

Role Of Library Related Criteria In Ranking Of Universities: A Study

GNaina S Peters, Veena A Prakash

*Librarian, Hislop College, Nagpur, India.
Information Scientist, R.T.M Nagpur University, India.*

Abstract

In this research, the study examines the position of library-related factors in ranking universities, looking into how academic libraries support institutional performance in key global and national ranking systems. Through the case study of leading ranking systems like ARWU, QS, THE, NAAC, and NIRF, the author determines how library services and resources are integrated and weighted in assessment processes. The research discloses that libraries are important in facilitating research productivity, teaching quality, internationalization, and student satisfaction, which are the most significant dimensions affecting university rankings. It also documents methodological differences in ranking methodologies, which influence academic library strategic priorities to realign their services to suit different evaluation points. The results highlight the significance of technological adoption, user-focused services, and strategic planning in amplifying the contributions of libraries toward university reputation and competitiveness. The research underlines the imperative for universities to identify and invest in library development as part of comprehensive institutional quality assurance and ranking enhancement initiatives. Through this, academic libraries can enhance their role as critical stakeholders in higher education towards excellence, inclusiveness, and sustainability. The study provides important recommendations for library professionals, university managers, and policymakers seeking to maximize library services towards improving institutional success in the rapidly competitive academic environment.

Keywords: *University ranking, Academic libraries, Assessment Criteria, Evaluation Criteria*

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I. Introduction

The university ranking has emerged as a powerful driver influencing the strategic orientation and image of universities globally. Amidst this multi-dimensional assessment environment, the position of academic libraries, commonly regarded as the intellectual centers of universities, deserves serious attention. Libraries play a major role in improving different aspects of university performance, ranging from research productivity and teaching excellence to internationalization initiatives and student satisfaction. As ranking systems mature and become diversified in criteria, knowing how library-related factors are involved in the rankings is crucial to understand their overall institutional influence. University ranking systems function with different evaluation systems that correspond to different academic priorities and cultural environments. Established global rankings websites like Academic Ranking of World Universities (ARWU), QS World University Rankings, and Times Higher Education (THE) focus on research output, academic reputation, quality of teaching, and internationalization, whereas national frameworks like India's National Assessment and Accreditation Council (NAAC) and National Institutional Ranking Framework (NIRF) include contextual factors like governance, inclusivity, and accreditation standards. This heterogeneity in approach and emphasis affects the relative weighting given to library resources and services in university evaluations (Musa et al., 2019; Dimzov, Matošić, & Urem, 2021).

Libraries are critical to the research excellence infrastructure serving research, a key aspect for rankings such as ARWU and THE, which emphasize bibliometric indicators and academic honors (MacColl, 2010; Marcial, Costa, & González-Solar, 2016). Outside of facilitating research, libraries support teaching and learning through the provision of access to varied scholarly content and the development of information literacy, ultimately supporting the quality of education and student outcomes—factors embedded within QS and NIRF assessment frameworks (Atkinson & Walton, 2016; Xu & Cheng, 2024). Secondly, libraries contribute to the globalization of universities by supporting multicultural international student populations and facilitating cross-cultural academic cooperation, which are becoming more important parameters in international rankings (Click, Wiley, & Houlihan, 2017; Sanaz Soltani & Shahrokh Nikou, 2020). Recent research emphasizes the adaptive function of academic libraries in responding to changing institutional priorities influenced by ranking models. The adoption of digital technologies, such as artificial intelligence, and the transition to user-focused service models

have increased libraries' contribution to the competitiveness and prominence of universities (Islam et al., 2025; Baidoo & Nwagwu, 2024). Libraries also influence institutional reputation through quality management practices, availability of resources, and collaboration with industry and community stakeholders, dimensions that affect perception-based indicators in ranking models (Ho, Lai, & Chen, 2023; Mayende, Awuor, & Namande, 2021). Methodological differences between ranking systems influence the assessment and appreciation of library services. While ARWU's quantitative emphasis foregrounds research-supportive facilities, QS and THE include more general institutional reputation and employer opinion, providing libraries with the potential to show their contribution to employability and sustainability. Indian frameworks such as NAAC and NIRF prioritize qualitative evaluation and governance, nudging libraries towards synchronization with national quality assurance systems and inclusion targets (Sarkar & Banerjee, 2023; Enakrire, 2025). Familiarity with these varied assessment criteria is essential for academic libraries to synchronize their strategic planning with institutional goals and international standards.

In conclusion, academic libraries have an integrated and dynamic function in university ranking environments. Their roles range from enabling research productivity, improving teaching and learning quality, promoting internationalization, and participating in larger institutional agendas. Identifying and describing the influence of library-related criteria within ranking models not only confirms libraries as essential academic collaborators but also informs their continued evolution in response to new challenges and opportunities facing higher education. This research seeks to critically explore the way in which library-based criteria are incorporated into university ranking systems and consider the implications for strategic positioning and planning of academic libraries.

Relevance of the Study

The significance of this study lies in its potential to illuminate the often underappreciated yet critical role that academic libraries play in the broader ecosystem of university rankings and institutional evaluation. With universities globally competing for acknowledgement and funds based on their ranked position, it is critical to understand the role of library-related factors. Libraries no longer are book repositories; they are dynamic institutions for knowledge creation, dissemination, and support directly impacting key performance metrics utilized in ranking calculations. Through an analysis of how various ranking systems integrate and prioritize library services, this research provides insightful findings that can inform libraries in how to adapt their services to institutional objectives and strengthen their strategic value.

Academic libraries promote research excellence through the delivery of access to key scholarly resources and the support of knowledge management practices that are essential to the research output metrics prioritized by rankings like ARWU and THE (MacColl, 2010; Marcial, Costa, & González-Solar, 2016). In addition, libraries help enhance teaching quality and student satisfaction, key factors in rankings such as QS and NIRF, by providing access to varied learning materials and promoting information literacy skills (Atkinson & Walton, 2016; Xu & Cheng, 2024). These efforts emphasize the interdependence between library services and the academic excellence of institutions, proving that the enhancement of library infrastructure and service quality can affect university reputation and ranking performance directly.

Additionally, the emphasis of the study on harmonizing library-related criteria across varying ranking models highlights how such frameworks impact university priorities and resource allocation. The difference in assessment techniques between international rankings and national models such as NAAC and NIRF highlights the necessity for libraries to alter their strategic planning in response to varying expectations, which range from qualitative evaluations to governance-related criteria (Sarkar & Banerjee, 2023; Enakrire, 2025). This flexibility is imperative to libraries so that they can stay relevant and make meaningful contributions towards institutional accreditation and performance assessment processes. The growing use of digital technologies and innovative models of service by academic libraries still highlights their role in promoting the competitiveness of universities. Through the incorporation of cutting-edge technologies like AI and user-oriented delivery of services, libraries are in a better position to address the changing needs of researchers and students and support employability and internationalization objectives emphasized in ranking frameworks like QS and THE (Islam et al., 2025; Baidoo & Nwagwu, 2024; Click, Wiley, & Houlihan, 2017). Knowledge of these trends empowers library professionals and higher education administrators with the insights necessary to capitalize on library strengths in attaining improved rankings and driving institutional development. Ultimately, this research adds to an enhanced understanding of the strategic value of academic libraries in the modern higher education environment. It alerts policymakers, university administrators, and library directors to the pivotal interconnections between library performance and being successful at institutional rankings, prompting more strategic investments in library services as a component of balanced university development plans. This way, it accelerates the agenda for academic libraries to be regarded as key collaborators toward excellence, inclusiveness, and sustainability in higher education institutions.

Objective of the study:

To study the evaluation criteria of assessment of university by each ranking system considered for the study

II. Methodology

This research uses a comparative and analytical research approach to examine the place of library-related factors in the ranking systems of universities. It encompasses an in-depth analysis of prominent international and national ranking systems, such as ARWU, QS, THE, NAAC, and NIRF, with special emphasis on their assessment factors, weighting strategies, and data collection procedures. Data is collected from ranking reports published, institutional reports, and available academic literature to ascertain how library resources and services are incorporated and given value within these schemes. The approach involves qualitative content analysis in deciphering the meaning of library-related metrics and their impact on the general performance of a university. Further, the study discusses methodological differences among ranking schemes for comprehension of their implications to the strategic planning of academic libraries. This method allows for a clear understanding of the mapping of library functions to ranking factors, offering insights for libraries to maximize their contribution to institutional achievement and cater to the changing higher education assessment needs.

Table 1: Overview of Ranking Systems and Their Evaluation Focus

Ranking System	Geographic Scope	Primary Focus	Number of Indicators	Weighting Approach	Data Sources
ARWU	Global	Research Excellence and Academic Awards	6 main indicators	Weighted percentage per indicator	Nobel Prize, Highly Cited Researchers, Web of Science, Institutional data
QS	Global	Academic & Employer Reputation, Research Impact, Internationalization, Employability, Sustainability	9 indicators	Weighted percentage per indicator	Surveys, Scopus, University data
THE	Global	Teaching, Research, International Outlook, Industry Engagement	18 indicators across 5 pillars	Weighted percentage per pillar	Surveys, Scopus, University submissions
NAAC	India	Institutional Quality & Accreditation covering Teaching, Research, Infrastructure, Governance	7 key criteria subdivided into many qualitative and quantitative metrics	Grade Point Average (GPA) system	Self-study reports, Peer team visits, Institutional data
NIRF	India	Teaching, Research, Graduation Outcomes, Inclusivity, Perception	5 broad parameters subdivided	Weighted percentage per parameter	Institutional data, Third-party validation

Table 1 presents a comparative overview of the dominant global and Indian university ranking systems, highlighting their unique evaluation foci and scopes. This summary is paramount in comprehending each system's ordering different dimensions of academic achievement and institutional performance. ARWU focuses mainly on research productivity and academic honors, presenting itself as a research-intensive measure. QS incorporates aspects like employability, sustainability, and internationalization, providing a richer portfolio. THE judges universities in terms of teaching, research, industry interface, and international outlook, capturing a wide range of university activities. NAAC and NIRF, with an Indian focus, include qualitative judgments and governance in addition to research and teaching indicators, capturing context-appropriate criteria for the Indian higher education scene. This contrast in emphasis and approach clarifies the way in which ranking schemes influence university behavior and strategic priorities and the significance of rating library support services and ranking criteria against each system's distinct framework.

Table 2 Key Evaluation Indicators and Their Weights in Major Ranking Systems

Indicator Category	ARWU (%)	QS (%)	THE (%)	NAAC (Qualitative)	NIRF (%)
Academic Reputation	-	30	Teaching Reputation 15	Included in Teaching-Learning	Included in Teaching & Perception
Employer Reputation	-	15	Employer survey*	Part of Student Support & Progression	Included in Perception
Research Output and Quality	80 (combined)	20	38 (Research + Citation)	Research Publications & Patents	30 (Research & Professional Practice)
Faculty/Student Ratio	-	10	4.5 (Student Staff)	Included in Teaching	Included in Teaching & Learning

Internationalization	-	15	7.5 (International Outlook)	Part of Institutional Values	Part of Outreach and Inclusivity
Employability	-	5	0.0 (Separate from main indicators)	Student Support and Progression	Included in Graduation Outcomes
Sustainability	-	5	-	Part of Institutional Values	-
Industry Engagement	-	-	4 (Industry Income + Patents)	-	-
Per Capita Performance	10	-	-	-	-
Overall Assessment Method	Weighted sum of normalized scores	Weighted sum of normalized scores	Weighted sum of normalized scores	GPA grading system with peer review	Weighted sum of normalized scores

***THE employer reputation is collected via surveys but weighed within Teaching or Research pillars indirectly.**

Table 2 clarifies the individual performance measures and their relative weight within the five ranking systems, demonstrating varied emphases that guide university assessments. ARWU's strong emphasis on research output and awards highlights its research focus, while QS equates academic reputation with employer recognition and international diversity, indicating a more extensive institutional profile. THE's weighting across teaching, research, and international outlook shows a diverse strategy, with industry involvement. Indian systems NAAC and NIRF both apply qualitative and quantitative indicators, of which NAAC targets accreditation-related qualitative indicators and NIRF focuses on teaching, research, and inclusion. The difference in weight for indicators shows how each ranking system influences institutional priorities to influence how universities construct library services to meet these requirements. Appreciation of these differences helps critically examine the contribution of library support to the valued dimensions of each ranking system, thereby connecting institutional development to international and national standards of evaluation.

Table 3 Summary of Data Sources and Methodology Features

Ranking System	Data Collection Methods	Inclusion/Exclusion Criteria	Scoring & Ranking Approach	Frequency of Updates
ARWU	Institutional data, bibliometrics, award databases	Research-intensive universities, minimum publication counts	Normalization by top score; weighted sum	Annual
QS	Global surveys, bibliometric data (Scopus), University submissions	Regional and research thresholds; size filters	Weighted sum with dynamic indicator weights	Annual
THE	Institutional submissions, bibliometrics (Scopus), surveys	Publication minimums, data transparency, diverse subjects	Normalized scores weighted by pillar	Annual
NAAC	Self-study reports, peer team visits, institutional documentation	Indian HEIs, mandatory reporting for accreditation	Graded on a 4-point scale GPA system	Every 5 years
NIRF	Institution-reported data, third-party verification	Minimum enrollments, program types, data accuracy	Normalized weighted scores across parameters	Annual

Table 3 highlights the varied data collection techniques, inclusion criteria, and scoring methods employed by the ranking systems, emphasizing methodological differences that are crucial to understanding their results. World rankings such as ARWU, QS, and THE base their rankings to a large extent on bibliometric databases, surveys, and institutional reports, placing importance on transparency and comparability across a huge number of institutions. Indian NAAC and NIRF include extensive self-evaluation, peer assessment, and external verification, with a context-specific framework for quality assurance and institutional performance. Variation in eligibility requirements, like publication targets and enrollments numbers, determines which universities are rated and ranked. Scoring procedures range from weighted averages of normalized indicators (ARWU, QS, THE, NIRF) to qualitative GPA grading (NAAC). Identification of these methodological subtleties is important in examining library support services and ranking criteria evaluation so that one gets a complete understanding of institutional strengths and weaknesses identification as well as how ranking systems affect university strategy.

Implications of the Study

The findings of this research have far-reaching implications for academic libraries, university leaders, policymakers, and developers of ranking systems since they illuminate the pivotal but frequently neglected function that libraries perform in determining institutional reputation and performance across global and domestic

ranking systems. By shedding light on how library-based factors are incorporated into various ranking systems, the research provides insights that can be used to inform strategic planning and resource allocation across higher education institutions. Research libraries are no longer peripheral service departments; instead, they are central to the pursuit of excellence in research, teaching, and internationalization, which are the core areas of university assessment. This acknowledgment of their centrality prompts universities to make investment in the library infrastructure, technology, and human resources a priority, which boosts their ability to facilitate knowledge creation, dissemination, and learning outcomes. This study also underscores the need for academic libraries to align their service models and operational strategies with the distinct priorities and methodologies of various ranking systems. Given the differences between global rankings such as ARWU, QS, and THE—which emphasize research productivity, academic reputation, and international outlook—and national frameworks like NAAC and NIRF—which incorporate qualitative assessments and governance—the findings suggest that libraries must adopt a flexible, multifaceted approach. Aligning library services to satisfy both quantitative research standards and qualitative assessment measures helps universities enhance their overall ranking and institutional reputation. This flexibility is particularly pertinent in new higher education environments, where regional accreditation measures and international competitiveness need to be weighed against each other. Additionally, the research points out the rising significance of technology uptake and user-focused service provision among academic libraries as a reaction to changing ranking measures and stakeholder demand. The use of digital platforms, artificial intelligence, and data analytics in library processes not only improves accessibility to resources and user experience but also enables the creation of measurable results that ranking bodies value. Such technology aids in enhancing research productivity, engagement of students, and global collaboration, consequently strengthening the library as a strategic driver of organizational objectives. Accordingly, library administration needs to adopt the use of technology and ongoing service refinement to keep pace with relevance and competitiveness within higher education. The implications are not limited to libraries but will have an impact on institutional governance and policy development. University administrators are urged to identify library services as critical elements of academic quality assurance and institutional performance metrics. By incorporating library development in larger strategic plans, universities can create an excellence culture that equates to the multidimensional requirements of ranking systems. Such acknowledgement can bring about greater funding, interdepartmental cooperation, and promotion of libraries as the core of knowledge management and innovation clusters. Additionally, policy makers and accrediting agencies would do well to consider advancing evaluation models more formally to recognize the role of libraries to standardized measures of library performance that reflect current academic needs.

Lastly, this study adds to the continued discussion of higher education quality and competitiveness by highlighting the interdependence between library services and university rankings. It calls for continued investigation of particular library operations and their quantifiable effects on academic achievement, supporting evidence-based decision-making in library management and assessment. Through bridging library science and institutional ranking literature, the research promotes a comprehensive view of how academic libraries are to position themselves as invaluable allies in institutional achievement, equity, and sustainability. Through seeking and integrating knowledge, it develops a more enlightened and holistic approach to the development of higher education that serves students, instructors, and the wider scholarly community.

III. Conclusion

This research has emphasized the important yet often overlooked contribution of academic libraries to the ranking of universities, showing that libraries are key players in institutional excellence in many areas. University ranking systems, whether international such as ARWU, QS, and THE, or national like NAAC and NIRF, include a range of criteria that capture research productivity, teaching, internationalization, governance, and inclusivity. Within these complex frameworks, library services and materials arise as the basis for the provision of research output, the improvement of teaching and learning experiences, and international engagement, all of which directly impact ranking results. The analysis highlights the fact that academic libraries must transform beyond the conventional to satisfy the changing demands of ranking practices. Libraries that position their services strategically against ranking factors—prioritizing access to digital resources, user-focused services, and technological integration—can tremendously boost their institution's competitive standing. The research also indicates the need for libraries to manage the conflicting demands of global and national ranking systems and in the process need to balance quantitative measures with qualitative assessments. In addition, this study highlights the wider institutional significance of considering libraries as key partners in university progress. By aligning library improvement with strategic planning and quality assurance processes, universities can promote more integrated development that not only drives their rankings higher but also enhances teaching and learning, along with students' experiences. Policy documentation and accrediting organizations are recommended to formally include library performance metrics in order to better reflect their contribution to institutional success. Overall, this research makes a further contribution to the conceptualization of how library-related factors cut

across university ranking processes and institutional priorities. This paper argues for the empowerment of academic libraries as central drivers in higher education progress. The outcomes prompt further empirical investigation into quantifiable library contributions to academic performance and the realization that there needs to be ongoing innovation and adaptation within library services. In so doing, academic libraries can establish themselves as essential allies in realizing excellence, equity, and sustainability in the new higher education landscape.

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