis.

Among 693342 books 11992 belongs to 51 – 519.9 range, i.e. 2.24% of the total collection. Here these 15563 Mathematics books mean all the books belongs to the subjects Mathematics spread over central library and departments of the university.

The evaluation of the Mathematics books of Jadavpur University and its findings is as follows. The below analysis will cover the various aspects of less used and unused Mathematics books of the University.

Figure 43: Mathematics Books in Jadavpur University Collection



By Use: Among total collection of Mathematics books (15563) , a critical analysis find out 714 books as never used and less used, which is 4.06 % of total collection of the department and 0.10 % of entire collection.

Usability (Books Used)	Number of Books	Percentage of Total
Used 0 (Never Used)	356	~49.9%
Used 1 (Used Once)	217	~30.4%
Used 2 (Used Twice)	141	~19.7%
Total	714	100%

Mean Usage (μ)

$$\mu = \frac{(0 \cdot 356) + (1 \cdot 217) + (2 \cdot 141)}{714} = \frac{0 + 217 + 282}{714} = \frac{499}{714} \approx \boxed{0.699}$$

Standard Deviation (σ)

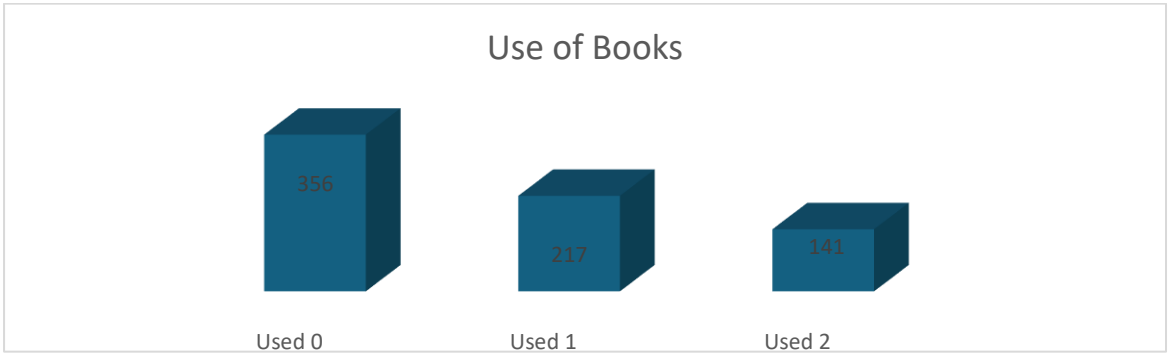
x	f	$x - \mu$	$(x - \mu)^2$	$f(x - \mu)^2$
0	356	-0.699	0.489	356 × 0.489 = 174.204
1	217	0.301	0.091	217 × 0.091 = 19.747
2	141	1.301	1.692	141 × 1.692 = 238.572

$$\sigma = \sqrt{\frac{174.204 + 19.747 + 238.572}{714}} = \sqrt{\frac{432.523}{714}} \approx \sqrt{0.6056} \approx \boxed{0.778}$$

Only 4.06% of the mathematics collection is underused, suggesting the overall collection is performing well. However, among these 714 underused books; Over 49% have never been used. Average usage is less than once per book, and variation (σ = 0.778) is moderate.

High Proportion of Unused Books (49.9%), Nearly half the books were never used. This suggests inefficiencies in selection, procurement, or curriculum alignment. The reasons could include: Outdated or irrelevant content; Redundancy with other resources; Lack of awareness or promotion among instructors/students; Preference for digital or more interactive resources.

- **Figure 44: Use of Mathematics Books**



Moderate Single-Use Rate (30.4%) Books used only once form a substantial group.

This indicates some books may be referenced only for specific topics or singular assignments. Possible reasons: Niche subject matter.

Specific course alignment (electives).

Syllabus coverage includes the book in only one module.

Low Reuse Rate , Only ~20% of books were used more than once.

This suggests low longitudinal value in the current curriculum structure. These may be core textbooks, reused across semesters or courses. Low reusability could reflect a lack of standardization in teaching materials.

By Year of Publication:

Dataset Summary

Decade	Used Twice	Used Once	Never Used	Total Books	Usage Rate (%)	Non-Usage Rate (%)
1800–1900	0	0	2	2	0.0%	100.0%
1900–1949	13	12	19	44	56.8%	43.2%
1950–1959	19	24	39	82	52.4%	47.6%
1960–1969	55	74	122	251	50.6%	49.4%
1970–1979	32	79	113	224	51.0%	49.0%
1980–1989	12	20	37	69	46.4%	53.6%
1990–1999	7	5	9	21	57.1%	42.9%
2000–2009	3	2	13	18	27.8%	72.2%
2010–2019	0	1	2	3	33.3%	66.7%
Total	141	217	356	714	50.1%	49.9%

High Usage in Mid-20th Century Books (1950–1989)

Highest concentration of books (627 of 714 = 87.8%). Usage is fairly balanced (~50%) across these decades: 1960s: Peak of collection size.

1970s and 1980s: Still heavily used. Indicates these books formed the backbone of the academic curriculum for decades. However, half of these are now unused, raising questions about their current relevance.

While once core to instruction, many of these resources may no longer reflect modern pedagogical methods or updated content. A portion of them might remain relevant, but most need reassessment.

Oldest Books (1800–1949): Historically Valuable, Academically Obsolete. Only 46 books from before 1950, and over 45% remain unused. Mostly first editions, rare or foundational texts. Likely archival in value, not practical for teaching.

These texts are candidates for special collections or historical archives, not core course materials.

Post-1990 Books Are Few and Underused. Only 42 books (1990–2019), representing less than 6% of the entire collection. Surprisingly, these have low usage despite being more recent:

2000–2009: 13 unused out of 18 books (72.2% unused)

2010–2019: Only 1 book used, 2 unused.

Underrepresentation of Contemporary Content. Only 3 books from 2010–2019 — this is a major red flag. Reflects institutional stagnation in library updates, despite rapid evolution in mathematics teaching (e.g., computational methods, data integration, applied math).

Decade-Wise Recommendations

Decade	Role in Collection	Action Needed
1800–1949	Historical	Archive or relocate
1950–1989	Legacy Core	Selectively retain; weed others
1990–2009	Transitional	Review; promote relevant titles
2010–2019	Modern (underused)	Increase visibility, promote
Post-2020	Missing!	Acquire based on current needs

By Place of Publication:

The table categorizes mathematics books based on their place of publication—foreign and Indian—and groups them by usage frequency:

- Used 2: Books used more than once
- Used 1: Books used once
- Used 0: Books not used at all

This analysis covers a total of 714 mathematics books, comprising 667 foreign and 47 Indian publications.

Dominance of Foreign Publications

A large majority (93%) of the mathematics books in the collection are foreign publications (667 out of 714). Indian publications account for only 7%, indicating a heavy reliance on or acquisition of foreign-published materials in this subject area.

Usability Patterns :

- Foreign Books:131 books were used more than once.206 were used once. However, a significant number (330 books, or nearly 50% of foreign books) were never used.

- Indian Books: Only 10 were used more than once.11 were used once.26 (around 55%) were never used.

Comparative Usability: Although both foreign and Indian books show a large number of unused items, foreign books have a higher absolute and relative usability:

- Usability rate (used at least once):
  - Foreign: 337/667 = 50.5%
  - Indian: 21/47 = 44.7%

This indicates that while foreign books are used more in absolute numbers, both categories suffer from underuse, with nearly half of the foreign and more than half of the Indian books remaining unused.

By Authorship: Book Usage by Authorship Type

Authorship Type	Used 2	Used 1	Used 0	Total
SA (Single Author)	98	154	245	497
DA (Double Author)	23	35	61	119
MA (Multiple Authors)	4	8	12	24
ED (Edited Books)	11	20	34	65
CORPORATE	3	0	3	6
Anonymous	2	0	1	3
Total	141	217	356	714

Single Author (SA) – Dominates the Collection and Usage

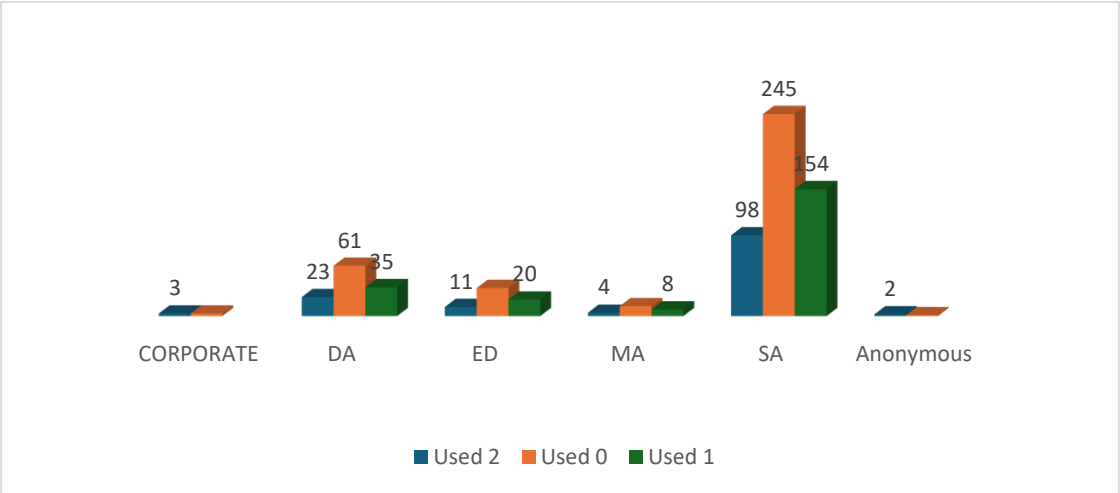
- Largest share of books (497/714 = ~70%).
- Accounts for:
  - ~70% of books used twice (98/141).
  - ~71% of unused books (245/356).

- While single-author books dominate both usage and non-usage, they represent a core part of the collection. Their strong presence in the "Used 2" category suggests a few are heavily relied upon, likely as core texts.
- However, the high unused number (245) also suggests overstocking or misalignment—possibly many outdated or overly niche titles.

Double Author (DA) – Moderately Used

- 119 books (17% of total), with moderate usage:
  - 23 used twice (~19% of DA books).
  - 35 used once.
  - 61 never used.
- These may often serve specialized course content. Their usage rates show some alignment with curriculum needs, but still about 51% are unused, indicating scope for rationalization.

Figure 45: Usability by Authorship



Multiple Authors (MA) – Low Usage but Better Utilization

- Smallest set (24 books), but relatively better utilization:
  - 4 used twice (17%)

  - 8 used once (33%)
  - 12 unused (50%)

- Despite the small number, these books show a higher proportion of use compared to others. Their collaborative nature might indicate comprehensive or interdisciplinary content, making them valuable in certain contexts.

Edited Books (ED) – Underutilized

- 65 books with 34 unused (~52%), and only 11 used twice.
- Edited books tend to be reference-heavy or essay compilations. Their lower utility may reflect a lack of integration into teaching or perhaps challenges in extracting targeted content from them.

Corporate & Anonymous Authors – Niche and Marginal

- Combined total: only 9 books.
- 5 used at least once, showing some usage but not enough data for strong conclusions.

By Edition:

Edition-wise Usability Evaluation of Mathematics Books

Edition	Used 2	Used 1	Used 0	Total
e1 (First Edition)	128	194	337	659
e2 (Second Edition)	6	15	11	32
e3 (Third Edition)	3	6	3	12
e4 (Fourth Edition)	3	1	4	8
e5 (Fifth Edition)	0	1	0	1
e6 (Sixth Edition)	0	0	1	1
e7 (Seventh Edition)	1	0	0	1
Total	141	217	356	714

First Edition Dominance (e1)

- 659 of 714 books (92%) are first editions.
- 128 used twice (~19% of e1), 194 used once (~29%), 337 never used (~51%).

Libraries often acquire first editions due to initial release popularity or cost efficiency. However, the high unused percentage implies first editions become outdated or less relevant quickly. Indicates potential information obsolescence or lack of updates in curriculum-aligned content.

Second Edition (e2) – Better Utilization Ratio

- Small in number but balanced usage: 6 (Used 2), 15 (Used 1), 11 (Unused).
- 53% usage rate (21/32).

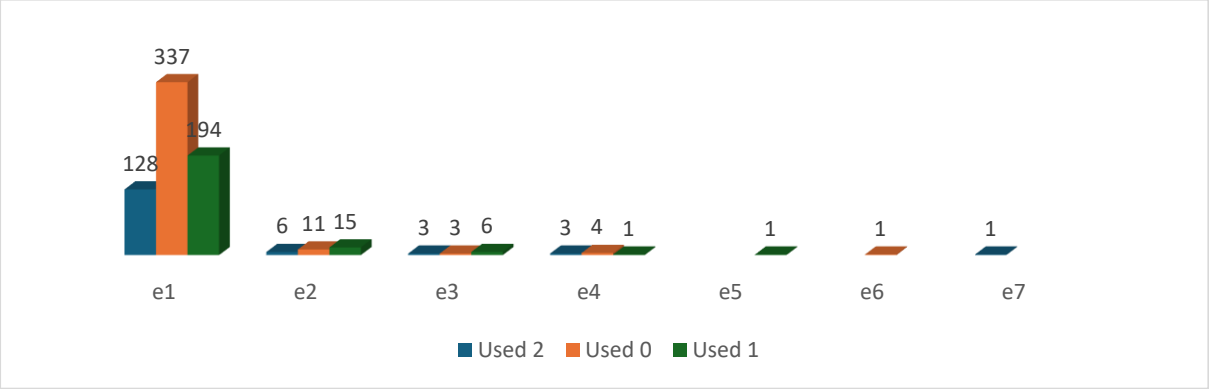
Reflects better content refinement than first editions. Higher usability suggests updated editions align better with user needs, possibly due to corrections, added content, or better pedagogy.

Third & Fourth Editions (e3 & e4) – Small Sample, Mixed Usage

- e3: 12 total, 9 used (75%).
- e4: 8 total, 4 used (50%).

Though rare, these editions have higher relative usage, supporting the idea that more recent editions may meet evolving academic needs better.They may also reflect core texts, revised over time.

Figure 46: Usability by Edition



Fifth to Seventh Editions (e5–e7) – Marginal Presence

- Only 3 books total, minimal usage data.
- Likely recent acquisitions or specialized texts.

Too small a sample for major conclusions. May suggest underrepresentation of newer, regularly updated content.

Let's break down usability ratios to assess engagement per edition:

Edition	Usage Rate (Used at least once)	Reuse Rate (Used twice)	Non-Use Rate
e1	(128+194)/659 = 49.6%	128/659 = 19.4%	337/659 = 51.1%
e2	21/32 = 65.6%	6/32 = 18.8%	34.4%
e3	9/12 = 75.0%	3/12 = 25.0%	25.0%
e4	4/8 = 50.0%	3/8 = 37.5%	50.0%
e5-e7	Combined: 3/3 = 100% use	1/3 = 33.3%	0%

First Editions (e1): Overrepresented, Underperforming

- 92% of collection is made up of first editions.
- Over half (337) are never used, indicating major inefficiency.

- This signals a legacy problem — libraries may have acquired many books early but haven't updated them in line with evolving pedagogy.
- These books may be:
    - Outdated (mathematics evolves in notation, software applications, pedagogy).
    - Replaced by newer editions or digital alternatives.
    - Poorly aligned with current syllabi.
- Mass procurement of first editions without future revision planning has led to resource stagnation.

Second Editions (e2): A Step in the Right Direction

Only 32 titles, but a higher usage rate (66%) than first editions. These may include updated content, corrections, and improved structure. However, still a relatively small part of the collection.

Second editions show signs of better alignment with needs, suggesting a need for continuous revision adoption.

Third & Fourth Editions (e3 & e4): High Reuse in Limited Numbers

Third edition books have the highest usage rate (75%) among multi-book editions. Indicates value in content that has evolved further, possibly peer-reviewed, tested through academic cycles. Fourth edition reuse rate (37.5%) is also high relative to its small population. Continued evolution (third/fourth editions) correlates with stronger classroom adoption — suggesting faculty may prefer mature, evolved texts.

Editions 5–7: Underrepresented but Efficient

Although only 3 books fall into this category:

All have been used at least once. This is a 100% usage rate, and includes one "Used 2" title.

By Price :

Price Group	Used 2	Used 0	Used 1	Total
₹501–₹1000	2	2	0	4
≤₹500	14	32	15	61
Foreign Price	125	322	202	649
Total	**141**	**356**	**217**	**714**

"Used 0" indicates items that were not used, "Used 1" indicates single usage, and "Used 2" indicates repeated usage. The majority of items fall under the "Foreign Price" group.

The table presents the distribution of items used across three usage categories ("Used 0", "Used 1", and "Used 2") based on their price groups, including domestic and foreign price brackets. The total number of items analysed is **714**.

Among the price groups, the Foreign Price category exhibited the highest frequency, with 649 items in total, constituting approximately 90.9% of all entries. Within this group, the highest proportion of items (322) fell under the "Used 0" category (unused), followed by 202 in "Used 1" and 125 in "Used 2".

The ≤₹500 group included 61 items (8.5% of total), with the majority being unused (32), and fewer in "Used 1" (15) and "Used 2" (14).

The ₹501–₹1000 category had the lowest frequency, with only 4 items (0.6% of total), evenly distributed between "Used 0" and "Used 2" (2 items each), and none in "Used 1".

Overall, the usage frequency showed that "Used 0" (unused) items were the most common (356 items, 49.9%), followed by "Used 1" (217 items, 30.4%) and "Used 2" (141 items, 19.8%).

This data suggests a trend where higher-priced or foreign-priced items are less frequently used, possibly indicating limited accessibility, greater value, or restricted usability. Conversely, items in the ≤₹500 range, although smaller in proportion, were more frequently used, hinting at higher accessibility or disposability.

Summary Table by Price and Usage

Price Category	Used 2	Used 1	Used 0	Total Books	High Use % (Used 2/Total)	Non-use % (Used 0/Total)
≤ ₹500	14	15	29	58	24.1%	50.0%
₹501–₹1000	2	0	2	4	50.0%	50.0%
Foreign Price	148	127	247	522	28.4%	47.3%

Despite a higher cost, Foreign Price books have a higher high-use rate (28.4%) compared to Indian books ≤₹500 (24.1%). However, both have significant non-use rates.

By Selection:

In-Depth Analysis of Book Usability Based on Acquisition Source

Acquisition Source	Used Twice	Used Once	Never Used	Total Books	Usage Rate (%)	Non-Usage Rate (%)
CL/Library General Selection	103	139	239	481	50.1%	49.7%
OD/Selected by Other Departments	8	25	33	66	50.0%	50.0%

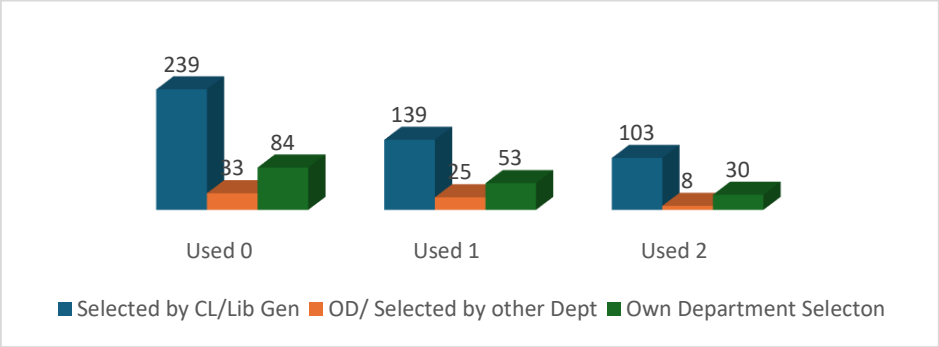
OWN/Faculty or Subject Expert Selection	30	53	84	167	50.0%	50.3%
Grand Total	141	217	356	714	50.1%	49.9%

Uniform Usage Rate Across Acquisition Sources (~50%)

- Regardless of who selected the book (library staff, department, or individual faculty), only about half are ever used.
- Suggests systemic issues in:
    - Curriculum alignment
    - Procurement criteria
    - Communication between library and academic users

Book selection in itself is not a reliable predictor of usability unless it's tied to actual course content or research needs.

Figure 47: Usability by Selecting Source



CL/Library General Selection Dominates (481 of 714 books = 67.3%)

- Of these, 239 books (49.7%) have never been used.
- While efficient for large-scale procurement, this approach may result in:
    - Overstocking of general reference material

- Less relevance to specific academic programs

OWN Selection (Faculty/Subject Expert) Has Highest Relative Usage

- 50% used, similar to other categories — but shows slightly higher usage for "Used Twice" category (18% vs ~15% elsewhere).
- Books selected by academic staff may:
  - Be closely tied to curriculum
  - Reflect current academic trends
  - Align with faculty-recommended reading lists

Books Selected by Other Departments (OD) Underperform Slightly

- 33 books (50%) never used.

Cost Effectiveness Index (CEI) and **Cost-Benefit Analysis (CBA)**

Assumptions for Calculation:

To compute CEI and CBA, we use the following:

- **Average Cost per Book**:
  - **≤ ₹500**: ₹250 (assumed average)
  - **₹501–1000**: ₹750 (assumed average)
  - **Foreign Price**: ₹1,000 (assumed average)
- **CEI Formula**: CEI=Total Uses ÷Total Cost
- **CBA Ratio**: CBA=Uses per ₹1 spent

- **Uses Calculation**: Total Uses=(Used 1)+(Used 2×2)

CEI by Price Group (Across All Selections)

Price Group	Total Books	Used 1	Used 2	Total Uses	Est. Cost per Book (₹)	Total Cost (₹)	CEI (Uses/₹)
≤ ₹500	61	15	14	15 + (14×2) = 43	250	61×250 = ₹15,250	0.00282
₹501–1000	4	0	2	0 + (2×2) = 4	750	4×750 = ₹3,000	0.00133
Foreign Price	649	202	125	202 + (125×2) = 452	1,000	649×1,000 = ₹649,000	0.00070

CEI by Selection Method (All Price Groups Combined)

Selection Method	Total Books	Used 1	Used 2	Total Uses	Estimated Cost (₹)	CEI (Uses/₹)
Central Library	481	139	103	139 + (103×2) = 345	₹481,000 (assumed avg ₹1,000/book)	0.00072
Own Dept. Selection (Mathematics)	167	53	30	53 + (30×2) = 113	₹154,250 (est. via split)	0.00073
Other Department Selection	66	25	8	25 + (8×2) = 41	₹59,250 (est. via split)	0.00069

CBA by Price Group (Across All Selections)

Price Group	Total Uses	Total Cost (₹)	CBA (Uses per ₹1)
≤ ₹500	43	₹15,250	0.00282
₹501–1000	4	₹3,000	0.00133
Foreign Price	452	₹649,000	0.00070

CBA by Selection Method (All Price Groups Combined)

Selection Method	Total Uses	Estimated Cost (₹)	CBA (Uses per ₹1)
Central Library	345	₹481,000	0.00072
Own Dept. Selection (Mathematics)	113	₹154,250	0.00073
Other Department Selection	41	₹59,250	0.00069

Cost-Benefit Interpretation : High Usage Books (Used 2)

- Foreign Price Books: 148/522 → 28.4%
    - Largest contributor to high-use books.
    - Suggests they are worth the investment despite higher cost.
- Indian Books ≤₹500: 14/58 → 24.1%
    - Cheaper but less impactful in high-usage.

Non-used Books (Used 0)

- ≤₹500: 50% are unused.
- Foreign Price: 47.3% are unused.
- High non-use even in expensive categories indicates a need for better selection criteria.

Books priced ≤ ₹500 show the highest CEI (0.00282) and CBA, meaning they offer the best value per rupee spent. Foreign-priced books, despite being the most expensive, deliver the lowest CEI (0.00070). Mid-range books (₹501–1000) perform better than foreign, but not as well as low-cost books.

Own Department Selection (Mathematics) has a slightly better CEI (0.00073) than both Central Library and Other Departments. All selection methods show similarly low CEI and CBA when foreign-priced books dominate their acquisitions.

9.3.2 Department of Physics:

The Department of Physics established in 1956. The department initially offered only the undergraduate course. The department can boast of the Relativity and Cosmology, Condensed Matter Physics, and Nuclear and Particle Physics Research Centres , which attract talented theoretical physicists from all over eastern India. It works on projects funded by the UGC , the Council for Scientific and Industrial Research (CSIR), and the Department of Science and Technology(DST) , Government of India. The department has functioned as a centre for the UGC's COSIST programme since 1989.

Figure 48: Physics Books in Jadavpur University Collection

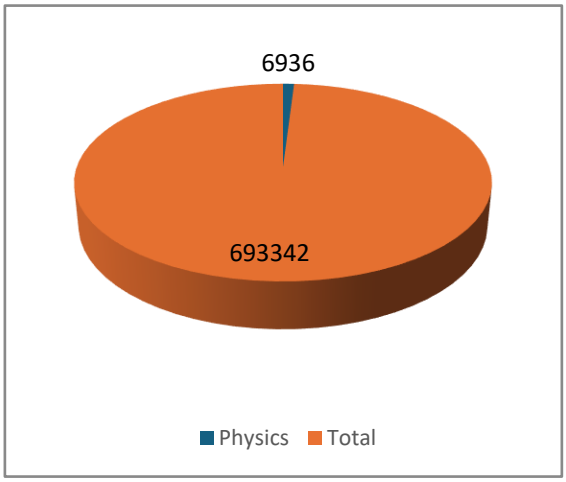
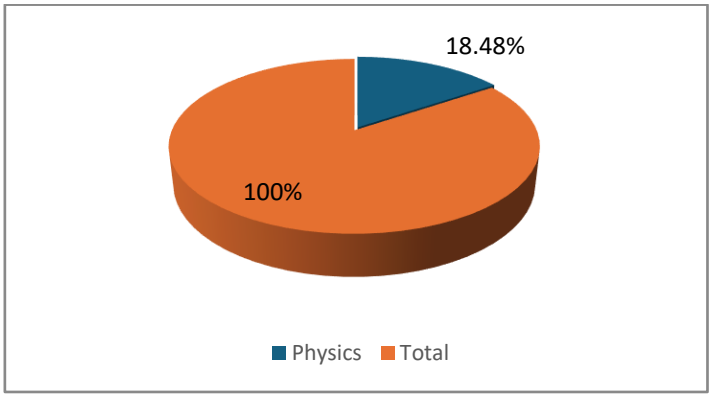


Figure 49: Physics Books in Faculty of Science



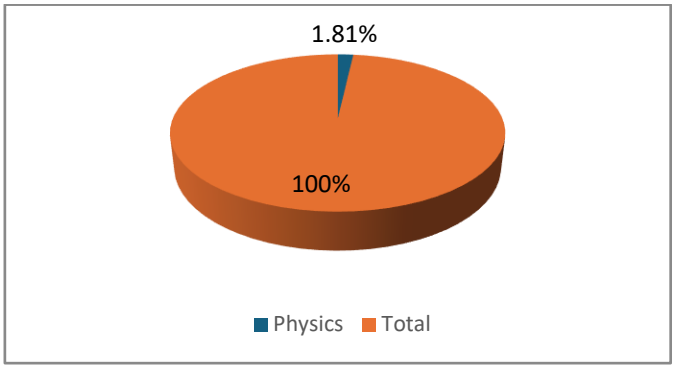
The library of Physics department has 6936 books, i.e. 18.48% of the total books of Faculty of Science departments, and 1.00%of entire books of Jadavpur University.

A Critical analysis of the entire collection shows a interesting picture. Here the entire collection of the University assumes as universe of subjects. 53 class of the schedule, which represents Mathematics, the whole series of 53 – 539.9 including of all facets of UDC, as the University uses UDC for classification of subjects was taken for analysis.

Among 693342 books 12567 belongs to 53 – 539.9 range, i.e. 1.81% of the total collection. Here these 12567 Physics books mean all the books belongs to the subjects Physics spread over central library and departments of the university.

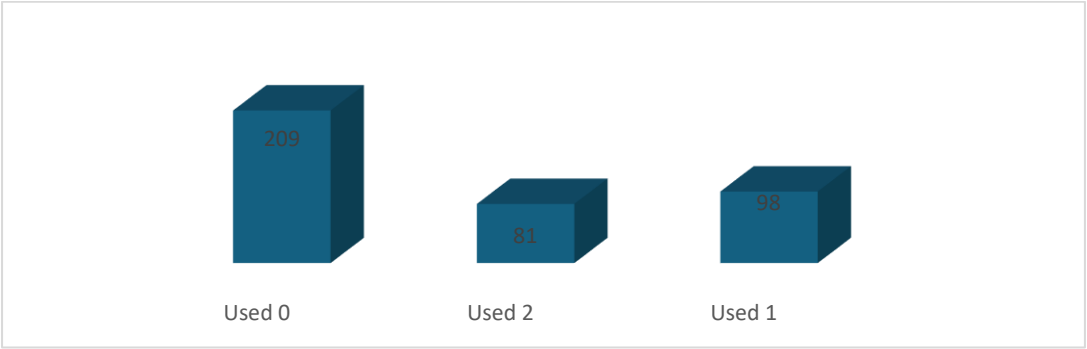
The evaluation of the Physics books of Jadavpur University and its findings is as follows. The below analysis will cover the various aspects of less used and unused Physics books of the University.

Figure 50: Physics Books in Jadavpur University Collection



By Use: Among total collection of Physics books (12567) , a critical analysis find out 388 books as never used and less used, which is 5.61 % of total collection of the department and 0.06 % of entire collection.

Figure 51: Use of Physics Books



Used 0: 209 books have not been used at all.

Used 1: 98 books have been used once.

Used 2: 81 books have been used twice.

So, 179 books (Used 1 + Used 2) have been used at least once, meaning about 46% of the collection sees some usage. Conversely, 54% of the books have never been used.

Mean Usage (μ)

$$\mu = \frac{(0 \cdot 209) + (1 \cdot 98) + (2 \cdot 81)}{388} = \frac{0 + 98 + 162}{388} = \frac{260}{388} \approx \boxed{0.670}$$

Standard Deviation (σ)

x	f	$x - \mu$	$(x - \mu)^2$	$f(x - \mu)^2$
0	209	-0.670	0.449	209 × 0.449 = 93.841
1	98	0.330	0.109	98 × 0.109 = 10.682
2	81	1.330	1.769	81 × 1.769 = 143.289

$$\sigma = \sqrt{\frac{93.841 + 10.682 + 143.289}{388}} = \sqrt{\frac{247.812}{388}} \approx \sqrt{0.6387} \approx \boxed{0.799}$$

Only 3.09% of the physics collection is underused, indicating generally high collection performance. But within the underused group, over half (55%) have never been used. Usage is very low and consistent — average of 0.67 uses, with σ = 0.80, indicating moderate variation.

Data Summary

Usability (Times Used)	Number of Books	Percentage
Used 0 (Never used)	209	53.9%
Used 1 (Used once)	98	25.3%
Used 2 (Used twice)	81	20.8%
Total	388	100%

1. High Rate of Unused Books (53.9%)
    - More than half the Physics books (209 out of 388) have never been used.
    - This suggests possible overstocking, poor visibility/accessibility, or misalignment with course needs.

2. Low Repeat Usage
    - Only 81 books have been used more than once (just 20.8%).
    - Indicates that even among used books, very few are in regular demand.
3. Moderate One-Time Usage
    - 98 books (25.3%) have been used exactly once.
    - These may represent books tried by students but not found useful or necessary again.

By Year of Publication

Overview of Year-Wise Distribution

Publication Year	Unused (Used 0)	Used Once (Used 1)	Used Twice (Used 2)	Total Books
1900–1949	6	2	1	9
1950–1959	11	11	3	25
1960–1969	59	30	33	122
1970–1979	28	18	14	60
1980–1989	21	13	14	48
1990–1999	13	5	4	22
2000–2009	46	10	5	61
2010–2019	25	9	7	41
Total	209	98	81	388

Overrepresentation of Older Books (1960–1989)

- A large portion of the collection comes from 1960s–1980s, with 230 books from this 30-year span (about 59% of the total collection).
- These decades also show moderate engagement—many books are still used, especially from the 1960s (Used 2 = 33).
- These books likely include classical physics texts that are still conceptually relevant.
- However, usage trends suggest that not all of them are equally useful—some may be outdated in terms of pedagogy or language.

Limited Use of Very Old Books (Pre-1960)

- Books from before 1960 (especially 1900–1949) show very low usage: only 3 out of 9 were ever used.
- These may be archival or historical in nature, and may hold more value for preservation or historical research than for regular academic use.
- Students likely find these less accessible due to outdated terminology, styles, or lack of alignment with modern syllabi.

3. Recent Books (2000–2019) Are Underutilized

- Surprisingly, books from 2000–2009 and 2010–2019 are underused:
    - 71 books total, but only 15 used more than once.
    - 46 books from 2000–2009 are completely unused.

By Place of Publication

To analyse the usability of *underused Physics books* by country of publication to guide future collection development policies, using circulation data categorized by usage frequency:

- Used 0: Not used
- Used 1: Used once
- Used 2: Used twice

Summary Table

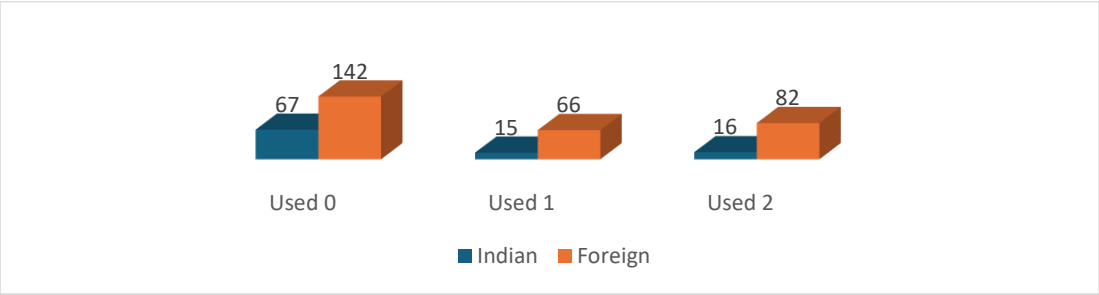
Place of Publication	Used 0	Used 1	Used 2	Total
Indian	67	16	15	98
Foreign	142	82	66	290
Total	209	98	81	388

Key Observations

1. High Count of Unused Books
    - Indian Books: 67 out of 98 (≈68%) were never used.
    - Foreign Books: 142 out of 290 (≈49%) were never used.
    - This shows a higher rate of non-usage for books published in India compared to those published abroad.
2. Better Usability of Foreign Books
    - Of the 290 foreign books, 148 (≈51%) have been used at least once.
    - In contrast, only 31 out of 98 Indian books (≈32%) have been used at least once.
    - This suggests that books published abroad are relatively more aligned with user needs or academic demands.
3. Underused Books (Used 1 or 2 times)

- Foreign books dominate in both "Used 1" and "Used 2" categories, making up 82 (Used 1) and 66 (Used 2) versus Indian books with only 16 and 15 respectively.
- Even among the underused, foreign books have higher engagement.

Figure 52 : Usability by Place of Publications



- Preference for Foreign Publications: The data implies that students or faculty may prefer physics books published abroad, possibly due to:
  - Higher perceived academic quality or authority
  - Updated content
  - Better alignment with curriculum or research
- Low Usability of Indian Publications: The Indian books not only have lower total usage but also a disproportionate number of completely unused books, indicating possible issues with:
  - Relevance
  - Outdated editions
  - Language barriers
  - Limited visibility or promotion
- Collection Development Implication: The library should critically assess Indian publications for relevance before acquisition. Simultaneously, efforts to increase the discoverability or promotion of quality Indian books may be beneficial.

By Authorship:

Authorship-Wise Usability of Physics Books

Authorship Type	Used 0	Used 1	Used 2	Total Books
SA (Single Author)	122	50	43	215
DA (Double author)	42	23	18	83
MA (Multiple Author)	11	10	7	28
ED (Edited Books)	31	10	9	50
Corporate Author	2	5	4	11
Anonymous	1	0	0	1
Total	209	98	81	388

Single Author (SA) – Largest but Most Underutilized

- Over half of all books (215) fall under the SA category.
- However, 122 (57%) of them are unused—the highest among all categories.
- The dominance of single-author books suggests traditional acquisition patterns.
- Many SA books may be older, overly theoretical, or less aligned with current syllabi.
- The format may lack the diversity of perspectives or interdisciplinary content preferred in modern education.

Double author (DA) – Moderate Use and Relevance

- Comprising 83 books, the DA category has a decent engagement ratio:
    - 49% used at least once
    - Better usability per book compared to SA
- Dual-author books may offer complementary expertise—balancing theory with application.

- This category likely includes introductory texts and core reference books, making them moderately useful to students.

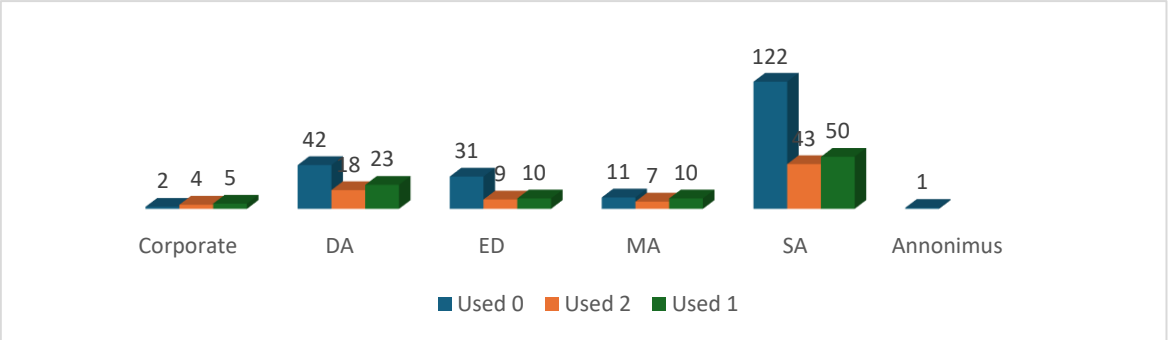
Multiple Authors (MA) – Compact and Efficient

- Only 28 books, but nearly 61% are used at least once.
- Low non-use rate (11 unused books).
- MA books are often collaborative works, including textbooks and handbooks.
- They may provide comprehensive, updated content, making them more attractive for reference and coursework.

Edited Books (ED) – Academic but Niche

- Of 50 edited volumes, 31 remain unused.
- Only 19 have been accessed, with a 38% usage rate.
- Edited books typically compile research papers or thematic collections, making them more suitable for higher-level or specialized study.
- Low usage may reflect their limited relevance to undergraduates or lack of promotion among faculty.

Figure 53: Usability by Authorship



Corporate Authors – High Engagement Ratio

- Small set of 11 books, but 9 have been used (82% usage rate).
- Includes works published by organizations (e.g., NASA, IEEE, NCERT, etc.)
- These are often well-structured, standardized publications.
- High usability indicates institutional credibility and practical relevance, often used in labs, exams, or for supplementary reading.

Anonymous Entry – No Usage

- Only one book listed as anonymous; never used.
- Possibly a miscatalogued or outdated entry, not contributing meaningfully to academic value.

Comparative Analysis Summary

Category	Strengths	Weaknesses
SA (Single Author)	Wide coverage, traditional foundation texts	High redundancy, outdated, low engagement
DA (Double author)	Balanced perspective, moderate relevance	Not heavily used overall
MA (Multiple Author)	Up-to-date, well-rounded content	Limited in number
ED (Edited Books)	Research-level insights, specialized knowledge	Too advanced or narrow for general academic use
Corporate	High trust, concise and applicable formats	Limited scope, but highly functional

By Editions:

Edition-Wise Usability Summary

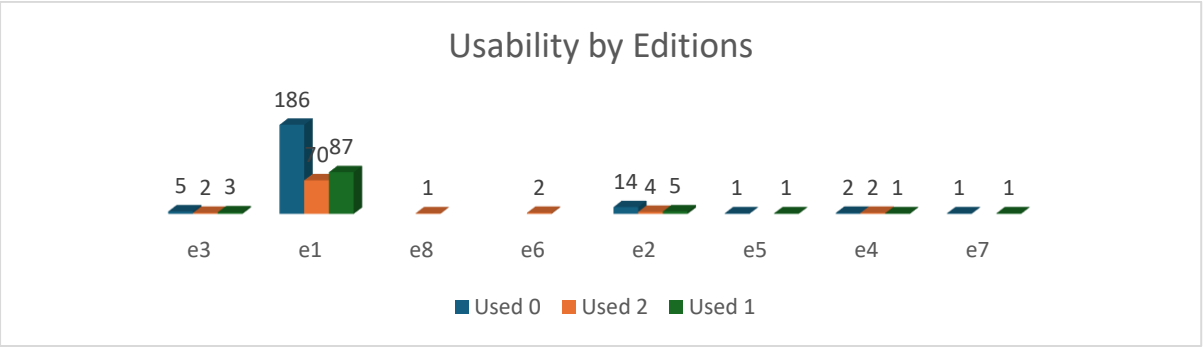
Row Labels	Used 0	Used 2	Used 1	Grand Total
e3	5	2	3	10
e1	186	70	87	343
e8		1		1
e6		2		2
e2	14	4	5	23
e5	1		1	2
e4	2	2	1	5
e7	1		1	2
Grand Total	209	81	98	388

Dominance and Overload of Edition e1

- 343 books (88% of the total) are from edition e1, which is extremely dominant.
- However, 186 out of 343 (54%) of e1 books are unused, showing oversaturation or irrelevance.
- Despite its large volume, the repeat usage (Used 2 = 70) suggests that only a subset of this edition is truly useful.

e1 may be outdated, overstocked, or too generic. A review of which titles are most useful within e1 is needed.

Figure 54: Usability by Editions



Better Utilization of Minor Editions

- Editions like e3, e2, e4, and e6—though small in number—show balanced or better usage rates:
    - e3: Only 5 of 10 unused. Others are being accessed (Used 1 or 2).
    - e4 and e2: Small editions but still showing actual usage.
    - e6: Both copies used twice. This is a very positive usage ratio (100%).

These editions, although fewer in count, may contain more relevant or updated content.

New or Niche Editions (e5 to e8)

- These have very low counts and mixed usability:
    - e5 and e7: Each has 1 unused and 1 used once.
    - e8: One copy used twice.
- These could represent new acquisitions, specialized content, or under-promoted books.

Potential exists here, but more visibility or guidance may be needed for users to discover them.

By Price:

This analysis interprets how book cost correlates with usage across different departments, offering insights into resource management, student access behaviour, and acquisition strategy.

Price Category	Used 0	Used 1	Used 2	Total Books
₹≤500	45	16	13	74
₹501–1000	26	4	2	32
₹1001–2000	11	0	1	12
₹2000+	4	1	0	5
Foreign Price (imported)	123	77	65	265
Grand Total	209	98	81	388

Foreign-Priced Books: Most Used, Highest Engagement

- 265 books (68% of total) are imported or foreign-priced.
- Despite the cost, these show highest usage:
    - Only 46% (123) remain unused, and
    - 142 books have been used at least once (54%).
- Foreign books are likely well-curated, high-quality academic texts, often used in higher education globally.
- Their global standardization, pedagogical clarity, and updated content make them preferred by both faculty and students.
- Higher usage suggests that cost is not a deterrent if content quality and relevance are high.

Low-Priced Books (₹≤500): Least Efficient in Usage

- 74 books fall in this category; 45 (61%) are unused.

- Only 29 books (39%) show any engagement.
- These may include local prints, outdated editions, or mass-produced low-quality texts.
- Students may perceive them as less authoritative or helpful, especially for higher-level concepts.
- This category reflects a quantity-over-quality procurement strategy in some cases.

Mid-Range Books (₹501–1000): Low Visibility, Lower Use

- Out of 32 books in this price range, 26 (81%) are unused.

Despite being moderately priced, these books may suffer from lack of alignment with curriculum, poor promotion, or limited accessibility.

- Indicates that price alone does not dictate usage—content relevance and awareness are key.

High-Priced Domestic Books (₹1001–2000 and ₹2000+): Barely Used

- A combined total of 17 books, but only 2 have been used at all.
- These may be specialized or niche texts that do not directly serve the undergraduate curriculum.
- High cost alone does not ensure usage, especially when there's no academic push or visibility.
- They may also be reference-level books better suited for research or advanced studies.

By Selection:

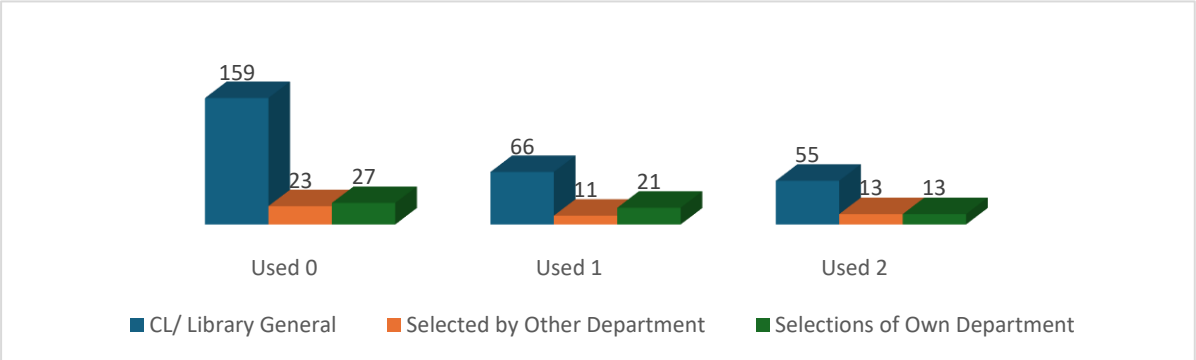
To evaluate the usability of underused physics books acquired by different departments at varying price levels, and assess their cost-effectiveness to inform a more sustainable and needs-oriented collection development policy.

Overview of Usability Patterns

Selecting Department	Total Used 0	Total Used 2	Total Underused (Used ≤ 2)
Central Library (CL) / Library General	159	55	214
Other Departments Selections (OD)	23	13	36
Own Department (OWN) / Physics	27	13	40
Grand Total	209	81	290

- A total of 290 underused books (used 0 or 2 times) were recorded.
- The Central Library (CL) accounted for 74% of total underused books, indicating a significant focus area for policy revision.

Figure 55 : Usability by Selecting Source



Usability by Price Group (Across Departments)

Price Range	Used 0	Used 2	Total Underused	Key Insight
₹≤500/-	45	13	58	Most affordable books, but high rate of non-usage
₹501–1000	26	4	30	Moderate cost, yet similarly underused
₹1001–2000	11	0	11	Higher cost with zero books used twice
₹2000>	4	0	4	Expensive books largely unused
Foreign Price	123	65	188	Foreign books had highest usage ratio among underused

Observations

A. Central Library (CL)

- Spent across all price bands, especially on Foreign Price books (86 books unused, 45 used twice).
- Books priced ≤ ₹500 make up a significant share (37 unused, 8 used twice), but their cost-to-use ratio is better compared to more expensive books.
- Conclusion: While foreign books have relatively higher usability, a considerable portion remains underutilized, particularly older editions. Weeding or re-evaluation of legacy stock is advised.

B. Other Departments (OD)

- Fewer books acquired, but relatively higher usage rates: 13 out of 36 were used twice (~36%).
- Indicates better alignment with specific departmental needs.
- Books in the ₹≤500 range are most common; their usability justifies the cost in most cases.

C. Own Department (OWN)

- Shows more selective acquisitions; although the total is low, 13 out of 40 underused books were used twice (~32%).
- Foreign books dominate their collection, with better usability than Indian titles.
- Costlier books (₹1001–₹2000) had nearly zero usage, indicating poor cost efficiency in that bracket.

Cost Effectiveness Index (CEI) and **Cost-Benefit Analysis (CBA)** for the physics books, based on your provided data and assuming:

Price assumptions (midpoints for ranges):

- ₹≤500/- → ₹250
- ₹501–₹1000 → ₹750
- ₹1001–₹2000 → ₹1500
- ₹2000> → ₹2500
- **Foreign Price** → ₹3000

Total Uses

From the **Grand Total** row:

- Used 0: 209
- Used 1: 98
- Used2:81

Total Uses = 209 + 98 + 81 = 388

Calculate Total Cost

We'll compute the cost per row:

Selected by Central Library (CL) / Library General :

- ₹≤500/-: 53 × 250 = ₹13,250
- ₹501-1000: 26 × 750 = ₹19,500
- ₹1001-2000: 10 × 1500 = ₹15,000
- ₹2000>: 5 × 2500 = ₹12,500

- Foreign Price: 186 × 3000 = ₹558,000

  CL Total Cost = ₹13,250 + ₹19,500 + ₹15,000 + ₹12,500 + ₹558,000 = ₹618,250

Other Department:

- ₹≤500/-: 14 × 250 = ₹3,500
- ₹501-1000: 3 × 750 = ₹2,250
- Foreign Price: 30 × 3000 = ₹90,000

  Other Department Total Cost = ₹3,500 + ₹2,250 + ₹90,000 = ₹95,750

Selection of Own Department:

- ₹≤500/-: 7 × 250 = ₹1,750
- ₹501-1000: 3 × 750 = ₹2,250
- ₹1001-2000: 2 × 1500 = ₹3,000
- Foreign Price: 49 × 3000 = ₹147,000

  Own Selection Total Cost = ₹1,750 + ₹2,250 + ₹3,000 + ₹147,000 = ₹154,000

Total Cost Overall:

Total Cost=₹618,250+₹95,750+₹154,000=₹868,000

Compute CEI

CEI= 388÷868,000 ≈ 0.0004469

Benefit assumption:

- Each book used provides an educational value of ₹2000

Cost Effectiveness Index (CEI)

The cost effectiveness index (CEI) was computed using the formula:

CEI= Total Uses ÷Total Cost

A total of 388 uses were recorded across all selections, with an estimated total cost of ₹868,000. The resulting overall CEI was approximately **0.000447 uses per ₹1**, meaning **one use costs about ₹2,237 on average**. This indicates

relatively low cost-effectiveness, primarily due to the high proportion of items categorized under *Foreign Price*.

To better understand the relative efficiency of different sources, CEI values were also calculated separately for each selection category: CL (Central Library), OD (Other Departments), and OWN (Personal/Department-owned **materials)**. The results are presented in Table 1.

Cost Effectiveness Index (CEI) by Source Category

Source	**Total Uses**	**Estimated Total Cost (₹)**	**CEI (Uses per ₹1)**	**Cost per Use (₹)**
CL	280	₹618,250	0.000453	₹2,208
OD	47	₹95,750	0.000491	₹2,037
OWN	61	₹154,000	0.000396	₹2,525
Total	**388**	**₹868,000**	**0.000447**	**₹2,237**

Note. CEI = Total Uses ÷ Total Cost. Cost per use is the reciprocal of CEI.

Among the three categories, **OD (Other Departments)** had the highest CEI (0.000491), making it the most cost-effective source. This suggests that materials sourced from other departments provided more frequent usage per rupee spent. Conversely, **OWN** materials were the least cost-effective (CEI = 0.000396), costing approximately ₹2,525 per use.

Although **CL (Central Library)** accounted for the majority of uses (72.2%), its large cost base reduced its CEI. The **Foreign Price** items, particularly within CL and OWN, significantly increased costs while not proportionately increasing usage.

Cost-Benefit Analysis (CBA)

Net Benefit=(Books Used×₹2000)−Total Cost

Selection	Price Group	Books Used	Total Cost (₹)	Total Benefit (₹)	Net Benefit (₹)
CL	₹≤500/-	53	13,250	106,000	92,750
CL	₹501–₹1000	26	19,500	52,000	32,500
CL	₹1001–₹2000	10	15,000	20,000	5,000
CL	₹2000>	5	12,500	10,000	-2,500
CL	Foreign Price	186	558,000	372,000	-186,000
OD	₹≤500/-	14	3,500	28,000	24,500
OD	₹501–₹1000	3	2,250	6,000	3,750
OD	Foreign Price	30	90,000	60,000	-30,000
OWN	₹≤500/-	7	1,750	14,000	12,250
OWN	₹501–₹1000	3	2,250	6,000	3,750
OWN	₹1001–₹2000	2	3,000	4,000	1,000
OWN	Foreign Price	49	147,000	98,000	-49,000

CBA per ₹1 Invested (also called Benefit-Cost Ratio (BCR)):

BCR=Total Benefit ÷ Total Cost

A BCR > 1 means positive return (i.e., every ₹1 gives more than ₹1 back). A BCR < 1 means it's not cost-effective.

CBA per ₹1 (Benefit-Cost Ratio)

Selection	Price Group	Books Used	Total Cost (₹)	Total Benefit (₹)	BCR (₹ Benefit / ₹1 Cost)
CL	₹≤500/-	53	13,250	106,000	8.00
CL	₹501–₹1000	26	19,500	52,000	2.67
CL	₹1001–₹2000	10	15,000	20,000	1.33
CL	₹2000>	5	12,500	10,000	0.80
CL	Foreign Price	186	558,000	372,000	0.67
OD	₹≤500/-	14	3,500	28,000	8.00
OD	₹501–₹1000	3	2,250	6,000	2.67
OD	Foreign Price	30	90,000	60,000	0.67
OWN	₹≤500/-	7	1,750	14,000	8.00
OWN	₹501–₹1000	3	2,250	6,000	2.67
OWN	₹1001–₹2000	2	3,000	4,000	1.33
OWN	Foreign Price	49	147,000	98,000	0.67

- Most cost-effective: Books priced ₹≤500/-, with a BCR of 8.00 (every ₹1 yields ₹8 in benefit).
- Break-even or marginally positive: ₹1001–₹2000 group (BCR ~1.33).
- Not cost-effective: Foreign Price and ₹2000> groups (BCR < 1).

Cost-per-usage (simplified):

- ₹≤500/- books: ₹300 × 58 = ₹17,400 for 13 used twice → ~₹1,338 per actual use
- ₹1001–2000: ₹1500 × 11 = ₹16,500 → zero meaningful use → 100% sunk cost
- Foreign books: ₹2000 avg. × 188 = ₹3,76,000 → 65 used twice → ~₹5,785 per repeated use

A cost-benefit analysis (CBA) was conducted to assess the value generated from resource expenditures across three acquisition categories. In this analysis, total usage was used as a proxy for benefit, while estimated total expenditure represented the cost. The calculated CBA ratio was:

CBA = 388 uses ÷ ₹868,000 ≈ ₹0.000447

This implies that each ₹1 spent returns approximately 0.000447 units of benefit, or inversely, that each use costs about ₹2,237. These figures suggest a low return on investment, especially when a substantial portion of the cost comes from high-priced, foreign-sourced materials.

While the CBA and CEI numerically reflect the same result due to identical inputs, CBA emphasizes the economic justification of the spending, suggesting that the costs may not be proportionally justified by the usage. Materials obtained from other departments (OD) exhibited relatively higher CBA values, indicating better returns per rupee spent.

CHAPTER: – 10

FINDINGS

10.1 Usability Analysis of Books Across Disciplines:

An analysis of book usage across various subject areas at Jadavpur University Library reveals distinct patterns of engagement, with notable levels of underutilization in several disciplines. Among 1,366 books from the Bengali collection identified as less used or unused (constituting 5.8% of the total Bengali holdings), 54.46% had never been used, 29.36% were used once, and only 16.18% were used twice. This significant underuse suggests a possible misalignment between the content of these books and the current academic curriculum or a general lack of awareness among users.

The usability data for economics books also indicates uneven engagement. Of the 548 books analysed, 302 (approximately 55%) have never been used, 180 have been used once, and only 66 have been used twice. This reflects a substantial portion of the collection that remains untapped, possibly due to outdated material or insufficient visibility. Nonetheless, the books that are accessed reflect some demand, particularly for titles that align closely with current academic or research needs.

Similarly, the usage of history books points to low levels of engagement. Out of 924 titles, 503 (approximately 54%) have never been used, 282 were used once, and 139 were used twice. This underutilization suggests a need for better

alignment of the collection with user interests, more effective promotion, or updating of materials to reflect contemporary topics and scholarly relevance.

The usage trend of mechanical engineering books reveals a sharp decline in frequency with increased usage count. Of the 257 books, 157 were used only twice, while just 71 were used 12 times, and only 29 reached 22 uses. This pattern suggests selective usage—possibly tied to specific assignments or references—with only a few titles serving as core resources. It highlights the importance of continuously evaluating the collection to ensure alignment with curriculum demands and shifting student needs.

In contrast, the Civil Engineering collection demonstrates high usability. Of the 6,236 books, only 57 (0.91%) were considered underutilized (used fewer than three times), with 30 never used, 19 used once, and 8 used twice. This indicates a well-utilized and relevant collection that effectively supports academic activities.

Mathematics books, however, show a contrasting trend. Out of 714 books, 356 (nearly 50%) have never been used, 217 were used once, and 141 were used twice. This distribution implies that a significant portion of the collection does not currently meet the learning or research needs of the department, underlining the importance of data-driven acquisition and regular review of holdings.

Finally, an evaluation of 388 physics books shows that 209 (53.9%) have never been used, while 179 (46.1%) have been used at least once, including 81 used twice. This suggests moderate engagement with the collection, yet the large number of unused titles reflects the need for improved relevance, accessibility, and strategic curation. Overall, these findings underscore the importance of continual assessment of library resources, user-centered acquisition policies, and targeted promotion to maximize the usability and academic impact of the library's collections.

10.2 Authorship Analysis and Usage Patterns of Books Across Disciplines

This chapter presents an authorship-based analysis of book usage across various disciplines, highlighting the relationship between authorship type and book utilization. The study covers Bengali, Economics, History, Mechanical Engineering, Civil Engineering, Mathematics, and Physics collections, examining how single-author (SA), edited volumes (ED), double authorship (DA), multiple authorship (MA), corporate, and anonymous works differ in usage rates.

In the Bengali collection, single-author (SA) books constitute the majority, comprising 1,196 out of 1,366 titles (approximately 88%). Among these, 544 books (45%) were used at least once, indicating substantial engagement. Edited volumes (ED) form the second largest group with 152 titles, of which 70 (46%) were used at least once, including 28 titles reused twice, suggesting a relatively high reuse rate. Books with double authorship (DA) and multiple authorship (MA) are limited in number (5 and 8 respectively) but exhibit moderate usage, with 60% of DA and 50% of MA books used at least once. Anonymous works are scarce (n = 5) with minimal usage. Overall, while single-author books dominate the Bengali collection in volume, edited and co-authored titles show comparable or slightly higher proportional usage, indicating user preference for collaborative or curated content in certain contexts.

The economics collection reveals significant differences in usability across authorship categories. The largest share consists of 374 single-author (SA) books, but this group shows the highest underutilization: 210 books were never used, 123 used once, and only 41 used twice. Edited volumes (ED; 79 titles) and double authorship (DA; 57 titles) books also exhibit substantial non-usage, with 44 and 31 titles respectively never accessed. Corporate authorship (21 titles) shows nearly half (10) unused. Similarly, multiple authorship (MA; 16 titles) and anonymous (1 title) books have very limited usage. These findings suggest a

broader issue of underutilization, potentially reflecting concerns about content relevance, visibility, or user preferences. The data emphasize the need for more selective acquisitions based on high-impact authors or user-driven recommendations to enhance usability.

In the History collection, single-author books (SA) are most prevalent (689 titles) and show the highest usage rate, with 320 (46.4%) used at least once. Edited volumes (ED; 143 titles) also demonstrate decent usage (41.3%). Double authorship (DA; 38 titles) and multiple authorship (MA; 29 titles) books exhibit moderate usage rates of 44.7% and 34.5%, respectively. Interestingly, anonymous works (19 titles) display high relative usage, with 68.4% (13 titles) accessed at least once, likely due to their unique historical or archival value. Corporate-authored books (6 titles) have the lowest usage, with only two titles used. These patterns suggest that single-author and edited works dominate both acquisition and use, while anonymous works contribute significant academic value. Future acquisitions may benefit from focusing on these formats with demonstrated relevance.

Mechanical engineering books show mixed usage across authorship types. Single-author (SA) books (153 titles) represent the largest group but include many unused items (86). Nonetheless, this category also has the highest numbers of books used once (45) and twice (22), indicating varied engagement. Double authorship (DA; 57 titles) features a significant number of unused books (36) but also some moderately used titles. Edited volumes (ED) and multiple authorship (MA) works are fewer and generally show lower usage. Corporate authorship books (3 titles) mostly see at least one use, whereas the single anonymous work remains unused. These data suggest user preference for individual perspectives, with mixed usage reflecting diverse needs. First editions dominate among less-used books (207 out of 257), with 129 never used, while later editions show better usage, indicating a preference for updated content.

Single-author (SA) books dominate the civil engineering collection and also exhibit the highest inactivity rate, with 41 out of 57 titles unused. However, 21 SA books (51.2%) were used at least once, underscoring their relevance despite underuse. Corporate and edited works have higher proportions of unused items (75% and 66.7%, respectively) and are fewer in number. Overall, single-author books prevail in both quantity and usability, suggesting a user preference or greater relevance for these works within civil engineering.

Mathematics collections are largely comprised of single-author (SA) books (497 titles), which account for the highest usage rate at 69.61%, with 98 books used twice and 154 used once. Despite this, 245 SA books remain unused, indicating variability in relevance or quality. Double authorship (DA) books (119 titles) display more balanced usage, with nearly half (58 titles) used at least once. Edited volumes (ED) and multiple authorship (MA) books are fewer and less used. Corporate and anonymous works contribute minimally. The data underscore the importance of targeted authorship strategies, highlighting single and double authors as key contributors to academic relevance, while also recognizing the efficiency of multi-author and edited works.

Physics books at Jadavpur University Library show differential usage by authorship. Corporate-authored books (11 titles) exhibit relatively high usage, with 9 titles used at least once, reflecting practical relevance. Departmental authorship (DA) and educational (ED) books collectively demonstrate moderate use (41 of 83 and 19 of 50 titles, respectively), supporting academic curricula. Single-author (SA) books (215 titles) experience low usage, with 122 titles unused (57%). Anonymous and smaller categories have negligible use. These findings highlight the value of corporate and departmental contributions, suggesting acquisition strategies should prioritize collaborative and institutionally authored works to optimize relevance and utility.

10.3 Usability Analysis of Books by Place of Publication Across Disciplines

An analysis of the usability of Bengali books based on place of publication reveals a significant disparity between Indian and foreign publications. Of the total 1,366 books, 1,269 (approximately 93%) were published in India, while only 97 (approximately 7%) were foreign publications. Among the Indian titles, 575 (45%) were used at least once, with 200 used twice, indicating moderate engagement. In contrast, 47 out of 97 foreign books (49%) were used at least once, and 21 were used twice. Although foreign books represent a small fraction of the collection, they demonstrate a proportionally higher usage rate compared to Indian publications. These findings suggest that foreign titles may offer unique or higher-demand content that merits closer attention in future acquisition strategies.

The analysis of economics books reveals notable differences in usage between Indian and foreign publications. Of the 548 books analyzed, 237 were foreign and 311 were Indian. Among the foreign titles, 123 (approximately 52%) were never used, 76 were used once, and 38 were used twice. Indian books showed a similar pattern of underutilization, with 179 (approximately 58%) never used, 104 used once, and 28 used twice. While both categories exhibit high levels of non-use, foreign books show slightly better engagement. These findings underscore the need to evaluate both foreign and Indian publications more carefully during acquisition, emphasizing content quality, curriculum relevance, and user demand to enhance overall usability.

In the case of history books, the distribution between foreign and Indian publications is nearly even, with 450 and 474 titles, respectively. Usage patterns are also similar: 210 (46.7%) foreign books and 211 (44.5%) Indian books were used at least once. Nonetheless, a substantial number of titles in both categories remain unused—240 foreign and 263 Indian. This indicates that the place of publication may not significantly influence usage. Instead, selection criteria

should focus on content relevance, academic needs, and user demand to improve engagement with historical literature.

The analysis of mechanical engineering books highlights distinct usage patterns between Indian and foreign publications. Out of 257 total books, 118 were foreign, and 139 were Indian. Among the foreign titles, 58 were never used, while a relatively higher number were used once or twice, indicating better overall usage. In contrast, 99 Indian titles remained unused, reflecting lower engagement. This pattern suggests that foreign publications may be more frequently utilized due to their perceived quality or academic relevance. The data indicates a greater reliance on foreign publications in mechanical engineering, highlighting the need to improve the relevance and accessibility of Indian titles in this subject area.

Among the 57 underused civil engineering books, 34 were foreign and 23 were Indian. While unused titles were similar in number (14 foreign and 16 Indian), foreign publications exhibited higher usage overall. Specifically, 20 out of 34 foreign books (58.8%) were used at least once, compared to only 7 out of 23 Indian books (30.4%). Furthermore, 44.1% of foreign books were used once and 14.7% twice, whereas only 17.4% of Indian books were used once and 13% twice. These findings indicate a trend of greater practical usage for foreign publications in civil engineering.

The usability of mathematics books reveals a significant disparity in both quantity and usage between foreign and Indian publications. Of the 714 titles analyzed, 667 (93.14%) were foreign publications and only 47 were Indian. Among the foreign books, 330 (47.84%) were never used, 206 were used once, and 131 were used twice. Indian titles showed even lower usage: 26 were never used, 11 were used once, and 10 were used twice. Despite their dominance in the collection, foreign books exhibited mixed usability, whereas Indian books were both fewer and less frequently used. This suggests a need to reassess the collection's

composition and prioritize acquiring more relevant and accessible titles from both sources.

At Jadavpur University Library, the usability of physics books shows significant variation based on place of publication. Out of 388 total books, 290 were foreign publications. Of these, 51% had been used at least once, despite a 49% non-use rate. Indian publications, by contrast, had a lower overall usage rate of 32%. This may be attributed to foreign books offering better quality, alignment with academic standards, or more relevant content. Indian books, while more affordable and accessible, showed moderate usage likely due to curriculum alignment. The data supports the need for a balanced acquisition strategy that includes both Indian and foreign titles to meet diverse academic needs and improve usability.

An examination of book usability across different disciplines reveals consistent patterns in relation to the year of publication. In the Bengali collection, books published between 1980 and 2000 demonstrated the highest usage rates, with over 60% used at least once and more than one-third used twice, indicating their alignment with current academic needs. Conversely, books published prior to 1980 and after 2010 had lower usage rates (36% and 35% used at least once, respectively), suggesting limited relevance or visibility.

In Economics, a significant portion of the 548-book collection was published between 1960 and 2009, particularly in the 1970s (n = 114) and 1980s (n = 103). However, only 37 books were published from 2010 to 2019, highlighting a gap in recent acquisitions. This imbalance indicates a need to refresh the collection to maintain academic currency.

The History collection shows highest engagement with books from 1960–1969 (n = 221, with 101 used at least once) and moderate usage in the 1970s. Recent publications (2010–2019) had low usage (11 out of 50), suggesting visibility or

alignment issues, while both very old and very recent books showed minimal engagement.

For Mechanical Engineering, although the largest number of books was from 2010–2019 (n = 75), over 75% remained unused, indicating slow adoption. Older books from the 1970s and 1980s exhibited balanced and consistent usage, reflecting their ongoing value.

Similarly, Civil Engineering books from the 1960s and 1980s were most utilized, with the 1960s showing the highest percentage of use (10 out of 16 used at least once). In contrast, 76.5% of books from 2000–2019 were never used.

In Mathematics, 86.13% of the collection was published between 1950 and 1989, but over half (50.58%) of these titles remain unused. Post-1990 books make up only 5.74% of the collection and are also underutilized, indicating limited alignment with curricular needs.

For Physics, books from 1960–1969 had the highest representation and usage (n = 122), followed by those from 2000–2009 (n = 61) and 1970–1979 (n = 60). However, many older (1900–1949) and newer (2010–2019) books showed limited use, indicating potential misalignment with current research interests or inadequate access strategies. Across all disciplines, mid-to-late 20th-century publications tend to dominate collections and demonstrate the most consistent use, while very recent and very old materials often require re-evaluation in terms of relevance, visibility, and accessibility.

10.4 Edition-wise Usage Analysis of Books Across Disciplines

An analysis of Bengali book usage by edition reveals that first editions overwhelmingly dominate the collection, comprising 1,281 of 1,366 titles (approximately 94%). Among these first editions, 587 books (approximately

46%) were used at least once, including 212 titles used twice, indicating moderate engagement. Subsequent editions are comparatively rare, with second (n = 32) and third (n = 26) editions being the most common among later editions. These newer editions exhibit slightly higher proportional usage—53% of second editions and 35% of third editions were used at least once—suggesting a user preference for more updated or revised content when available. Higher-numbered editions (fourth through eleventh) are few and demonstrate minimal overall usage. These data indicate that although first editions form the bulk of the Bengali collection and receive moderate use, revised editions, despite limited numbers, tend to have higher usage rates proportionally, possibly reflecting greater user interest in more current or refined texts.

In the economics collection, edition-wise usability analysis shows that the vast majority of titles (520 out of 548, or 94.9%) are first editions (e1). However, a significant proportion of these first editions remains unused, with 293 titles (56.3%) never circulated, 169 used once, and only 58 used twice. This suggests total current academic requirements. Other edition categories—including e2, e3, and a small number of e4, e5, e7, e9, and e13 editions—contain fewer titles and show mixed usage levels. The scarcity of revised Bengali editions (e.g., one “e2®” title) also points to limited language diversity and updating within this collection. Overall, the findings highlight a heavy reliance on older, first-edition texts that may no longer be relevant, emphasizing the necessity for periodic updates and acquisition of newer editions to enhance collection usability.

Edition-wise data for history books similarly show a concentration in first editions, which comprise 875 out of 924 titles. Among these, 478 titles have never been used, while 271 and 126 titles have been used once and twice, respectively, indicating underutilization despite collection dominance. Higher editions (e2 to e9) are scarce (total 49 titles) but demonstrate modest usage; for example, second editions include 19 unused titles alongside 16 titles used at least once. This pattern

suggests a lack of frequent updates to the history collection, which could limit its relevance and appeal, underscoring the need to refresh holdings with updated editions to better meet user needs.

Mechanical engineering books are primarily first editions (e1), which constitute 205 titles and also hold the highest count of unused books (127). Nonetheless, a notable portion of first editions was used once (53 titles) or twice (25 titles), showing some engagement. Later editions, such as second editions (e2), though fewer in number (27 titles), exhibit better proportional usage, with fewer unused titles and a higher rate of use once or twice. Editions beyond the second are limited in number and usage. These results indicate a strong acquisition preference for first editions, but a user tendency to favor more recent editions when available, emphasizing the importance of updated editions for enhancing collection relevance.

In civil engineering, first editions dominate (42 of 57 titles, 74%) and are the most frequently used overall. However, they also account for the largest share of unused materials, with 50% never used. Later editions, including e2, e3, e4, and even later editions such as e10 and e17, show mixed usage patterns; some are used once or twice, while others remain unused. This suggests that newer or more comprehensive editions do not necessarily guarantee higher usage and that users may rely heavily on first editions regardless of age or updates.

The mathematics collection is similarly dominated by first editions (659 out of 714 books, 92.02%), with a substantial number unused (337 titles), 194 used once, and 128 used twice. This pattern implies many first editions may be outdated or less relevant to current academic needs. Later editions, including second and third editions, contain fewer titles but show a relatively more balanced usage distribution. Editions e4 through e7 are minimally represented, indicating limited acquisition of revised or newer versions. Overall, the findings suggest a dependence on first editions that may not fully satisfy user demand, highlighting

the importance of acquiring updated editions to improve collection usability and relevance.

The physics collection at Jadavpur University Library is also dominated by first editions (e1), comprising 343 titles. A significant number remain unused (186), though many have been used once (87) or twice (70), indicating mixed engagement with this edition. Later editions, such as the third edition (e3), show better usability proportions, with 5 out of 10 titles used at least once. Other editions (e2 to e8) have very small representation and sporadic usage, limiting firm conclusions. The data suggest that although first editions constitute most of the physics collection, newer editions may offer enhanced relevance and content currency, highlighting the need for regular collection updates to improve academic support and user satisfaction.

10.5 Edition-Year wise Usability Analysis of Books Across Disciplines

A cross-disciplinary, edition-year-wise analysis of book usability across departments at Jadavpur University reveals a consistent and pronounced institutional dependence on first editions, highlighting important implications for collection development policy. In the case of Bengali books, the 1st edition overwhelmingly dominates usage across more than a century, with peak use occurring between 1980 and 1999 (N = 771). The limited and inconsistent adoption of later editions, even as they became available, suggests curricular inertia and underscores the need for policies that encourage periodic reviews and proactive inclusion of updated or alternative texts.

Similarly, Economics books demonstrate a marked reliance on the first edition, which accounts for 94.9% of total usage (N = 520 out of 548). This pattern is particularly concentrated during the 1960–1979 period, reflecting the edition's strong integration into the academic framework of the time. The negligible uptake

of subsequent editions raises concerns about the integration of newer scholarship and calls for deliberate acquisition strategies that support the incorporation of evolving economic thought and contemporary texts into the collection.

In History, the first edition also dominates, with 875 out of 924 usages, particularly in the decades of 1960–1969 and 1970–1979. Despite the presence of later editions, their minimal usage reflects a collection lag that risks overlooking recent historiographical developments. A well-informed collection development policy should prioritize the balance between historical core texts and more current, diverse perspectives to meet evolving academic standards.

For Mechanical Engineering, first editions represent 61% of total usage (N = 157 out of 257), with recent decades (2000–2019) still showing high engagement. While newer editions are used to a limited degree, the dominant reliance on foundational texts suggests the necessity for policies that actively introduce updated editions, especially in technical disciplines where rapid advancements require regular curricular alignment with industry standards.

In the Civil Engineering collection, first editions again account for the majority of usage (42 out of 57 instances), with sporadic engagement with newer editions. The continued relevance of older texts may reflect comprehensive content or curricular inertia. Nevertheless, collection policies should encourage systematic updates to reflect innovations in infrastructure, environmental standards, and construction technologies.

The trend continues in Mathematics, where the first edition accounts for 659 of 714 total uses. The strongest engagement occurred from 1960 to 1979, and later editions show only marginal usage. While foundational materials in Mathematics retain pedagogical value, collection development must also prioritize recent publications that reflect current research and educational methodologies.

Lastly, Physics books show a similar usage profile: 343 of 388 instances are attributed to the first edition, with peak activity during the 1960s and continued high use through 2019. The low adoption of newer editions suggests limited refreshment of academic content. Collection policy should therefore emphasize the procurement of up-to-date resources to support curriculum modernization and pedagogical diversity.

10.6 Selection Source and Usability of Books Across Disciplines

An analysis of the selection sources and usability of Bengali books reveals distinct patterns related to acquisition methods. The majority of the collection (n = 816) was selected by the Central Library or through general library acquisition processes, with approximately 49% (n = 396) of these books used at least once. Books selected directly by the Bengali department (n = 435) demonstrated a slightly lower engagement rate, with 41% (n = 177) used at least once and 57 used twice, indicating a more targeted and relevant selection process. Conversely, books acquired from other departments or unspecified sources (n = 100) and gifts (n = 15) showed lower usage rates, with 44% and 33% respectively used at least once. These findings suggest that although the Central Library accounts for the bulk of acquisitions and maintains steady usage, selections made by the subject department appear to align more closely with user needs, underscoring the value of subject-specific involvement in building a more usable and relevant collection.

In the economics collection, the analysis of selection sources highlights significant differences in usability contingent on the selecting entity. Of the 548 books, the majority (n = 343) were acquired by the Central Library or general selection committees (CL/LIB GEN), while only 70 titles were chosen by the Economics Department, and 135 by other departments. This distribution suggests that most acquisitions occurred without direct subject specialist input. Given the

overall underutilization noted within the economics collection, these results imply that materials selected by the Economics Department tend to be more relevant and better aligned with curricular and research needs. Consequently, enhancing the involvement of economics faculty in the selection process could improve the collection's usability and academic value.

The selection source analysis of history books similarly reveals disparities in engagement. Most titles (n = 626 of 924) were selected by the Central Library or through general acquisitions, yet over half of these (n = 341) remain unused, reflecting low engagement despite their prevalence. Books selected by the History Department (n = 135) showed higher relative usage, with 63 titles used at least once, indicating better alignment with user interests and curriculum requirements. Titles selected by other departments (n = 163) also demonstrated moderate usage, with 73 titles used at least once. Specifically, the History Department's selections had the highest usage rate (47.4%), compared to 46.5% for Library General selections and 44.8% for other departments. Despite this, over half of the total titles remain unused, suggesting a need for more selective, demand-driven acquisition strategies. The consistent usage patterns across selection groups imply that when materials are well-matched to academic needs, they tend to be repeatedly used.

In the mechanical engineering collection, the majority of books (n = 178) were selected by the Central Library; however, a large portion (n = 115) of these remain unused, indicating that many centrally selected books may not adequately meet user needs. Conversely, books chosen by other departments (n = 73) exhibited lower numbers of unused titles (n = 39) and relatively higher usage (n = 28 used once), suggesting better alignment with interdisciplinary or targeted needs. The smallest group, books selected by the Mechanical Engineering Department itself (n = 6), all showed some usage, reflecting a high degree of relevance to departmental requirements. These findings highlight that while the Central

Library holds the majority of books, departmental selections—though fewer—tend to be used more effectively, emphasizing the importance of subject-specific selection for improving collection usability.

For civil engineering, the Central Library contributed most materials (n = 40 of 57), yet more than half (52.5%, n = 21) were never used, implying a possible disconnect between centrally selected resources and user needs. In contrast, items selected by the Civil Engineering Department (n = 12) demonstrated notably higher usability, with 50% used at least once and 25% used twice. Books selected by other departments (n = 5) exhibited minimal usage. These results indicate that department-level selection, particularly by civil engineering faculty, leads to more relevant and frequently used materials, reinforcing the value of subject-specialist involvement in acquisition decisions.

In mathematics, materials selected by the Central Library or general librarian committees accounted for the largest number of unused books (n = 239), though they also contributed significantly to items used once (n = 139) and twice (n = 103), suggesting broad but somewhat diffuse relevance. Books selected by other departments or through on-demand (OD) requests showed the lowest usage across all categories, with only 33 unused, 25 used once, and 8 used twice. In contrast, books chosen by the Mathematics Department itself exhibited a better usage ratio, with 84 unused, 53 used once, and 30 used twice, indicating that departmental selection is more closely aligned with user needs. These findings emphasize the importance of subject specialist involvement in the selection process to enhance collection relevance and usability.

The usability of physics books at Jadavpur University Library also varies with selection source. Central Library selections (n = 280) comprise the largest portion of the collection but also account for the highest number of unused titles (n = 159), indicating that many centrally selected books may not meet user needs. Books selected by other departments (OD) and those selected by the Physics

Department itself (OWN) demonstrate higher usage rates. Specifically, the OWN selection group shows the highest proportion of books used at least once (34 of 61 titles), highlighting the advantage of subject specialist input in acquiring more relevant materials. Notably, 74% of all underused books were acquired by the Central Library, whereas departmental and other department acquisitions better align with user demands. These data underscore the effectiveness of decentralized acquisition strategies in improving collection relevance and user satisfaction.

10.7 Price and Usage Correlation of Books Across Disciplines

An analysis of Bengali book usability by price range indicates that the majority of the collection (n = 1,015 of 1,366 titles, approximately 74%) falls within the lowest price bracket of ₹1–100. Within this group, 44% (n = 445) were used at least once, reflecting moderate engagement despite their lower cost. Books priced between ₹101–200 (n = 213) showed slightly higher proportional usage, with 49% (n = 104) used at least once. Titles in the ₹201–300 range also demonstrated reasonable usage (47%), while books priced above ₹300 were fewer and exhibited mixed patterns. Notably, books in the ₹401–500 range had the highest relative usage, with 14 of 16 titles (87.5%) used at least once, suggesting that moderately priced books may be perceived as higher in value or relevance. In contrast, the most expensive category (₹700–1000) had very limited usage. Overall, while lower-priced books dominate numerically, mid-range priced titles tend to show higher proportional usage, potentially reflecting a balance between cost and content quality or relevance.

The economics collection similarly reveals a correlation between price and usability patterns. The largest segment consists of affordable books priced at or below ₹500 (n = 268), of which over 55% (n = 149) have never been used, and only 26 titles have been used twice. Books categorized as “Foreign Price” (n =

212) also experience high underutilization, with 106 titles unused. Among mid-price books (₹501–1000), 38 of 50 remain unused, indicating poor engagement despite moderate cost. Interestingly, the highest price group (≥ ₹2000), though small (n = 8), shows better usage with 6 titles used at least once. This suggests that higher-priced books, though fewer, tend to be more selectively acquired and possibly more relevant or higher quality, resulting in better utilization. These findings indicate that neither low price nor volume alone guarantees usability; instead, investment in fewer but more relevant, high-quality titles may improve resource utilization.

The history collection demonstrates a notable relationship between price and usage. The majority of books fall under lower price categories, with 429 titles priced below ₹500 and 410 classified as "Foreign Price," together accounting for approximately 91% (n = 839) of the total 924 titles. Both groups exhibit similar usage rates, with about 48% of titles used at least once, suggesting comparable utilization between lower-cost and foreign-priced books. Conversely, higher-priced books—₹500–1000 (n = 75), ₹1000–2000 (n = 7), and above ₹2000 (n = 3)—are fewer and show significantly lower usage; for example, only 21 of 75 books in the ₹500–1000 range were used at least once, and none of the books priced above ₹1000 have been used more than once. This pattern suggests a weak or inverse correlation between price and usage, potentially due to limited accessibility, specialized content, or low demand for higher-priced materials. These results emphasize the importance of cost-effective acquisitions, as lower-priced books are both more numerous and more frequently used, offering better value and return on investment.

Further analysis reveals that 61% of the collection (n = 157 of 257) remains unused. Foreign-priced books constitute the largest segment (n = 118) and demonstrate the highest usage, with 43 used once and 17 used twice. In contrast, books priced below ₹500, the second-largest group (n = 72), have a majority

unused (n = 48). Books priced between ₹500–1000 and ₹1000–2000 show lower numbers and poor usage, particularly in the ₹1000–2000 range where 4 of 5 books remain unused. These findings suggest that although foreign-priced books are better used, a large proportion of low-cost books are underutilized, indicating potential misalignment between price-based selection and user demand. Approximately 44.36% of less-used books are foreign-priced, raising concerns about cost-effectiveness. Among Indian editions, most unused books fall into the low to medium price range (₹501–1000), with no high-priced Indian editions found unused.

In mathematics, a contrasting trend emerges. Foreign-priced books (n = 649) show nearly 50% unused (n = 322) and only 125 used twice, indicating poor cost-efficiency. Conversely, lower-priced books (₹500 or below, n = 61) demonstrate higher proportional usage, with over 47% used at least once. This suggests a weak or negative correlation between price and utilization, highlighting potential inefficiencies in investing heavily in expensive foreign publications.

Physics book usage at Jadavpur University Library also shows correlation with price. Books priced at ₹500 or below (n = 388) exhibit the highest usage, with 74 titles used, followed by those priced ₹501–1000 with 32 titles used. Usage sharply declines for higher price categories: ₹1001–2000 (12 used) and above ₹2000 (5 used). Foreign or imported editions form the largest group (n = 265) and demonstrate the highest usage rate (54%). Domestically priced books, particularly those in the ₹501–2000 range, show low to negligible usage, suggesting a preference or academic necessity for international editions despite cost barriers.

10.8 Cost Effectiveness of Book Collections by Discipline

The Cost Effectiveness Index (CEI) serves as a measure of how efficiently financial resources invested in the Bengali book collection translate into actual usage by patrons. Out of a total of 1,366 Bengali books, 622 titles (45.5%) were

used at least once, indicating moderate engagement relative to the collection size. Given that the majority of these books are priced in the lower ranges (₹1–100 and ₹101–200), the CEI suggests that the library's expenditure on affordable materials yields reasonable user interaction. However, the high proportion of unused books (54.5%) highlights potential inefficiencies, emphasizing the need for continuous evaluation of acquisition strategies to improve cost effectiveness by prioritizing titles with demonstrated demand and academic relevance.

For the economics collection, the CEI reveals approximately 0.627 uses per 1,000 rupees spent. This indicates that for every thousand rupees invested, fewer than one usage event occurs, reflecting low engagement relative to expenditure. The underutilization may be attributed to factors such as outdated content, poor alignment with current academic curricula, or limited awareness among users. Enhancing the collection's relevance and visibility could increase usage rates and improve the cost-effectiveness of acquisitions.

In the history book collection, cost-effectiveness is most pronounced in the under ₹500 price category, which exhibits the highest usage rates across all selection groups. Nearly half of the books in this category have been used at least once, with over 15% experiencing multiple uses, suggesting strong academic value at low acquisition costs. Foreign-priced books, although more expensive, also demonstrate moderate and consistent usage, particularly when selected with faculty input and curricular alignment. This underscores the importance of ensuring academic relevance to justify higher costs. Conversely, mid- and high-price categories show diminishing returns on investment, with substantially lower usage despite higher expenditures, indicating inefficiencies when acquisitions are not strategically targeted.

The CEI analysis for the Mechanical Engineering collection shows moderate effectiveness for books priced below ₹500, with 24 of 72 books (33.3%) used at least once. The Foreign Price category exhibits the highest CEI, with 60 of 118

books (50.8%) used at least once and 17 used multiple times. These findings suggest that although foreign-priced books are costlier, they tend to be more relevant and frequently used, likely due to their specialized content aligned with departmental academic requirements.

In the Civil Engineering collection, CEI reveals disparities in usage relative to cost. Foreign-priced books demonstrate higher user demand and better cost justification, with 20 of 33 titles used at least once. In contrast, Indian editions priced below ₹500 show poor usage, with 14 of 16 titles unused. This indicates that while lower-cost books are more affordable, they may not adequately meet user needs, leading to inefficient library spending.

For Mathematics, the CEI reflects the relationship between expenditure and use. Foreign-priced books dominate the collection (649 of 714 titles), but only about half (n = 327) have been used at least once, suggesting lower cost-effectiveness. Conversely, books priced ₹500 or below, although fewer (n = 61), show better usability, with 47.5% (n = 29) used and a higher proportion experiencing multiple uses. This suggests that lower-priced books may offer similar or better value per unit cost compared to expensive foreign editions.

The Physics collection further underscores the importance of balancing price with usage. Books priced ₹500 or below demonstrate higher CEI, indicating more efficient use of library funds relative to more costly foreign editions. This suggests that allocating resources towards affordable titles may maximize return on investment in terms of user engagement. Nonetheless, maintaining a curated selection of high-value foreign and expensive books remains necessary to support advanced research needs, despite their lower usage statistics.

10.91 Cost-Benefit Analysis of Book Collections by Discipline

The Cost-Benefit Analysis (CBA) of the Bengali book collection examines the relationship between acquisition costs and usage benefits. Results indicate that most Bengali books are low-cost, with approximately 74% priced between ₹1 and ₹100. These lower-priced books exhibit moderate usage, with about 44% of titles used at least once. Books in the mid-price range (₹101–200) show higher proportional usage (approximately 49%), while books priced between ₹401 and ₹500 demonstrate the highest relative usage rate at 87.5%. This pattern suggests that moderate investment in select titles yields better returns in terms of user engagement. Therefore, the CBA recommends a balanced acquisition strategy that combines affordable bulk purchasing with targeted investment in mid-priced, high-demand titles to optimize the collection's overall value and impact.

Further CBA findings reveal that the monetary value derived from the use of Bengali books represents only about 6.3% of the total investment. Assuming each usage event contributes a value of ₹100, the total benefit falls substantially short of the costs incurred in acquiring the books. This low return on investment underscores the necessity for more strategic acquisition policies focused on demand-driven purchasing, regular usage assessments, and the removal of underperforming titles to enhance cost-effectiveness and better support academic objectives.

In the history book collection, the CBA highlights the importance of strategic, faculty-driven selection in maximizing acquisition benefits. Low-cost books deliver the greatest return by meeting core curriculum needs for a large user base at minimal expense. Foreign-priced books, though costlier, provide reasonable benefits when selected to support specialized or interdisciplinary academic programs. Conversely, mid- and high-cost books (priced ₹500 and above) often fail to justify their expense unless there is demonstrable demand or direct curricular relevance. These findings emphasize that the value of each book should

be assessed not solely by cost but through a combination of usage metrics and educational alignment. Implementing a rigorous CBA framework, incorporating faculty recommendations and curricular integration, can guide more sustainable and impactful collection development.

The CBA of the Mechanical Engineering collection indicates that low-cost books (under ₹500) offer affordable access but yield limited academic return due to a lower usage rate of 33.3%. In contrast, foreign-priced books, despite their higher cost, provide better academic value as reflected in their higher and repeated usage. Mid-priced books (₹500–₹1000) demonstrate the lowest benefit, with only 24.2% (15 out of 62) used at least once. High-cost books in the ₹1000–2000 range show minimal usage (one out of five titles used), suggesting limited cost-benefit unless they align closely with specific course requirements. Overall, CBA findings suggest that carefully selected, high-quality foreign titles offer the best academic returns.

From a broader perspective, CBA indicates more favourable returns on investment for foreign-priced books, which, despite higher acquisition costs, contribute more significantly to user engagement. Books priced between ₹501 and ₹1000 show moderate usage and may offer a balanced cost-benefit ratio. However, the poor usage of books priced below ₹500 and underutilization of certain mid-priced Indian editions indicate inefficiencies in collection development. The single title in the ₹1001–2000 category was used twice, suggesting a high value per unit despite its rarity. These results underscore the importance of a data-driven acquisition strategy that balances cost with projected usage to maximize resource efficiency.

Regarding Mathematics collections, CBA reveals a potential mismatch between investment and utility. Although a substantial portion of funds is allocated to foreign-priced books, a large number remain unused (322 titles). In contrast, locally priced books, though fewer, demonstrate more balanced usage patterns.

For example, half of the ₹501–₹1000 priced books (only four titles) were used at least twice. These findings suggest reassessing purchase priorities to favor locally or moderately priced resources that align more closely with user needs and provide better returns on investment.

From the Physics collection standpoint, CBA suggests that investments in foreign-priced books, despite high acquisition costs, yield significant benefits in terms of user engagement and academic support. Lower-priced books also offer good value by enhancing access equity and broader utility. However, the underutilization of books in the ₹1001–2000 and above ₹2000 price bands indicates poor cost-effectiveness, necessitating more selective acquisitions in these categories. A refined selection strategy emphasizing high-utility, lower-cost Indian editions alongside carefully chosen high-demand foreign titles would optimize both cost efficiency and user satisfaction.

10.92 Conclusion

The comprehensive analysis of book usage and collection development at Jadavpur University Library reveals significant insights into the dynamics of academic resource engagement across diverse disciplines. The study highlights notable disparities in book utilization, shaped by factors such as subject relevance, authorship, publication origin, edition currency, selection sources, and cost considerations.

A recurring theme is the misalignment between existing collections and current academic needs, particularly in subjects like Bengali, Economics, History, Mathematics, and Physics, where a large proportion of materials remain unused. This underutilization points to gaps in relevance, visibility, and user awareness that hinder effective resource utilization. In contrast, technical disciplines such as Civil and Mechanical Engineering demonstrate higher engagement, especially with updated, curriculum-aligned, and institutionally selected resources.

Authorship patterns underscore the preference for single-author and collaboratively edited works, with corporate and institutionally authored materials favoured in applied sciences. The place of publication also influences usability, as foreign titles tend to offer greater academic value in scientific and technical fields, while Indian publications remain indispensable in humanities and social sciences. Furthermore, the predominance of first editions and older publications, coupled with low usage of recent and revised editions, reflects a need for more dynamic and timely collection updates.

Crucially, the study affirms that active involvement of academic departments in selection processes significantly enhances collection relevance and usage. Cost analysis reveals that financial investment must be strategically balanced against academic value, with data-driven acquisition policies needed to optimize returns and avoid wastage through indiscriminate purchasing.

In essence, the findings advocate for a responsive, user-centred, and evidence-based approach to collection development at Jadavpur University Library. By prioritizing curricular alignment, engaging faculty expertise, integrating current editions and digital resources, and continuously monitoring usage and cost-effectiveness, the library can evolve into a vibrant academic hub that effectively supports the university's educational and research mission.

10.93 Recommendations

Based on the findings of the evaluation of the collection at Jadavpur University, the following key recommendations are proposed to enhance its relevance, accessibility, and academic utility:

1. **Implementation of a Comprehensive Written Collection Development Policy**

   A well-structured and documented Collection Development Policy is essential for the Jadavpur University library. This policy should encompass various selection and acquisition guidelines, including:

   - **Book Selection Policy –** Criteria for acquiring print books based on relevance, demand, and academic requirements.
   - **E-Book Selection Policy –** Guidelines for selecting electronic resources that support research and learning.
   - **Gift Collection Acquisition Policy –** Standards for accepting donated materials, ensuring their alignment with library needs.
   - **Journal Selection Policy (Print & Online) –** Framework for evaluating and acquiring scholarly journals in both formats.
   - **Non-Book Materials Selection Policy –** Criteria for selecting audiovisual materials, microforms, maps, and other media.
   - **Government Document Collection Policy –** Guidelines for acquiring and maintaining government publications.
   - **Weeding Policy –** Although already implemented, it requires a clearer articulation of its criteria and process.
   - **Writing-off Policy –** Procedures for deaccessioning outdated or damaged materials effectively.
   - Purchase Policy
   - Vendor Selection Policy

A well-defined and transparent Collection Development Policy will enhance the library's efficiency, ensure balanced resource management, and support academic excellence**.**

2. **Vision and Mission-Based Collection Development**

For a library to effectively support academic and research objectives, its Collection Development Policy (CDP) must be continuously revised in alignment with curriculum updates. A dynamic, mission-driven approach ensures that materials remain relevant and impactful.

a. Alignment with Departmental Vision and Mission

Each department has unique academic goals and priorities, which should be reflected in the selection of library resources. The acquisition process should prioritize materials that support the department's vision and contribute to its long-term objectives.

b. Integration with Curriculum Revisions

Library collections should evolve in parallel with curriculum changes to maintain relevance. Whenever courses are updated, introduced, or discontinued, corresponding adjustments should be made to ensure that resources meet the evolving needs of faculty and students.

c. Selection Criteria Based on Academic Goals

Items should be selected with a clear understanding of:

- ❖ Core subjects and emerging fields within the discipline.
- ❖ Research priorities and faculty expertise.
- ❖ Student learning outcomes and skill development requirements.

d. Maintaining Parity Between Curriculum and Collection

To prevent gaps or redundancies, the selection process must establish a structured review system where educators and library professionals collaborate to ensure balanced coverage across all subject areas.

e. Regular Review and Amendments

Periodic evaluations of the CDP should be conducted, incorporating stakeholder feedback, academic trends, and technological advancements. This will create an adaptive and future-proof collection strategy.A vision-driven approach enhances resource relevance, fosters academic excellence, and strengthens institutional objectives.

3. **Adopt a Demand-Driven Collection Development Strategy**

   Future acquisitions should be guided by user demand, particularly through regular consultations with faculty and students. The study indicates that faculty-selected books exhibit higher usage rates, underscoring the importance of academic involvement in collection building.

4. **Prioritize Updated and Revised Editions**

   Emphasis should be placed on acquiring later or revised editions rather than retaining outdated first editions. The data demonstrate that later editions are more frequently used, suggesting that updated content better meets academic and curricular requirements.

5. **Implement Systematic Weeding of Low-Use Materials**

   A structured weeding policy should be instituted to remove obsolete, redundant, or seldom-used books, particularly first editions and other underutilized titles. This will free up space for more relevant and in-demand materials.

6. **Enhance the Promotion of Recently Acquired Books**

   Increased efforts are needed to promote newer titles through displays, digital newsletters, and library orientation programs. The underuse of post-2010 publications may be attributed to limited user awareness or insufficient promotion.

7. **Encourage Interdisciplinary Selection Involvement**

   Selection input from related academic departments—such as History, Philosophy, and Cultural Studies—should be solicited where applicable. Books selected by departments outside Bengali studies demonstrated higher usage in specific price ranges, indicating broader academic relevance.

8. **Optimize Budget Allocation Toward Mid-Priced Titles**

   Resource allocation should favour mid-priced books (₹200–₹500), which showed consistently higher usage efficiency. In contrast, high-cost books (above ₹700) had significantly lower usage, potentially due to their specialized nature or cost constraints.

9. **Establish Clear Guidelines for Accepting Gifted Books**

   A formal policy should be developed for the evaluation and acceptance of gifted materials. Since gifted books recorded minimal usage, their inclusion should be based on relevance, academic value, and user interest.

10. **Strengthen Faculty–Library Collaboration**

    Regular, structured collaboration between the library and faculty members of the departments should be institutionalized for selection and deselection processes. This would ensure that the collection remains aligned with current teaching and research priorities.

11. **Improve Access and User Education**

    The library should implement strategies to increase visibility and accessibility of both older and newer titles. These may include subject-specific guides, improved catalogueuing, and user orientation programs. Enhanced user awareness is essential for maximizing resource utilization.

12. **Institutionalize Periodic Collection Usage Evaluation**

    The library should conduct regular assessments of book usage as part of its collection management practices. Periodic evaluation will enable data-

driven decision-making and ensure the collection evolves in response to user needs and academic developments.

13. Budget Provision for Books and Fund Allocation

The university budget should include a dedicated provision for books. While the budget book does allocate funds for the purchase of journals and periodicals—both traditional and online—as well as e-books, there appears to be no specific funding set aside for other essential items, particularly the purchase of books. This omission should be addressed to ensure comprehensive academic resources for students and faculty.

To ensure equitable resource distribution, the university budget should explicitly include an allocation for book purchases. This will:

- Support faculty teaching and research requirements.
- Expand subject coverage across disciplines.
- Provide updated editions of core academic texts.
- Complement electronic resources with print alternatives for diverse learning preferences.

A structured approach to fund allocation is necessary to optimize collection development. This could involve:

- **Percentage-based Budgeting** – Setting a fixed percentage of the library budget for books.
- **Subject-Specific Allocation** – Distributing funds based on departmental needs.
- **Annual Review & Adjustments** – Evaluating usage data to refine future allocations.

The university should consider revising its financial policies to formally incorporate a Book Fund within the annual budget framework. Stakeholder consultations, including faculty, students, and library professionals, can help define precise funding requirements. Ensuring dedicated funding for

book acquisitions will enhance the library's role as a robust academic resource hub.

14. A consistent and unhindered flow of funds is imperative to support sustained growth, resource acquisition, and service delivery within the library system.
15. Equitable budget allocation among different types of library resources is necessary to maintain balanced development and support diverse user needs.

These recommendations are intended to support the development of a dynamic, user-centred collection development policy. By aligning acquisitions with academic priorities and regularly assessing usage patterns, the Bengali literature collection at Jadavpur University can be optimized to serve its teaching and research communities more effectively.

CHAPTER – 11

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