



STUDY OF NDLI'S E-RESOURCE IN THE FIELD OF MANAGEMENT STUDIES

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ABSTRACT:

The National Digital Library of India (NDLI), developed by the Indian Institute of Technology, Kharagpur, and sponsored by the Ministry of Education, Government of India, aims to provide free and seamless access to educational resources through a single-window platform. Supported under the National Mission on Education through Information and Communication Technology (NMEICT), the initiative ensures that learners have access to a vast repository of academic materials. This paper focuses on the availability of e-resources related to management disciplines within the NDLI.

Keywords: *Digital Library, NDLI, MoE, NMEICT, NDLI India App, IIT Kharagpur*

INTRODUCTION:

Rapid advancement of digital technology has revolutionized the way educational resources are accessed and utilized. The **National Digital Library of India (NDLI)**, an initiative by the **Ministry of Education, Government of India**, and developed by **IIT Kharagpur**, aims to provide a comprehensive digital repository of academic content. NDLI serves as a single-window platform offering free access to a vast collection of educational materials, catering to students, researchers, and educators across various disciplines.

As part of the **National Mission on Education through Information and Communication Technology (NMEICT)**, NDLI enhances learning opportunities by integrating a wide range of e-resources, including books, research papers, theses, and multimedia content. The platform is designed to support learners from different backgrounds by providing multilingual access and mobile compatibility, ensuring accessibility across diverse user groups.

This study focuses on the **e-resources related** management within NDLI, exploring their availability, accessibility, and impact on learners. Additionally, it highlights the significance of awareness programs, digital

literacy initiatives, and technical improvements in maximizing the effective utilization of NDLI's resources.

DIGITAL LIBRARY:

A **digital library** is a collection of resources stored in digital formats and accessed through computers. These digital materials can be stored locally or retrieved remotely via computer networks. Essentially, a digital library serves as an electronic repository of both real and virtual resources, which may be accessed from different locations.

Digital information refers to data stored in binary form (0s and 1s) and accessed through computers and **Information and Communication Technology (ICT)**. A digital library not only facilitates the storage and retrieval of information online and offline but also performs systematic functions similar to a traditional library, such as cataloguing, collecting, disseminating, and preserving information for long-term use. Digital libraries provide electronic content that can be accessed through both online and offline modes. One of the best examples of a digital library is the **National Digital Library of India (NDLI)**, which offers a vast repository of educational resources to learners, researchers, and educators.

OBJECTIVES:

1. To study the e-resources associated with management available at NDLI.
2. To provide insight into the effectiveness of NDLI's e-resources for management education while acknowledging these constraints.

RESEARCH METHOD AND DATA COLLECTION:

The study employs a mixed-methods, integrating both qualitative and quantitative to analyze the accessibility, usability and effectiveness in the field of management studies. The data was observed and retrieved from the website of National digital library of India.

SCOPE AND LIMITATION:

- This study focuses on evaluating the e-resources available on NDLI in the field of management studies.
- Examine the integration of NDLI e-resources into educational curricula and their usability for academic institutions.
- This study only considered resources available on NDLI.

- It does not explore e-resources in the other fields beyond management.
- The study limited to available e-resources related higher education on NDLI.

DATA ANALYSIS AND FINDINGS:

The data and observation were taken from the website of NDLI and analysis accordingly.

The different tabs and information are available on the dashboard of NDLI. The tabs and information are Browse, Search, Video (Hindi), Video (English), Disability Knowledge, NDLI Club, Language, Log-in, Bulk Registration.

Browse:

NDLI provides a single-window search facility for all digital resources to act as a one-stop shop. Information can be personalized based on the language preferences, education level, media content and difficulty level. And it is open access for 24 X 7. NDLI India contents are available in different forms such as text, video, audio, image, simulation and presentation. One can choose the desired format to retrieve particular materials. NDLI contents are classified into five categories based on their accessibility to the user. View of the contents, full text or not, is restrict by the source organization. While many organizations provide full text access to all their content, many would like to restrict it in some way or the other. When you look at an icon with each document indicates its accessibility.

- **Open (🔓):** Full-text is available to all registered users.
- **Limited (🔒):** Partial text is accessible, but full-text requires authorization from the source authority.
- **Subscribed (🔑):** Full-text is available to institutions with a subscription to the source.
- **Authorized (🔒):** Access to full-text requires authorization from the source authority and a special login.
- **NDLI (👤):** All content is freely accessible in full-text mode upon logging into NDLI.

The content in NDLI can be browsed by Subject, Resource Type, Content Providers, and Educational Levels. And the finding limited to management (higher education) related e-resources are as follows.

1. Brows by Subject:

The content related with Higher Education has shown here.

Table No. 1: Brows by Subject

Sr. No.	Subject	No. of Contents	%
1	Natural Science and Mathematics	214800	40.89
2	Technology	170200	32.40
3	Social Science	59300	11.29
4	Computer Science, Information and General works	44100	8.40
5	Literature & Rhetoric	9600	1.83
6	Arts, Fine & Decorative Arts	8500	1.62
7	History and Geography	6300	1.20
8	Philosophy and Psychology	6100	1.16
9	Language	6000	1.14
10	Religion	398	0.08
	Total →	525298	100

The table presents the distribution of digital content across various subject categories in NDLI. The key findings from the data are as follows;

Dominance of Natural Science and Mathematics:

- The **Natural Science and Mathematics** category holds the largest share, accounting for **40.89%** of the total content (**214,800 items**).
- This suggests a strong focus on scientific and mathematical resources, possibly reflecting high demand and extensive research in these fields.

Significant Presence of Technology:

- The **Technology** category follows closely, contributing **32.40%** (**170,200 items**) of the total content.
- This indicates a robust collection of technological resources, likely catering to engineering, applied sciences, and innovation-focused studies

Moderate Representation of Social Sciences and Computer Science:

- **Social Science** holds **11.29%** (**59,300 items**), showing a substantial presence but significantly lower than Natural Sciences and Technology.
- **Computer Science, Information, and General Works** account for **8.40%** (**44,100 items**), highlighting the importance of computing-related subjects, though they are less dominant than core sciences and engineering.

Lower Representation of Arts, Humanities, and Language:

- **Literature & Rhetoric** (1.83%), **Arts, Fine & Decorative Arts** (1.62%), **History and Geography** (1.20%), and **Philosophy and Psychology** (1.16%) have significantly lower content representation.

- **Language** contributes **1.14%**, indicating a relatively small focus on linguistic resources.

Minimal Content in Religion:

- The **Religion** category has the lowest representation, accounting for just **0.08% (398 items)**.
- This suggests either a lower demand for religious studies or limited digital availability of resources in this domain.

FINDINGS:

The distribution of digital content in NDLI shows a strong emphasis on **STEM fields (Science, Technology, Engineering, and Mathematics)**, which collectively make up over **80%** of the total resources. While Social Sciences and Computer Science have a noticeable presence, subjects related to Arts, Humanities, and Religion are comparatively underrepresented. This suggests a possible need for expanding digital content in these areas to ensure a more balanced academic resource collection.

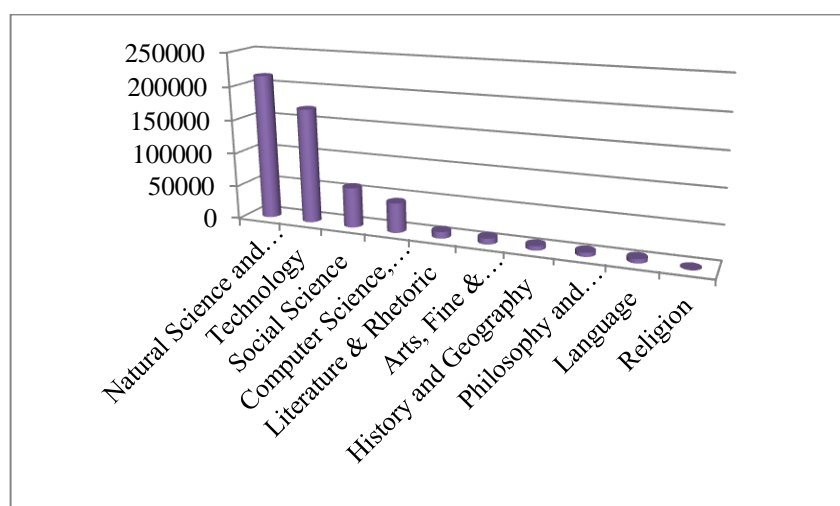


Figure No. 1: Brows by Subject

Types of the E-resources in NDLI Related Management Studies:

NDLI offers digital versions of traditional items along with a wide range of other digital content, including text, images, videos, audio, presentations, applications, simulations, animations, and dataset.

NDLI offers 170200 contents of Technology subject in higher education while, **16,363** content resources related to Management and Auxiliary Services. This section focuses on and discusses various search strategies as outlined below;

Table No. 2: Types of the E-resources in NDLI Related Management Studies

Sr. No.	Resources Types	No. of Content Related Management	(%)
1	Article	5400	33
2	Video Lecture	4500	27.50
3	Lecture Notes	3300	20.17
4	Self-Assessment	1400	8.56
5	Chapter	762	4.66
6	Transcript	702	4.29
7	Book	118	0.72
8	Web Course	103	0.63
9	Question Set	30	0.18
10	Question Paper	14	0.09
11	Solution	20	0.12
12	Collection	6	0.04
13	Source Code	5	0.03
14	Course Material	3	0.01
	Total -->	16363	100

The table provides a breakdown of digital resources related to **Management and Auxiliary Services** in NDLI. The key insights from the data are as follows:

Dominance of Articles and Video Lectures:

- **Articles** form the largest share, accounting for **33% (5,400 items)**. This suggests a significant emphasis on research-based and theoretical content in management studies.
- **Video Lectures** make up **27.5% (4,500 items)**, indicating a strong preference for visual and interactive learning materials, which are crucial for practical understanding.

Significant Presence of Lecture Notes:

- **Lecture Notes** account for **20.17% (3,300 items)**, highlighting the importance of structured educational content that supports classroom-based learning.

Limited Availability of Self-Assessment and Chapters:

- **Self-Assessment** resources represent **8.56% (1,400 items)**, showing some focus on interactive learning tools but still relatively low compared to lectures and articles.
- **Chapters** from books contribute **4.66% (762 items)**, suggesting that while book content is included, full books are not as widely available.

Minimal Representation of Books and Course Materials:

- **Books** account for only **0.72% (118 items)**, indicating limited availability of complete textbooks.
- **Web Courses** (0.63%), **Question Sets** (0.18%), **Solutions** (0.12%), and **Course Materials** (0.01%) are among the least available resources. This suggests a need for expanding structured learning materials.

Scarcity of Practical and Hands-On Learning Resources:

- Resources like **Source Codes** (0.03%) and **Collections** (0.04%) are nearly absent, indicating that hands-on, application-based learning materials are underrepresented in the collection.

FINDINGS:

The **Management and Auxiliary Services** resources in NDLI are heavily focused on research-based (**Articles**) and lecture-based (**Video Lectures & Notes**) content. However, there is **limited availability of books, assessments, and hands-on learning materials** like source codes, solutions, and course materials. Expanding practical and structured resources could enhance the comprehensiveness of management education in NDLI.

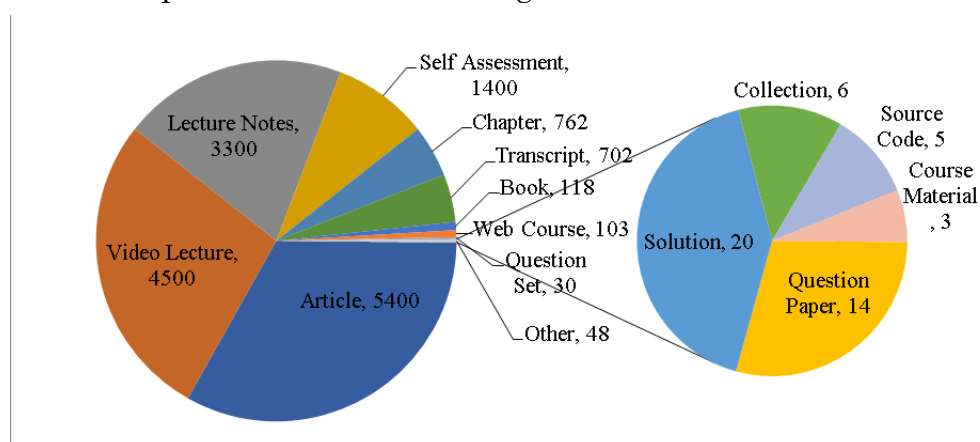


Figure No. 2: Types of the E-resources in NDLI Related Management Studies

Content Search by Content Providers in NDLI Related Management Studies:

The analysis of the NDLI source items reveals a vast and diverse collection of digital resources catering to various academic and research needs. The **World eBook Library** stands out as the largest contributor, offering **7,526,585** items, followed by the **British Council** with **656,861** resources. Other significant contributors include **Shodhganga** (269,702), **Krishikosh** -

Indian National Agricultural Research (138,322), and the **OECD Library (102,017)**, reflecting a strong emphasis on research and scholarly content. Platforms like **NPTEL (151,279)** and **NCERT (5,806)** provide valuable educational materials, particularly for students preparing for competitive exams like **IIT JEE (37)** and **GATE (283)**. Specialized archives such as the **South Asia Archive (29,969)** and **Satyajit Ray Society (39)** contribute to niche knowledge domains. Additionally, resources from **INFLIBNET (771)** and **N-LIST - Oxford Scholarship Online (1,930)** highlight the availability of higher education and scholarly publications. Despite this extensive collection, some sources have relatively fewer contributions, such as **Maharashtra State Board of Secondary and Higher Secondary Education (323)**, suggesting potential areas for expansion. Overall, NDLI provides a **rich and comprehensive digital repository**, ensuring accessibility to diverse academic and research materials across disciplines.

Here discussed on only higher education Management related contents.

Table No. 3: Content Search by Content Providers in NDLI Related Management Studies

Sr. No.	Content Providers	No. of Content	%
1	Bharat Skill	36	0.31
2	Calcutta university	8	0.07
3	Calibr	24	0.21
4	Consortium for Education Communication (CEC)	75	0.65
5	Digital Integrated System	2300	19.94
6	eGyankosh	3	0.03
7	Knowledge Unleashed in Multiple	34	0.29
8	Faculty Contribution	11	0.1
9	FOSSEE	5	0.04
10	Inflibnet e-PG Pathshala	1200	10.41
11	Libre Texts	5400	46.82
12	OpenStax	757	6.57
13	Principles of Accounting	151	1.31
14	EtemEZ	20	0.18
15	SWAYAM	1100	9.54
16	Swayam Prabha	401	3.48
17	Vidyasagar University	6	0.05

The table presents the distribution of digital content in NDLI across various content providers. **Libre Texts** emerges as the **largest contributor**,

accounting for **46.82% (5,400 items)**, indicating a strong presence of open-access educational resources. Following this, **Digital Integrated System** contributes **19.94% (2,300 items)**, highlighting its significant role in providing digital content.

Other notable contributors include **Inflibnet e-PG Pathshala (10.41%, 1,200 items)** and **SWAYAM (9.54%, 1,100 items)**, both of which are key platforms supporting higher education in India. **OpenStax**, a well-known open educational resource provider, contributes **6.57% (757 items)**, further strengthening the availability of freely accessible learning materials.

Meanwhile, **Swayam Prabha (3.48%, 401 items)** and **Consortium for Education Communication (CEC) (0.65%, 75 items)** contribute moderately to the content pool. However, several providers, such as **Bharat Skill (0.31%), E-Kumbha (0.29%), Faculty Contribution (0.1%),** and **Calcutta University (0.07%),** have a **minimal presence**, indicating limited contributions from these sources.

Overall, the data suggests that **a few major content providers dominate the NDLI database**, with **Libre Texts and Digital Integrated System leading the way**. Expanding contributions from smaller providers and universities could enhance the diversity and comprehensiveness of educational resources available in NDLI.

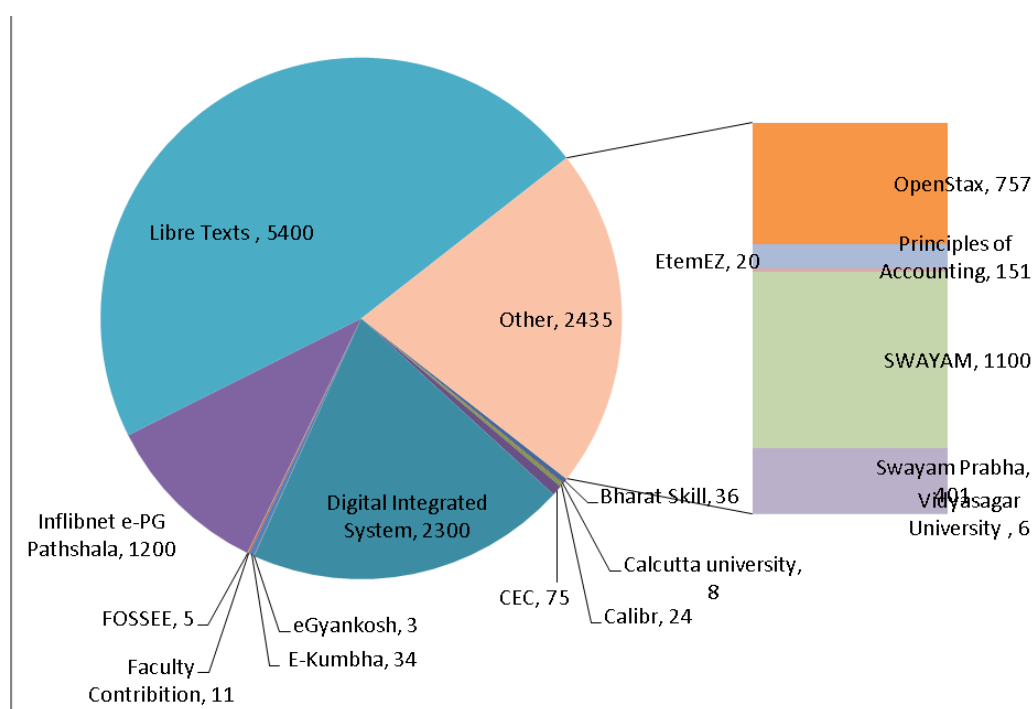


Fig. No. 3: Content Search by Content Providers in NDLI Related Management Studies

1. NDL Mobile App:

NDLI (National Digital Library of India) mobile app provides users with a filtered and federated searching facility, allowing them to quickly and efficiently find the right educational resources with minimal effort.

Key features of the **NDL India App**:

- **Advanced Search Options:** Users can apply filters to refine search results and locate relevant content easily.
- **Wide Range of Resources:** Access to books, articles, videos, lecture notes, and more.
- **User-Friendly Interface:** Designed for smooth navigation and an enhanced user experience.
- **Free Download:** The app is available for **free download** on **Google Play Store** for smartphones.

This mobile app ensures seamless access to digital educational content anytime, anywhere.

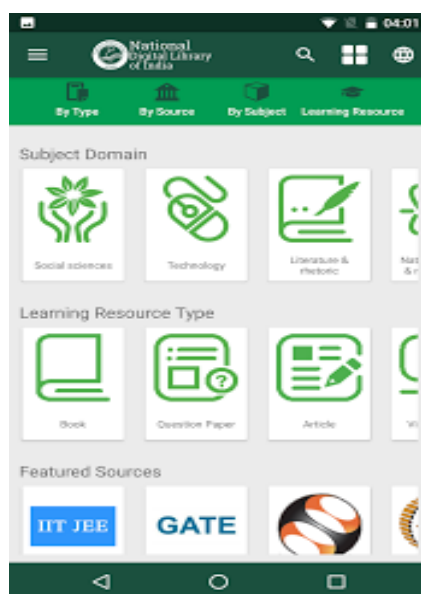


Figure 6: Mobile App: National Digital Library

CONCLUSION:

The distribution of digital content in NDLI demonstrates a strong focus on STEM fields (Science, Technology, Engineering, and Mathematics), which collectively account for over 80% of the total resources. While Social Sciences and Computer Science have a noticeable presence, subjects related to Arts, Humanities, and Religion remain underrepresented, highlighting the need for a more balanced academic collection.

In the domain of Management and Auxiliary Services, the resources are predominantly research-based (Articles) and lecture-driven (Video Lectures & Notes). However, the limited availability of books, assessments, and hands-on learning materials—such as source codes, solutions, and course materials—indicates a gap in practical learning resources. Expanding these areas could enhance the depth and applicability of management education in NDLI.

Overall, NDLI boasts an extensive and diverse collection that caters to students, researchers, and educators across disciplines. With significant contributions from World eBook Library, British Council, Shodhganga, Krishikosh, and NPTEL, the platform provides valuable access to academic and research materials. However, certain sectors—such as regional education boards and specialized archives—could benefit from further expansion. As a national digital learning hub, NDLI plays a crucial role in enhancing accessibility to quality educational content and fostering knowledge-sharing on both national and global scales.

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