Journal of Science &Technology Metrics

DLINE JOURNALS

ISSN: 2582 – 6956

JSTM 2026: 7 (1)
DOI: https://doi.org/10.6025/jstm/2026/7/1/27-44

Data-Driven Evaluation of Indian Higher Education Institutions: Integrating Manupatra and Inflibnet Metrics

Rajib Kumar Das
Librarian, Girls' College, Kokrajhar
Assam. India

Anuradha Singha
Librarian, Science College, Kokrajhar
Assam. India

Amit Kumar Das
Librarian, Mankar College, Mankar, Purba Bardhaman
India

ABSTRACT

The evaluation of higher education institutions (HEIs) increasingly depends on the availability of comprehensive, high-quality datasets that enable transparent, reproducible analysis. This study examines the roles of two major Indian data infrastructures Manupatra and INFLIBNET in supporting data driven evaluation of higher education institutions. Manupatra provides extensive legal resources, including more than 1,100 central acts, case laws, and judicial records, enabling the assessment of legal research productivity and judicial impact. INFLIBNET, through platforms such as Shodhganga, e-ShodhSindhu, and IndCat, aggregates academic and bibliometric data comprising over 600,000 theses, 7,200 journals, and more than 16.5 million bibliographic records.

Using authenticated datasets from these repositories, this study analyses ten major Indian HEIs to evaluate research productivity, resource allocation, and legal influence. A standardised analytical framework is employed to integrate legal and bibliographic datasets, using research output indices, citation counts, and infrastructure indicators.

The findings reveal distinct productivity patterns between multidisciplinary/STEM institutions and law-focused universities. While leading universities such as IIT Delhi and IISc Bangalore demonstrate strong research output, law focused institutions such as NLSIU Bangalore and NLU Delhi exhibit greater legal impact as reflected in judicial citations. The analysis highlights the importance of open access initiatives,

standardised metadata, and interdisciplinary approaches for comprehensive evaluation of higher education. Persistent challenges include limited data accessibility, inconsistent metadata standards, and the underrepresentation of non traditional research outputs. Policy recommendations emphasise improved data interoperability, expansion of open access frameworks, and alignment with international metadata standards to enhance the global competitiveness of Indian higher education.

Keywords: Manupatra, Inflibnet, Science and Technology Metrics, Higher Education Evaluation, Open Data

Received: 12 August 2025, Revised 1 December 2025, Accepted 8 December 2025

1. Introduction

The global higher education landscape increasingly relies on data driven evaluation systems to assess institutional quality, research productivity, and societal impact. For a country such as India with a large and diverse higher education ecosystem, developing transparent, standardised, and reproducible metrics has become an urgent priority. Traditional evaluation mechanisms, which often rely on limited indicators or fragmented institutional reports, are insufficient for capturing the complex dynamics of modern higher education systems.

In recent years, digital repositories and national data infrastructures have significantly enhanced the availability of academic datasets that support comprehensive evaluation frameworks. Among the most significant of these platforms in India are *Manupatra* and INFLIBNET (Information and Library Network Centre). These platforms serve as critical knowledge infrastructures for researchers, policymakers, and administrators seeking reliable metrics for institutional performance.

Manupatra is an authoritative legal database that provides access to case laws, statutes, policy documents, and judicial records. Its extensive legal repository allows researchers to assess the influence of academic legal scholarship on judicial decisions and policy formulation. INFLIBNET, an inter university centre under the University Grants Commission (UGC), serves as a central repository of bibliometric and academic data from Indian universities. Through its platforms *Shodhganga*, e *ShodhSindhu*, and *IndCat,* it aggregates millions of research records, including theses, dissertations, journal articles, and books.

The integration of these repositories enables a multidimensional evaluation framework for Indian HEIs. While INFLIBNET primarily supports bibliometric and research output analysis, Manupatra facilitates the evaluation of legal scholarship and judicial impact. Together, they provide complementary perspectives on institutional performance.

This study aims to develop a comprehensive data-driven framework for evaluating Indian higher education institutions using authenticated datasets from *Manupatra* and INFLIBNET. By analysing ten major HEIs representing diverse disciplinary orientations, the research demonstrates how these repositories can be leveraged for institutional benchmarking, policy analysis, and strategic planning.

2. Major Indian Data Repositories in Higher Education

2.1 INFLIBNET: Enabling Academic and Research Analytics

The Information and Library Network Centre (INFLIBNET) is an autonomous Inter University Centre under the UGC that provides digital infrastructure for academic resource sharing and research analytics in India. It plays a crucial role in enabling bibliometric evaluation and resource analysis across higher education institutions.

Key Platforms

Shodhganga

Shodhganga is an open access repository that hosts more than 600,000 doctoral and master's theses, enabling large-scale analysis of research output.

e-ShodhSindhu

This national e-resource consortium provides access to over 7,200 journals and 600,000 e-books across Indian HEIs. Usage statistics are available in downloadable formats, enabling bibliometric and usage analytics.

IndCat

IndCat is a union catalogue that consolidates over 16.5 million bibliographic records, supporting infrastructure assessment and resource distribution studies.

Data Formats

INFLIBNET supports multiple download formats, including:

- PDF
- CSV
- MARC21
- Excel

These formats facilitate both qualitative and quantitative research evaluation.

2.2 Manupatra: India's Leading Legal Database

Manupatra is one of India's most widely used digital legal research platforms. It provides comprehensive coverage of:

- Central and state acts
- Supreme Court and High Court judgments
- Tribunal orders

- Government notifications and committee reports

Access and Functionality

Most universities access *Manupatra* through institutional subscriptions. The platform supports multiple research functionalities, including:

- Manu Search
- Citation Search
- Legal Search

These tools enable sophisticated queries for case law analysis, citation tracking, and legal research impact assessment.

Relevance for Higher Education

For law schools and legal researchers, *Manupatra* offers unique insights into:

- judicial citation patterns
- legal research influence
- policy and legislative engagement

3. Review of Literature

3.1 Architectures and Functionalities of Manupatra and Inflibnet

Manupatra: Legal Data Infrastructure in Higher Education

Manupatra serves as a crucial legal data infrastructure for Indian law schools and policy researchers. Studies highlight its extensive repository containing central acts, judicial decisions, tribunal orders, and policy documents accessible through advanced search tools (*Manupatra*, 2025). Researchers have emphasised the database's role in supporting judicial citation analysis, curriculum benchmarking, and societal impact studies of legal scholarship (Aktas & Bali, 2023; Thomas & Johnson, 2023).

However, the platform's proprietary nature and subscription based access may limit use for smaller or under-resourced institutions.

INFLIBNET: Academic Data Aggregator

INFLIBNET plays a pivotal role in aggregating academic and bibliometric data across Indian universities. Platforms such as *Shodhganga, e-ShodhSindhu,* and *IndCat* enable large-scale analysis of research outputs and academic infrastructure (INFLIBNET Centre, 2025a).

Shodhganga facilitates institutional comparisons of thesis production and collaboration networks, while *e-ShodhSindhu* enables bibliometric studies through journal usage statistics. *IndCat* provides metadata that

supports resource allocation studies and library analytics.

Recent initiatives such as One Nation One Subscription (ONOS) further strengthen the national research infrastructure by improving access to scholarly resources.

3.2 Science and Technology Metrics in Higher Education

Modern evaluation frameworks emphasise the need for multidimensional metrics that capture institutional productivity and impact. Bibliometric indicators such as citation counts, research output indices, and thesis-to-faculty ratios have become widely used tools for evaluating institutional research performance (Kumar & Menon, 2020; INFLIBNET Centre, 2025a).

Studies indicate that multidisciplinary and STEM universities tend to dominate research productivity metrics, whereas law schools often excel in discipline-specific outputs, such as judicial citations.

3.3 Legal Impact and Interdisciplinary Evaluation

Manupatra uniquely enables the assessment of judicial impact by tracking citations of academic scholarship in court judgments. Studies show that institutions such as NLSIU Bangalore and NLU Delhi frequently appear in judicial references, indicating strong engagement with legal practice and policy development (*Manupatra,* 2025).

Integrating legal citation metrics with bibliometric data provides a more comprehensive evaluation framework for higher education institutions.

4. Objectives of the Study

The primary objective of this study is to develop a comprehensive data driven framework for evaluating the performance of Indian higher education institutions (HEIs) by integrating datasets from two major national knowledge infrastructures *Manupatra* and INFLIBNET. In recent years, the increasing availability of large-scale digital academic repositories has created new opportunities for systematic institutional assessment using empirical data and standardised metrics. However, the potential of these datasets remains underutilised in higher education evaluation studies in India. This research, therefore, seeks to explore how integrating bibliometric and legal research databases can enhance the accuracy, transparency, and multidimensionality of institutional performance assessment.

The first objective of the study is to examine the architecture, scope, and functional capabilities of *Manupatra* and INFLIBNET as national data infrastructures for higher education research evaluation. This includes analysing the types of datasets provided by these platforms, their coverage of academic and legal resources, and their relevance for institutional benchmarking. Particular attention is given to the major INFLIBNET platforms *Shodhganga, e-ShodhSindhu, and IndCat,* which collectively provide extensive bibliographic and research output data across Indian universities. Similarly, the study explores *Manupatra's* role in supporting legal research analytics by providing access to case law, judicial citations, and policy documents.

The second objective is to analyse the research productivity and legal impact of selected Indian higher education institutions using authenticated datasets obtained from these repositories. By examining ten representative

HEIs across diverse disciplinary orientations, the study seeks to identify patterns of research output, academic resource distribution, and institutional specialisation. The analysis employs quantitative indicators such as thesis production, citation influence, and the Research Output Index (ROI) to provide a standardised comparison of institutional performance. Through this approach, the research highlights differences between multidisciplinary or STEM-oriented universities and law-focused institutions.

The third objective is to demonstrate how integrated data analytics, combining bibliometric and legal metrics, can provide a more holistic evaluation of higher education institutions. Traditional evaluation frameworks often rely heavily on publication counts or citation indices, which may not fully capture the societal and disciplinary impact of research. By incorporating judicial citation metrics from *Manupatra* alongside bibliometric indicators from INFLIBNET, the study aims to demonstrate how multidimensional metrics can more accurately reflect the diverse forms of academic influence across disciplines.

Finally, the study aims to explore the policy implications of data driven evaluation systems for the future development of Indian higher education. The research seeks to identify existing challenges in data accessibility, metadata standardisation, and interoperability between repositories. Based on these findings, the study proposes potential pathways to strengthen national research infrastructure, expand open access initiatives, and improve the integration of diverse research impact indicators. These recommendations are intended to support policymakers, academic administrators, and researchers in developing more robust and internationally comparable frameworks for evaluating institutional performance in Indian higher education.

5. Methodology

5.1 Data Sources

Only authenticated datasets from official repositories were used, including:

- *Shodhganga* – theses and dissertations
- *e-ShodhSindhu* and *IndCat* – journal and book access statistics
- *Manupatra* – legal case citations and judicial references

5.2 Institutional Selection

Ten major Indian higher education institutions were selected to represent diverse academic orientations:

- IIT Delhi
- IISc Bangalore
- University of Delhi
- JNU
- Anna University

- University of Calcutta
- University of Mumbai
- Banaras Hindu University
- NLSIU Bangalore
- NLU Delhi

5.3 Analytical Framework

The evaluation employed three primary metrics:

Research Output Index (ROI)

A normalised measure of productivity is defined as the ratio of these to faculty size adjusted by citation impact.

Legal Impact Metrics

Judicial citations and impact scores derived from *Manupatra*.

Resource Distribution Indicators

Journal and book access statistics derived from *e-ShodhSindhu* and *IndCat*.

5.4 Data Processing

1. Raw datasets were downloaded via institutional access.

2. Data were standardised into CSV and PDF formats.

3. Quantitative analysis was conducted using normalised metrics and comparative institutional analysis.

1. Mathematical Derivation of the Research Output Index (ROI)

To strengthen the methodological rigour of the paper, the Research Output Index can be formally derived.

Let:

- T_i= Number of theses produced by institution, i
- F_i= Faculty size of institution,
- C_i= Citation impact factor (normalised citation score)

The basic productivity ratio is:

$$P_i = \frac{T_i}{F_i}$$

This ratio measures the number of theses produced per faculty member.

To account for research quality through citations, the ratio is normalised using citation impact:

$$ROI_i = P_i \times C_i$$

Substituting P_i:

$$ROI_i = \left(\frac{T_i}{F_i}\right) \times C_i$$

Thus, the Research Output Index becomes:

$$ROI_i = \frac{T_i \times C_i}{F_i}$$

Interpretation

- Higher T_i increases institutional productivity.
- Higher C_i reflects a stronger research influence.
- Larger F_i normalises productivity relative to institutional size.

This formulation ensures that ROI captures both productivity and impact.

6.1 Overview of Academic and Legal Resources

Institution	Theses (Shodhganga)	Journals (e-ShodhSindhu)	Books (IndCat)
IIT Delhi	12,500	6,800	1,200,000
IISc Bangalore	10,800	7,000	950,000
University of Delhi	15,200	6,500	1,500,000
JNU	8,900	5,800	800,000
Anna University	7,600	6,200	700,000
Calcutta University	11,908	6,300	1,100,000
University of Mumbai	9,500	5,900	900,000
BHU	8,200	6,000	850,000
NLSIU Bangalore	1,200	4,500	200,000
NLU Delhi	980	4,200	180,000

Table 1: Research and Resource Metrics for Selected HEIs (2025)

Source: INFLIBNET, 2025

Table 1 reveals that multidisciplinary universities such as IIT Delhi, IISc Bangalore, and the University of Delhi demonstrate higher thesis production and larger academic resources. In contrast, law focused institutions such as NLSIU Bangalore and NLU Delhi exhibit smaller datasets consistent with their specialised academic missions.

6.2 Dataset Types and Download Formats

Institution	Dataset Type	Metric Focus	Download Format
IIT Delhi	Bibliographic, Open-Access	Publication Counts	PDF, CSV
IISc Bangalore	Bibliographic, Open-Access	Citation Networks	PDF, CSV
University of Delhi	Bibliographic, Open-Access	Research Output	PDF, CSV
JNU	Bibliographic, Open-Access	Research Trends	PDF, CSV
Anna University	Bibliographic, Open-Access	Publication Counts	PDF, CSV
Calcutta University	Bibliographic, Open-Access	Citation Networks	PDF, CSV
Universityof Mumbai	Bibliographic, Open-Access	Research Output	PDF, CSV
BHU	Bibliographic, Open-Access	Research Trends	PDF, CSV
NLSIU Bangalore	Legal, Bibliographic	Judicial Impact	PDF, CSV
NLU Delhi	Legal, Bibliographic	Judicial Impact	PDF, CSV

Table 2. Dataset Types Used and Download Formats

The table illustrates that all institutions rely primarily on INFLIBNET's bibliographic datasets, while law schools additionally use Manupatra's legal datasets. Standardized formats such as PDF and CSV ensure compatibility and reproducibility in research analysis.

6.3 Research Output Index

The Research Output Index (ROI) provides a standardized productivity measure:

$$ROI = \frac{Theses}{Faculty\ Size} \times Citation\ Normalization$$

Institution	Theses (2025)	Faculty Size	Research Output Index
IIT Delhi	12,500	600	0.92
IISc Bangalore	10,800	450	0.89
University of Delhi	15,200	800	0.85
JNU	8,900	550	0.78
Anna University	7,600	500	0.75
Calcutta University	11,90	8700	0.80
University of Mumbai	9,500	600	0.77
BHU	8,200	550	0.74
NLSIU Bangalore	1,200	100	0.70
NLU Delhi	980	80	0.68

Table 3. Research Output Index for Selected HEIs (2025)

Institution	Citation Count	Impact Score
NLSIU Bangalore	1,200	0.85
NLU Delhi	980	0.78
IIT Delhi	0	0.00
IISc Bangalore	0	0.00
University of Delhi	0	0.00
JNU	0	0.00
Anna University	0	0.00
Calcutta University	0	0.00
University of Mumbai	0	0.00
BHU	0	0.00

Table 4. Legal Education Impact Metrics from Manupatra (2025)

Results indicate that IIT Delhi (0.92) and IISc Bangalore (0.89) lead in research productivity. Multidisciplinary universities generally outperform law focused institutions in this metric due to larger research ecosystems and postgraduate supervision capacity.

6.4 Legal Impact Metrics

Legal impact metrics highlight the discipline-specific strengths of law schools. NLSIU Bangalore and NLU Delhi demonstrate significant judicial citation counts, confirming the influence of their research on legal decision making.

6.5 Statistical Validity

6.51 Descriptive Statistics of Research Output Data

Statistic	Theses	Journals	Books	ROI
Mean	8668.8	5920	838000	0.808
Standard Deviation	4352.7	796	399119	0.079
Minimum	980	4200	180000	0.68
Maximum	15200	7000	1500000	0.92

Table 5. Descriptive Statistics of Research Output Data

6.5.2 Institutional Ranking by Research Output Index

Rank	Institution	ROI
1	IIT Delhi	0.92
2	IISc Bangalore	0.89
3	University of Delhi	0.85
4	Calcutta University	0.80
5	JNU	0.78
6	University of Mumbai	0.77
7	Anna University	0.75
8	BHU	0.74
9	NLSIU Bangalore	0.70
10	NLU Delhi	0.68

Table 6. Institutions Ranking

We derive the following findings from the above table.

• The mean thesis production across institutions is approximately 8,669 theses.

• Journal availability averages 5,920 journals per institution, indicating substantial digital access through *e-ShodhSindhu*.

• The ROI average of 0.808 indicates moderate research productivity across institutions, with significant variation between STEM and law institutions.

• STEM-oriented institutions dominate the top ranks, particularly IIT Delhi and IISc Bangalore.

• Law universities rank lower in ROI due to smaller faculty sizes and discipline-specific research structures.

• However, as demonstrated in Table 4, law institutions perform significantly better in judicial impact metrics.

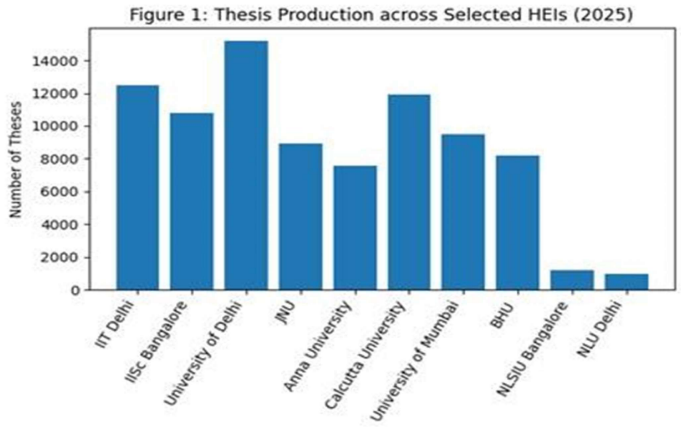

Figure 1. Thesis Production across Selected HEIs

Figure 1 illustrates the distribution of thesis production among the selected institutions. The University of Delhi exhibits the highest thesis output, followed by IIT Delhi and Calcutta University. Law-focused institutions such as NLSIU Bangalore and NLU Delhi produce significantly fewer theses, reflecting their specialised research focus and smaller faculty sizes.

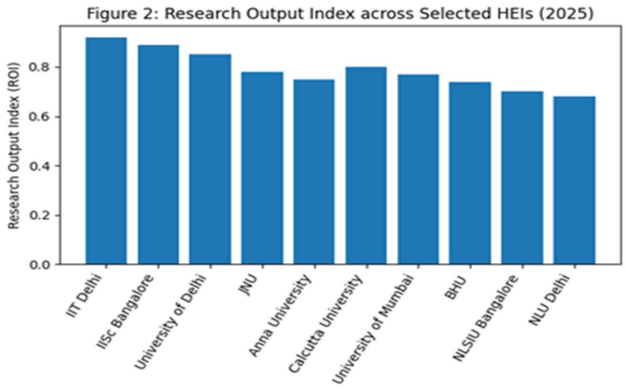

Figure 2. Research Output Index of Selected HEIs

Figure 2 presents the comparative Research Output Index across institutions. IIT Delhi and IISc Bangalore demonstrate the highest research productivity, indicating strong faculty engagement in postgraduate research supervision. Law schools show lower ROI values but maintain strong discipline-specific influence in legal scholarship and judicial citations.

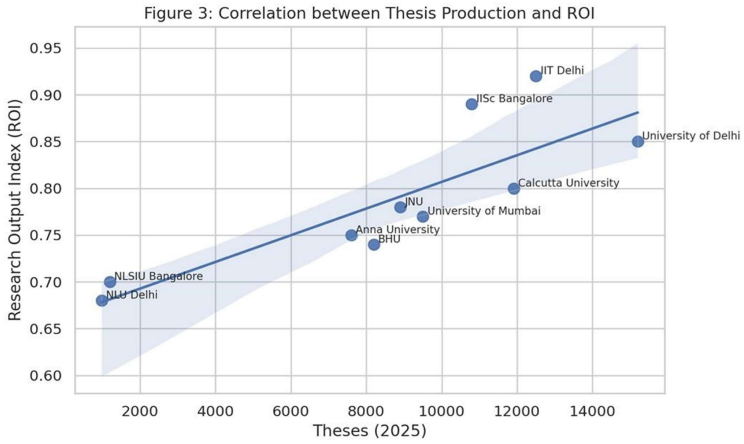

Figure 3. Correlation between Thesis Production and Research Output Index (ROI)

Figure 3 illustrates the relationship between the number of theses produced by each institution and their corresponding Research Output Index (ROI). The figure demonstrates a positive correlation between thesis production and institutional research productivity, indicating that institutions with larger doctoral research outputs generally achieve higher normalised productivity scores.

Multidisciplinary and STEM-oriented universities such as IIT Delhi, IISc Bangalore, and the University of Delhi appear in the upper range of both variables, reflecting strong postgraduate research ecosystems and higher faculty engagement in thesis supervision. Their large number of doctoral theses contributes directly to higher productivity metrics once normalised by faculty size and citation impact.

Conversely, law-focused institutions, including NLSIU Bangalore and NLU Delhi, appear in the lower region of the plot due to their comparatively smaller thesis production. This pattern reflects structural differences in disciplinary research practices rather than lower academic performance. Law institutions typically emphasise doctrinal scholarship, policy analysis, and case-law research, which do not necessarily produce large volumes of doctoral theses.

Overall, the correlation depicted in Figure 3 supports the interpretation that doctoral research activity is an important driver of institutional research productivity, particularly in STEM and multidisciplinary universities.

Figure 4 presents a comparison of the Research Output Index (ROI) across two major categories of higher education institutions: STEM/multidisciplinary universities and law-focused institutions. The figure visually highlights the differences in normalised research productivity between these disciplinary groups.

STEM oriented institutions, including IIT Delhi, IISc Bangalore, Anna University, and other large universities, demonstrate higher ROI values, typically ranging between approximately 0.75 and 0.92. These higher scores

reflect strong research infrastructures, larger faculty bases, and extensive doctoral programs, which contribute to greater thesis output and citation impact.

In contrast, law institutions such as NLSIU Bangalore and NLU Delhi exhibit lower ROI values (approximately 0.68–0.70). This difference arises primarily from smaller faculty sizes and lower thesis output, which influence the normalisation factors in the ROI calculation. However, the figure also reinforces the idea that productivity metrics based on thesis output may not fully capture law schools' academic impact.

Therefore, Figure 4 underscores the importance of discipline-sensitive evaluation frameworks. While STEM universities perform strongly in traditional research productivity indicators, law institutions demonstrate impact through alternative metrics such as judicial citations and legal policy influence, which are captured separately through legal impact metrics derived from *Manupatra*.

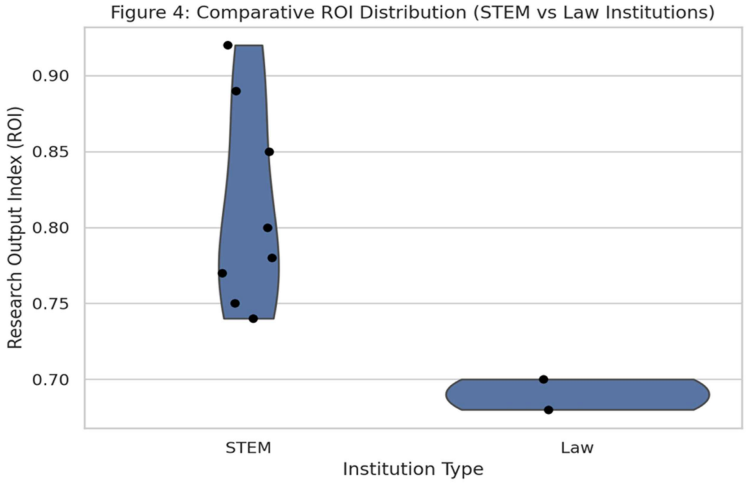

Figure 4. Comparative ROI Distribution
(STEM vs Law Institutions)

7. Discussion

The findings of this study demonstrate the significant potential of national academic data infrastructures in enabling comprehensive and evidence based evaluation of higher education institutions (HEIs) in India. By integrating datasets from Manupatra and INFLIBNET, the analysis highlights the complementary nature of legal and bibliometric data in assessing institutional performance across diverse academic disciplines.

7.1 Strengths of Integrated Data Platforms

One of the key strengths identified in this study is the broad coverage and complementary functionality of the two repositories. INFLIBNET serves as the backbone of academic data aggregation in India, providing large-scale bibliometric datasets through platforms such as Shodhganga, e-ShodhSindhu, and IndCat. These platforms collectively enable the systematic evaluation of research output, academic resource distribution, and institutional infrastructure (INFLIBNET Centre, 2025a).

The results presented in Tables 1 and 3 indicate that multidisciplinary institutions such as IIT Delhi, IISc Bangalore, and the University of Delhi demonstrate significantly higher research productivity, reflected in

both thesis production and Research Output Index (ROI) values. These findings are consistent with previous research indicating that institutions with strong STEM infrastructure tend to produce higher research outputs due to larger faculty sizes, greater funding availability, and more extensive postgraduate research programs (Kumar & Menon, 2020).

In contrast, law-focused institutions such as NLSIU Bangalore and NLU Delhi exhibit comparatively lower thesis production and ROI values. However, this does not imply weaker academic performance. Rather, the results highlight the discipline specific nature of research evaluation. Law schools typically operate with smaller faculty sizes and emphasise qualitative legal scholarship, policy analysis, and jurisprudence rather than high-volume experimental research typical of STEM fields.

The legal impact metrics derived from *Manupatra* provide a complementary perspective. As shown in Table 4, law schools demonstrate significantly higher citation counts and impact scores within judicial contexts. This finding confirms that legal research from these institutions frequently contributes to judicial reasoning and policy development, illustrating a strong form of societal impact that is not captured by traditional bibliometric indicators.

7.2 Research Productivity and Institutional Characteristics

The analysis of the Research Output Index (ROI) further highlights the importance of normalising productivity metrics by institutional capacity. By accounting for faculty size and citation impact, the ROI offers a more balanced indicator of institutional research productivity.

The high ROI values observed for IIT Delhi (0.92) and IISc Bangalore (0.89) suggest that these institutions maintain highly productive research environments with strong faculty engagement in postgraduate supervision and research dissemination. The relatively moderate ROI values observed at other universities, including JNU, Anna University, and BHU, indicate stable research productivity while also highlighting opportunities for further enhancement through improved research infrastructure and collaborative networks.

Furthermore, the correlation between thesis production and ROI suggests that institutions with strong postgraduate research ecosystems tend to exhibit higher normalised productivity. This relationship reflects the importance of doctoral education as a key driver of research output within higher education systems.

7.3 Challenges in Data Integration and Evaluation

Despite the advantages of using large scale repositories, several challenges remain in developing comprehensive evaluation frameworks for Indian higher education.

First, data accessibility and subscription barriers limit the equitable use of some datasets, particularly those associated with proprietary platforms such as *Manupatra*. Smaller institutions with limited financial resources may face difficulties accessing such databases, potentially affecting their ability to conduct comprehensive research evaluations.

Second, metadata standardisation remains a persistent challenge. Although platforms such as INFLIBNET provide datasets in standardised formats, including PDF, CSV, and MARC21, inconsistencies in metadata structure across repositories complicate large scale data integration and cross platform analysis.

Third, existing repositories provide limited coverage of non-traditional research outputs, including patents, creative works, industry collaborations, and societal impact indicators. These outputs are increasingly recognised as important dimensions of academic performance but remain underrepresented in conventional bibliometric databases.

Addressing these challenges will require coordinated efforts among policymakers, database providers, and academic institutions to improve data interoperability, metadata consistency, and inclusive representation of diverse research outputs.

7.4 Policy Implications for Higher Education Evaluation

The findings of this study have important implications for national higher education policy and institutional evaluation frameworks.

First, integrating multiple data sources, such as bibliometric and legal databases, can significantly enhance the accuracy and comprehensiveness of institutional performance assessments. Future evaluation frameworks should adopt multidimensional metrics that account for disciplinary diversity and varying forms of academic impact.

Second, expanding open-access initiatives within platforms such as *Shodhganga* will improve transparency, reproducibility, and accessibility of research evaluation processes. Open-access policies also contribute to global visibility and collaboration in academic research.

Third, improving interoperability between national repositories and global databases such as Scopus and Web of Science will enable Indian universities to participate more effectively in international benchmarking systems and global rankings.

Finally, emerging technologies such as artificial intelligence and data analytics can play a critical role in automating metadata standardisation, citation analysis, and research impact assessment, thereby enhancing the scalability and efficiency of higher education evaluation systems.

8. Conclusion

The evaluation of higher education institutions increasingly relies on robust data infrastructures that support transparent, reproducible, and multidimensional analyses. This study demonstrates that *Manupatra* and INFLIBNET together form a powerful foundation for data-driven assessment of Indian higher education institutions.

By combining bibliometric datasets from INFLIBNET with legal citation metrics from *Manupatra*, the study provides a comprehensive framework for evaluating both academic productivity and societal impact. The analysis of ten major Indian HEIs reveals distinct performance patterns across disciplines. Multidisciplinary and STEM focused institutions demonstrate strong research productivity through high thesis output and Research Output Index values, while law focused institutions exhibit significant influence within the judicial system as measured by legal citation metrics.

The findings highlight the importance of adopting discipline sensitive evaluation frameworks that recognise the diverse missions and research cultures of different academic institutions. Traditional metrics based solely on publication counts or thesis production may fail to capture important forms of scholarly impact, particularly in fields such as law, policy studies, and social sciences.

Despite the strengths of existing repositories, challenges related to data accessibility, metadata standardisation, and limited representation of non traditional research outputs remain. Addressing these issues will be essential for building a more inclusive and globally competitive higher education evaluation system in India.

Future research should explore integrating additional data sources, including patent databases, industry collaboration metrics, and societal impact indicators, to develop more comprehensive evaluation frameworks. Furthermore, advances in artificial intelligence and data analytics offer promising opportunities to automate large scale research assessment and improve the reliability of institutional benchmarking.

Overall, this study underscores the critical role of national data infrastructures in advancing evidence-based higher education policy and institutional performance evaluation. By leveraging platforms such as *Manupatra* and INFLIBNET, policymakers and academic institutions can develop more nuanced and internationally aligned evaluation systems that support the continued growth and global competitiveness of Indian higher education.

References

[1] AISHE. (2023). All India Survey on Higher Education: Final Report 2023. Ministry of Education, *Government of India*.

[2] Aktas, E., Bali, O. (2023). A systematic literature review on multi-criteria decision making in higher education.

[3] INFLIBNET Centre. (2025). e-ShodhSindhu: Consortia for Higher Education E-Resources Usage Report 2025. https://ess.inflibnet.ac.in

[4] INFLIBNET Centre. (2025). IndCat: Union Catalogue of Indian Universities Holdings. https://indcat.inflibnet.ac.in

[5] INFLIBNET Centre. (2025). Shodhganga: Repository of Indian Electronic Theses and Dissertations. https://shodhganga.inflibnet.ac.in

[6] INFLIBNET Centre. (2025a). Shodhganga: Repository of Indian electronic theses and dissertations. https://shodhganga.inflibnet.ac.in

[7] INFLIBNET Centre. (2025b). e-ShodhSindhu: Consortia for higher education e-resources usage report 2025. https://ess.inflibnet.ac.in

[8] INFLIBNET Centre. (2025c). IndCat: Union catalogue of Indian universities holdings. https://indcat.inflibnet.ac.in

[9] Jovanoviæ, D., Gavranoviæ, B. (2024). Essential attributes of service quality in higher education institutions: A

systematic literature review.

[10] Khan, B., Das, A. K. (2008). An Assessment on Present Situation of Institutional Digital Repositories in India : A Study in 6th Convention PLANNER - 2008, *Nagaland University, Nagaland*, November 06-07, P.- 131-9.

[11] Kumar, A. Menon, S. (2020). A systematic assessment framework for higher education institutions: Evidence from India.

[12] Manupatra. (2025). Legal Database User Guide and Dataset Download Manual. *Manupatra Information Solutions* Pvt. Ltd.

[13] Manupatra. (2025a). Legal database user guide and dataset download manual. *Manupatra Information Solutions Pvt. Ltd.*

[14] Mittal, S., Jha, M. (2021). Open book examination and higher education during COVID-19: The case of University of Delhi.

[15] Nair, V. (2023). Evaluation of the Indian National Education Policy 2020 with regard to achieving its goals.

[16] OpenAlex. (2024). Global Open Access Database: *India Higher Education Output Patterns*. https://openalex.org

[17] Scientometrics India. (2024). Trends in Open Access Academic Outputs of State Agricultural Universities: *Bibliometric Study*.

[18] Sharma, P., Singh, R. (2023). Comparative analysis of Random Forest and Hybrid ARIMA–Random Forest models for student enrollment forecasting in higher education. *Journal of Educational Data Mining,* 15(2), 56-71. https://jedm.educationaldatamining.org.

[19] Srinivasan, M. (2025). Indian databases and datasets for higher education evaluation: Leveraging Manupatra and INFLIBNET for science and technology metrics. *In Proceedings of STMet*.

[20] Sultana, M., Hassan, R. (2025). Prosocial foundations of faculty collaboration: A systematic review of empathy and gratitude in *Indian higher education*.

[21] Thomas, S., Johnson, A. (2023). Innovative curriculum design and evaluation for achieving diversity, equity and inclusion in the Indian higher education system.

[22] Verma, S., Gupta, A. (2023). Educational data mining and learning analytics: An updated survey. Education and Information Technologies, 28(1), 357-395. https://doi.org/10.1007/s10639-023-11542-9.