



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** IX **Month of publication:** September 2026

DOI: <https://doi.org/10.22214/ijraset.2026.84992>

www.ijraset.com

Call: ☎ 08813907089

E-mail ID: ijraset@gmail.com

Research Funding, Faculty Performance and Institutional Quality in Indian Arts and Science Colleges: An Evidence-Based Study of IKS, ICSSR and Other Grants

Dr. M. Vijayakumar¹, S. Mahendran², S. Priyadharshini³, Dr. V. C. Srinivasan⁴

¹Associate Professor and Head, Computer Technology, Nandha Arts and science college (Autonomous) Erode.

²Assistant Professor, Department of Computer Technology, Nandha Arts and Science College (Autonomous), Erode.

³Assistant Professor, Department of Computer Technology, Nandha Arts and Science College (Autonomous), Erode.

⁴Administrative Officer, Nandha Arts and Science College (Autonomous), Erode.

Abstract: External research grants from the Indian Knowledge Systems (IKS) Division, the Indian Council of Social Science Research (ICSSR) and other agencies are increasingly treated as markers of faculty quality in Indian arts and science colleges. Yet it remains unclear whether such grants improve what faculty actually do, or mainly improve how visibly their work is recorded. This article develops an evidence-based framework for answering that question. It asks to what extent IKS, ICSSR and other grants improve faculty performance, and how accurately and fairly the resulting contributions are represented in research profiles, annual faculty appraisal and institutional quality assessment.

Drawing on fifteen recent studies of research funding, research evaluation and research information systems (2022–2025), the article argues that the international evidence on grant effects is mixed once selection bias is controlled, and that documentation systems such as VIDWAN, IRINS, ORCID and Google Scholar record visibility rather than quality. It proposes a mixed-method, longitudinal comparative design covering 30–40 government, aided and self-financing colleges, comparing funded faculty with comparable unsuccessful applicants over three years before and up to three years after the grant. A key safeguard is to analyse performance after removing the appraisal points awarded merely for receiving a grant. The article also offers a discipline-sensitive contribution map, a verified project register and an illustrative 100-point research-contribution rubric for validation, together with a versioned mapping of eligible outcomes to NAAC and NIRF requirements.

Keywords: Research funding; faculty performance appraisal; ICSSR; Indian Knowledge Systems; NAAC; NIRF; research information systems; ORCID; arts and science colleges; responsible research assessment.

I. INTRODUCTION

Arts and science colleges educate the largest share of India's undergraduate students, yet they sit at the margins of the national research system. Research funding, ranking and accreditation frameworks were largely designed around universities and institutes of national importance. When colleges enter these frameworks, their faculty are often judged by indicators, such as grant amounts, publication counts and citation totals, that fit laboratory science better than a Tamil critical edition, an oral-history archive or a district-level field survey. Three policy developments make the question of research funding in colleges more urgent. First, the National Education Policy 2020 calls for research to be embedded across higher education and for Indian Knowledge Systems to be integrated into teaching and research (Ministry of Education, 2020). The IKS Division of the Ministry of Education now funds research centres and projects that are well suited to humanities and interdisciplinary departments in colleges. Second, the ICSSR continues to support major and minor research projects, special calls and fellowships across the social and human sciences (ICSSR, 2025). Third, NAAC accreditation and NIRF rankings increasingly reward documented research activity, which gives colleges strong incentives to collect grants and to record them. The national picture shows how uneven research capacity remains. In the NIRF 2024 exercise, about 28% of the 1,596 college applicants reported no research publications at all (Chettri, 2024). Across India more broadly, only about 55% of Web of Science publications from 2011 to 2022 acknowledged any funding, well below the shares for China, the United States or Germany (Singh et al., 2024).

Research output is also concentrated in particular states and institution types (Kanauija et al., 2023). For many college teachers, an ICSSR or IKS grant may be the only external research support available across a career.

These incentives create a measurement problem. A grant can improve performance by buying time, archives, fieldwork, equipment or student assistance. But a grant can also improve how performance looks. A faculty member who receives a grant is prompted to update a VIDWAN or ORCID profile, list outputs in the Internal Quality Assurance Cell (IQAC) report and claim appraisal points. Updating a digital profile makes work more visible, but it does not by itself demonstrate improved teaching or research quality. If the appraisal system also awards points simply for receiving a grant, then any finding that funded faculty score higher may reflect how the score was built rather than any change in performance.

This article therefore separates two questions that are often merged: whether external funding improves faculty performance, and whether institutional systems represent that performance accurately and fairly. It contributes (a) a synthesis of recent international and Indian evidence on funding effects and research documentation; (b) a discipline-sensitive framework of contribution domains for arts and science colleges; (c) a mixed-method longitudinal design with explicit safeguards against circular measurement; and (d) a practical institutional register and an illustrative rubric for validation. The article is a design and framework paper: it states what the proposed study should measure and how, and does not report empirical results.

II. REVIEW OF LITERATURE

A. Does research funding improve performance?

The most rigorous recent evidence suggests that the effect of a grant on measurable output is smaller and less certain than funders usually assume. Barnett et al. (2024) analysed the first randomised trial of research funding, using the modified lottery of the Health Research Council of New Zealand. Among 88 short-listed researchers followed for an average of 3.8 years, the publication rate ratio for funded researchers was 0.95 (95% credible interval 0.67–1.39), with only a small delayed gain in citations. Ding and Moreira (2025) studied 11,537 principal investigators funded by the US National Science Foundation's social, behavioural and economic sciences directorate. Simple two-way fixed-effects models showed large gains, but once the authors corrected for non-random selection of grantees and for staggered timing, the funding effect on both the quantity and the quality of output disappeared.

Other designs give more positive but still qualified results. Ghirelli et al. (2023) found that winning a European Research Council grant had positive long-term effects under a difference-in-differences design but no significant effect under a regression discontinuity design that compared applicants close to the funding threshold. Sattari et al. (2022) showed that funding produces "ripple effects" through the people it employs, so that output may appear in the work of students and team members rather than only in the principal investigator's record. Thelwall et al. (2023), using peer-review scores for 113,877 articles in the UK Research Excellence Framework 2021, found that funded articles were of higher quality in 30 of 34 assessment units, but cautioned that the association may reflect funders selecting strong researchers rather than funding causing quality. The same study showed very large disciplinary differences: roughly 16% of articles in Theology and Religious Studies acknowledged funding, against more than 91% in Biological Sciences. Coccia and Roshani (2024) similarly show that the citation advantage of funded research varies between basic and applied fields.

Three lessons follow for Indian colleges. First, naive comparisons of funded and unfunded faculty will overstate grant effects because grants go to already active researchers. Second, effects are lagged and uneven, so recent projects should not be judged on outputs that have not yet had time to appear. Third, disciplinary norms matter: humanities scholarship may be excellent without being grant-dependent or journal-based.

B. Research funding in the Indian context

Indian evidence on funding effects in colleges is thin. Singh et al. (2024) mapped funding acknowledgements in 920,284 Indian Web of Science publications from 2011 to 2022 and found that 54.79% acknowledged funding. DST, CSIR and UGC were the most frequently acknowledged Indian agencies, while ICSSR did not appear among the fifty most acknowledged agencies in citation-index data. This matters because ICSSR and IKS outputs often take the form of books, reports, translations and regional-language publications that such databases do not capture. Kanauija et al. (2023) documented wide variation in research output across Indian states, and Sami (2023) argued from an Indian perspective that funding processes need to be rethought so that application burdens and review practices do not disadvantage researchers outside elite institutions. None of these studies examines whether grant receipt changes the teaching, mentoring or community contributions of college faculty.

C. Evaluation systems and their incentives

What is measured shapes what academics do. Pontika et al. (2022) analysed review, promotion and tenure policies across seven countries and found that indicators of research quantity dominate, while openness and responsible practice receive far less attention. Groen-Xu et al. (2023) showed that the UK Research Excellence Framework created short-term incentives that shifted the timing and character of academic output around assessment deadlines. For India, the implication is direct: if annual appraisal and IQAC reporting reward grant receipt and publication counts, faculty will rationally optimise for those counts, and the counts will cease to be good evidence of quality.

D. Research information systems and profiles

Digital research profiles make activity visible but record it unevenly. Porter et al. (2025) surveyed faculty at 31 US research universities and found an overall ORCID adoption rate of 72%, ranging from 17% in the visual and performing arts to 93% in the biological and biomedical sciences. Wang et al. (2024) examined how far ORCID profiles can be relied upon for curriculum-vitae analysis, highlighting variation in data availability across record sections. Houghton and Foster (2024) documented faculty resistance where ORCID was experienced as an instrument of institutional monitoring. In India, IRINS, developed by INFLIBNET, integrates institutional profiles with ORCID, Scopus, Crossref and Google Scholar, and VIDWAN serves as a national expert database (INFLIBNET Centre, n.d.). Together these studies suggest that profile completeness will differ systematically by discipline and that low completeness in the humanities should not be read as low performance.

III. RESEARCH GAP, QUESTION AND OBJECTIVES

A. Research gap

The literature reviewed above leaves four gaps. First, almost all causal studies of grant effects concern research-intensive universities in Europe, North America or Oceania; none examines Indian arts and science colleges, where teaching loads are heavy and grants are small. Second, existing studies measure performance almost entirely through publications and citations, ignoring teaching enrichment, student mentoring and community benefit, which are central to the mission of colleges. Third, no study distinguishes actual improvement in performance from improved documentation of existing achievement. Fourth, there is no validated mapping between funded-project outcomes and the current NAAC and NIRF requirements that colleges actually face.

B. Central research question

To what extent do IKS, ICSSR and other research grants improve faculty performance, and how accurately and fairly are the resulting contributions represented in research profiles, faculty appraisal and institutional quality assessment?

The question has two linked parts. The *performance* part asks whether, how and under what conditions external funding changes research quality, teaching enrichment, student mentoring, interdisciplinary collaboration and community benefit. The *representation* part asks whether those contributions are completely, accurately and fairly recorded in the systems that determine appraisal, accreditation and ranking.

C. Objectives

- 1) Compare the performance of funded and comparable non-funded faculty before and after grant receipt.
- 2) Examine how grant size, duration, discipline, investigator role and institutional support influence outcomes.
- 3) Assess whether funded research improves teaching materials, student research opportunities and community engagement.
- 4) Measure the completeness and accuracy of records across institutional systems and scholarly profiles.
- 5) Develop a fair appraisal framework that recognises humanities and science contributions without relying solely on grant amounts or citation counts.
- 6) Prepare a documented mapping of eligible outcomes to the applicable NAAC and NIRF requirements.

D. Working hypotheses

Consistent with the evidence in Section 2, the study would test the following propositions rather than assume them:

- 1) H1. After matching on pre-grant activity, funded faculty show a modest increase in verified research outputs relative to comparable unsuccessful applicants, with the effect appearing mainly two to three years after sanction.
- 2) H2. The raw appraisal-score gap between funded and non-funded faculty is substantially larger than the gap in verified performance once grant-receipt points are removed.

- 3) H3. Funding effects on teaching materials and student research are larger where the college provides release time, research assistance and timely fund transfer.
- 4) H4. Profile completeness in ORCID, VIDWAN, IRINS and Google Scholar is lower in humanities and regional-language disciplines than in the sciences, independently of verified output.
- 5)

IV. CONCEPTUAL FRAMEWORK

The framework rests on a simple chain: grant inputs → activities → verified outputs → uses in teaching, mentoring and community → documentation in institutional and scholarly systems → recognition in appraisal, NAAC and NIRF. Performance improvement happens in the middle of the chain; documentation and recognition happen at the end. The study measures each link separately so that a gain at the documentation stage is not mistaken for a gain in performance.

A. Discipline-sensitive contribution domains

Arts and science colleges combine departments with very different forms of scholarship. Following the evidence that funding intensity and publication norms vary sharply across fields (Thelwall et al., 2023), the framework assesses each department group against the contributions that are meaningful in that field (Table 1).

Table 1. Proposed contribution domains by department group

Department group	Contributions the study should assess
Tamil, English, History and other humanities	Scholarly books, critical editions, translations, archives, oral histories, digital collections and teaching resources
Commerce, Management and Social Sciences	Field studies, policy briefs, community interventions, entrepreneurship research and stakeholder adoption
Computer Science, Mathematics and Natural Sciences	Research articles, software, datasets, models, laboratory methods and validated prototypes
Interdisciplinary teams	Collaborative publications, student research, digital humanities, environmental studies and community knowledge documentation

These are proposed appraisal domains for the study, not a claim that every output receives marks under every funding or assessment framework. IKS-funded projects are likely to cut across the first and last rows, for example where a Tamil department documents traditional ecological knowledge with an environmental science team.

B. Mapping outcomes to recording and assessment systems

Each system in the Indian research-information landscape records a different thing. Treating them as interchangeable is a common source of double counting and misrepresentation. Table 2 sets out what each system should record and the distinction the study must preserve.

Table 2. Mapping of funded-project outcomes to recording and assessment systems

System	What should be recorded or assessed	Important distinction
Faculty performance appraisal	Verified PI/Co-PI contributions, completed milestones, quality of outputs, student mentoring, teaching applications and community outcomes	Credit must follow the college's approved appraisal policy. Grant receipt should be assessed separately from successful delivery.
VIDWAN / IRINS	Faculty identity, affiliation, expertise, publications and project information supported by available fields	VIDWAN supports expert discovery; IRINS supports institutional research information management. Profile presence is not an appraisal score.
ORCID	Funding information under <i>Funding</i> ; publications, datasets and other eligible outputs under <i>Works</i> , with identifiers where available	Funding records and research outputs are separate records. ORCID records identity and activities; it does not award performance marks.

System	What should be recorded or assessed	Important distinction
Google Scholar	Correctly attributed publications and their citation indicators	Use for publication visibility and citation tracking, not as a grant register or proof of research quality.
NAAC	Verified evidence of research support, outputs, innovation, extension, collaboration and relevant teaching contributions	Map against the manual and accreditation route applicable to the institution and assessment cycle; older autonomous-college manuals should not be assumed to give current metric numbers.
NIRF (College category)	Eligible institutional publications and citation evidence, plus other applicable institutional outcomes	In the 2025 College methodology, Research and Professional Practice comprises publications and publication quality, with no separate sponsored-project-income component. Funding may support eligible outputs, but a grant does not by itself generate ranking marks.

Two cautions follow. First, the NIRF documents available at the time of writing list the 2025 methodologies (National Institutional Ranking Framework [NIRF], 2025). The study should version its mapping and update it when the relevant assessment-year methodology is published, and should examine University and College category rules separately. Second, ORCID and Google Scholar coverage is uneven by discipline (Porter et al., 2025), and ORCID data vary in completeness across record sections (Wang et al., 2024). Low profile completeness must therefore be treated as a documentation outcome to be explained, not as evidence of low performance.

C. Moderating conditions

The framework expects grant effects to depend on conditions that are observable at college level: grant size and duration; the faculty member's role as PI or Co-PI; discipline; teaching load and any release time; the speed with which sanctioned funds actually reach the college; availability of research assistants and library or laboratory access; and IQAC capacity to verify and record outputs. These conditions correspond to Objective 2 and hypothesis H3.

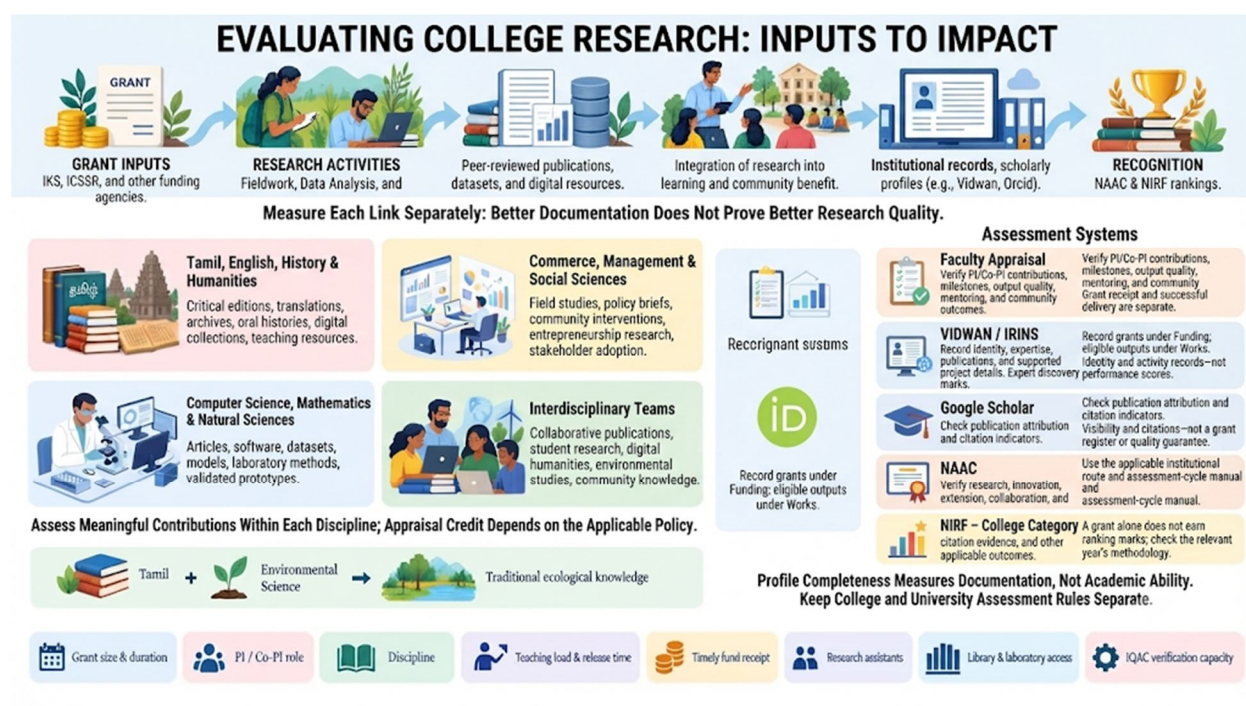


Fig 1: Evaluating College Research: From Inputs to Impact and Recognition

This info graphic illustrates the pathway from grant inputs to research activities, verified outputs, teaching integration, documentation, and recognition. It emphasizes that evaluation must span diverse academic disciplines and assessment systems, reminding stakeholders that profile completeness measures administrative documentation rather than true academic ability or research quality.

V. METHODOLOGY

A. Research design

The study adopts a mixed-method, longitudinal comparative design. The quantitative strand estimates change in verified performance for funded faculty relative to comparable faculty over time. The qualitative strand explains the mechanisms behind those changes and the obstacles to documenting them. The two strands are integrated at the interpretation stage, so that interview evidence can explain why an effect appears in one discipline or institution type and not in another.

B. Sample and participants

The provisional sample is 30–40 government, aided and self-financing arts and science colleges across selected Indian states, including both autonomous and affiliated institutions. Final numbers should follow an assessment of access feasibility and statistical power rather than a fixed target. Within each college, participants include:

- funded faculty (PIs and Co-PIs of IKS, ICSSR and other external projects);
- comparable unsuccessful applicants or non-funded faculty, matched on discipline, career stage, qualification, designation and pre-grant activity;
- principals, IQAC coordinators, research coordinators and librarians.

Unsuccessful applicants are the preferred comparison group because they share the motivation to seek funding; this reduces the selection bias that inflates naive funded-versus-unfunded comparisons (Barnett et al., 2024; Ding & Moreira, 2025).

C. Data sources and time window

Records include grant applications, sanction letters, actual fund receipts, utilisation certificates, project reports, annual appraisals, publications and other outputs, teaching portfolios and student participation records. Profile data are collected from VIDWAN, IRINS, ORCID and Google Scholar and compared with the verified institutional record.

Where available, the study examines three years before and up to three years after funding. Because research effects are lagged (Barnett et al., 2024; Ding & Moreira, 2025), recent projects are analysed separately: their outputs may not yet have appeared, and treating them as failures would bias results downward.

D. Measures

Table 3. Outcome domains and illustrative indicators

Domain	Illustrative indicators	Verification source
Research quality and outputs	Peer-reviewed articles, books, critical editions, translations, datasets, software; expert-panel quality rating	Output copies, identifiers, blinded expert review
Project delivery	Milestones met, final report accepted, utilisation certificate submitted	Funder and college records
Teaching enrichment	New or revised course units, teaching resources, reading packs, lab exercises derived from the project	Syllabi, Board of Studies minutes, teaching portfolios
Student mentoring	Students engaged as assistants, student papers, projects and presentations	Student participation records
Collaboration	Cross-department or inter-institutional co-authorship and co-investigation	Output records, MoUs
Community, cultural or policy benefit	Community workshops, archive deposits, policy briefs, stakeholder adoption	Partner letters, event records
Documentation accuracy	Completeness and correctness of each profile relative to the verified record	Record-linkage audit

For documentation accuracy, each verified output is checked against each system. Completeness is the share of verified outputs present; accuracy is the share of listed items that are correctly attributed and classified; duplication is the share of items counted more than once at institutional level.

E. Analysis

The analysis compares changes over time using matched groups and multilevel models, with faculty nested within departments and colleges. Difference-in-differences estimation is used only where its assumptions, including comparable pre-funding trends, are credible. Because grants begin in different years for different faculty, estimators designed for staggered adoption are preferred to conventional two-way fixed-effects models, with event-study plots and sensitivity analyses for departures from parallel trends (Roth et al., 2023). Heterogeneity is examined by grant size, duration, discipline, investigator role and institutional support.

A crucial safeguard is to analyse performance **excluding the appraisal points awarded merely for receiving a grant**. The study reports three scores for every faculty member: (a) the official appraisal score; (b) the score with grant-receipt points removed; and (c) an independent verified-performance score built from Table 3. Comparing (a) with (b) and (c) tests hypothesis H2 directly. Without this step, a finding that funded faculty have higher appraisal scores may simply reflect how the score was constructed.

F. Qualitative strand

Semi-structured interviews and focus groups investigate administrative delays in fund release, workload and release time, mentoring support, disciplinary differences in what counts as an output, and obstacles to documenting achievements in profiles and IQAC reports. Transcripts are coded thematically, with codes derived partly from the framework and partly from the data.

G. Ethics and data protection

The study requires institutional ethics approval and informed consent from all interviewees. Appraisal and financial records are handled under data-sharing agreements with each college, pseudonymised before analysis and reported only in aggregate. Participants' concerns about monitoring (Houghton & Foster, 2024) are addressed by making clear that the study evaluates systems, not individuals.

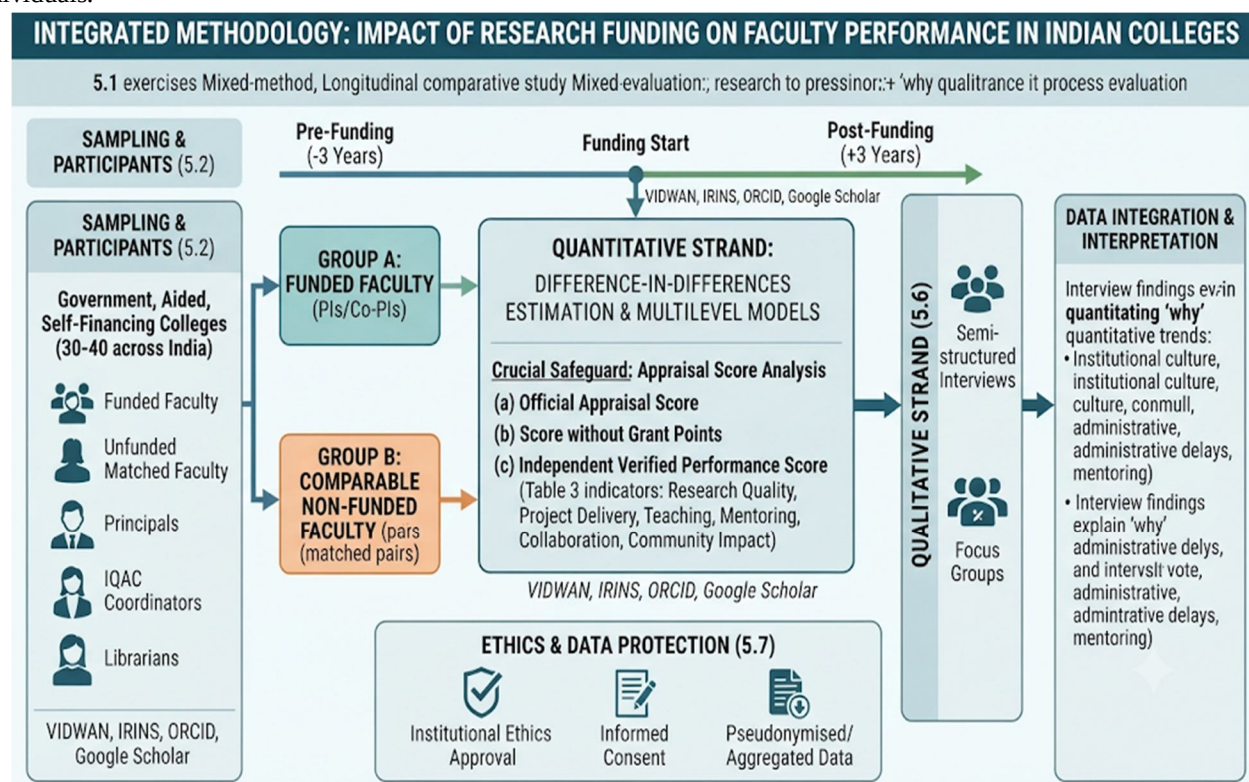


Fig 2: Integrated Mixed-Method Methodology for Evaluating Research Funding Impact in Indian

VI. PROPOSED INSTITUTIONAL FRAMEWORK

A. A single verified project register

The most practical reform a college can make is to maintain one verified project register, owned by the IQAC and research committee, from which all other reports are generated. Each record should contain the following fields:

Table 4. Fields in the verified project register

Field group	Fields
Identity	Faculty ID, VIDWAN ID, ORCID iD
Grant	Funder, grant number, PI/Co-PI role, sanctioned amount, amount received, expenditure, project start and end dates
Outputs	Output identifiers (DOI, ISBN, URL, repository handle), evidence links
Assessment	Appraisal year, applicable assessment criteria (NAAC key indicator, NIRF parameter where relevant)

Recording both *sanctioned* and *received* amounts matters because delays in fund release are a known constraint on delivery and should not be held against the investigator. Each output is linked to its supporting project without being duplicated in institutional totals. A co-authored paper can legitimately appear in several individual profiles while remaining one institutional publication. The register therefore becomes the single source for appraisal, IQAC reports, NAAC data and NIRF submissions, and profile platforms such as ORCID and IRINS are updated from it rather than the reverse.

B. An illustrative research-contribution rubric

For the study, an illustrative 100-point research-contribution rubric is proposed for testing and validation (Table 5). Its design deliberately limits the weight of documentation and gives no points for merely holding a grant.

Table 5. Illustrative 100-point research-contribution rubric (for validation)

Component	Proposed weight
Research quality and verified outputs	25
Project delivery and responsible fund management	20
Teaching enrichment	20
Student research and mentoring	15
Community, cultural or policy contribution	15
Accurate documentation and profile maintenance	5
Total	100

Three design choices are worth noting. First, research quality is judged on verified outputs appropriate to the discipline (Table 1), so a critical edition in Tamil and a peer-reviewed article in chemistry can both earn full credit. Second, 35 of the 100 points go to teaching enrichment and student mentoring, reflecting the core mission of colleges and responding to evidence that funding benefits often reach team members rather than only the principal investigator (Sattari et al., 2022). Third, documentation carries only 5 points: accurate records are expected professional practice, but they are evidence of work, not the work itself.

The rubric is a research instrument for validation, not an official UGC, NAAC or NIRF scoring system. It should supplement, not replace, the college's wider appraisal of teaching and service. Validation would involve expert review of content, inter-rater reliability testing across disciplines and checks that scores do not systematically disadvantage humanities or regional-language scholarship.

VII. DISCUSSION AND EXPECTED IMPLICATIONS

A. Separating performance from visibility

The central argument of this article is that research funding in Indian colleges is currently evaluated in a way that cannot distinguish improvement from recording. The international evidence gives good reason for caution. When selection is handled carefully, grant effects on publication output are often small, delayed or statistically uncertain (Barnett et al., 2024; Ding & Moreira, 2025; Ghirelli et al., 2023). Where funded work is of higher quality, part of the difference may reflect who wins grants rather than what grants do (Thelwall et al., 2023). If similar patterns hold in Indian colleges, appraisal systems that reward grant receipt will systematically overstate the contribution of funded faculty and understate that of capable colleagues who did not apply or were unsuccessful.

This does not mean grants are unimportant. For humanities and social science faculty in colleges, an ICSSR or IKS grant may provide the only means of paying for fieldwork, archival travel, transcription, translation or research assistance. The likely effect of such funding is not only more publications but better teaching resources, more student involvement and new community relationships. Those are precisely the outcomes that current indicators miss, and the proposed design measures them explicitly.

B. Implications for colleges

For principals and IQAC coordinators, the study points to three practical changes. First, maintain a single verified project register as the source for all reporting, which reduces duplication and makes NAAC and NIRF submissions easier to defend. Second, separate points for grant *receipt* from credit for grant *delivery* in the appraisal policy, so that successful completion, quality outputs and student benefit are rewarded rather than the sanction letter. Third, invest in the conditions that the framework expects to moderate grant effects: timely fund transfer, modest release time and support for research assistants.

C. Implications for funders and regulators

For IKS and ICSSR, the findings would show whether small and medium grants to colleges produce benefits beyond publications, and where fund-release delays or administrative burdens erode those benefits. Such evidence supports the case, made from an Indian perspective by Sami (2023), for funding processes that do not disadvantage researchers outside elite institutions. For NAAC, the discipline-sensitive domains in Table 1 offer a way to recognise critical editions, translations, archives and community documentation alongside journal articles. For NIRF, the study's versioned mapping clarifies that, in the 2025 College methodology, grants matter to research scores only through eligible publications, and it highlights what the College category currently does not capture.

D. Implications for responsible research assessment

The evidence that evaluation criteria reshape academic behaviour (Groen-Xu et al., 2023; Pontika et al., 2022) implies that any new rubric must be tested before it is used for high-stakes decisions. That is why the 100-point rubric is framed as an instrument for validation. Weighting documentation lightly, and treating low profile completeness in the humanities as something to explain rather than penalise (Porter et al., 2025), keeps the focus on what faculty actually contribute. The approach is also consistent with concerns that research-information systems can become instruments of surveillance if their purpose is not clearly limited (Houghton & Foster, 2024).

VIII. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The proposed design has limits that should be stated in advance. First, funding in Indian colleges is not randomly allocated, and matching on observed characteristics cannot remove all selection bias; unobserved motivation, networks and institutional favour may still differ between funded and comparison faculty. The randomised evidence now emerging abroad (Barnett et al., 2024) is not yet available for Indian funders. Second, appraisal, financial and output records may be incomplete, especially for earlier years, and colleges that agree to participate may keep better records than those that decline. Third, the six-year window may be too short for books, critical editions and long-term community outcomes. Fourth, NAAC and NIRF methodologies change between cycles, so the mapping must be versioned and re-checked. Fifth, expert quality ratings introduce reviewer judgement, which requires blinding and inter-rater checks.

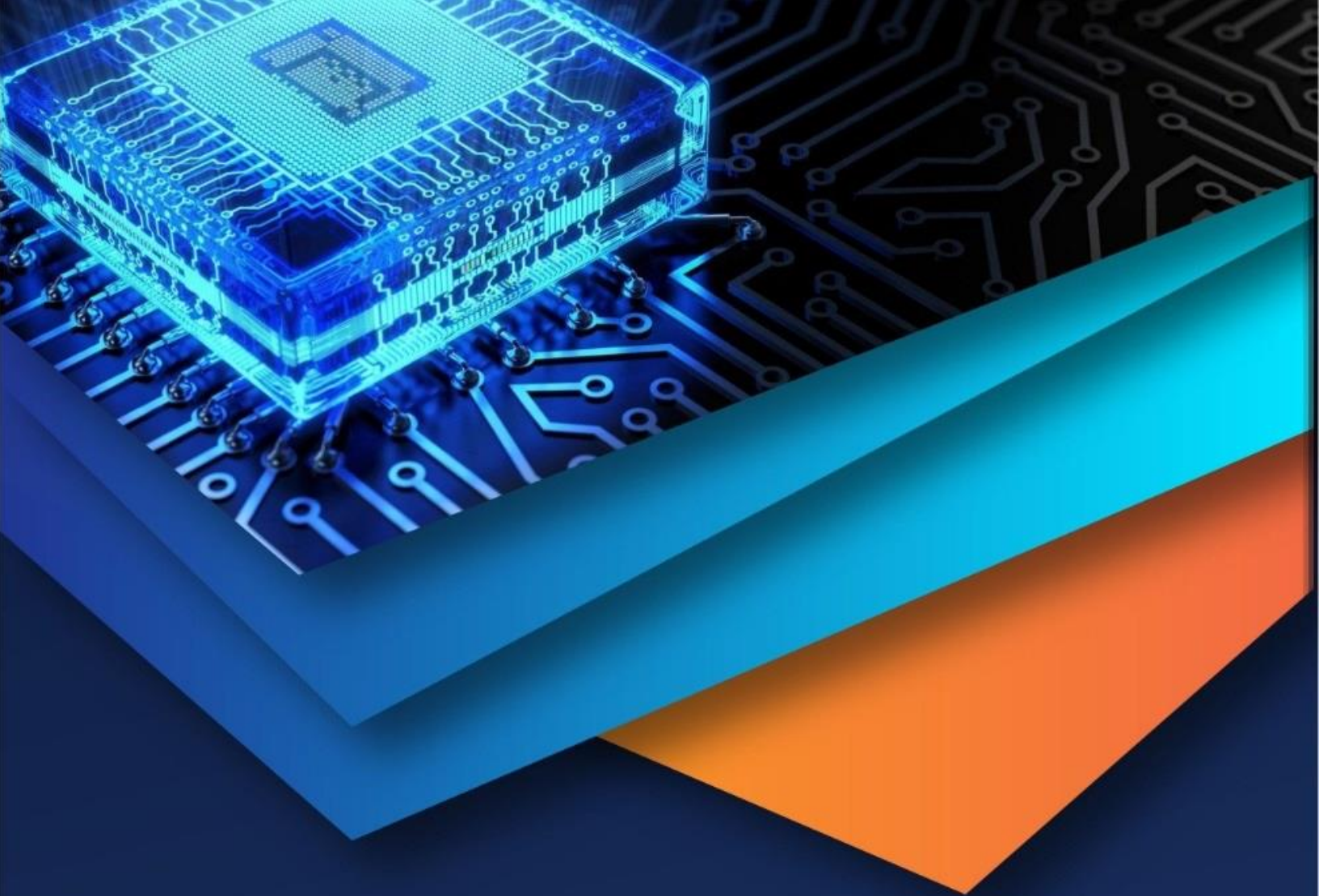
Future research could extend the design to universities and compare them with colleges; follow cohorts over longer periods; study specific IKS research centres as institutional rather than individual interventions; and, if funders are willing, embed partial lotteries among equally rated proposals to allow stronger causal estimates. Regional-language publication and citation practices also deserve dedicated study, since much Tamil and other Indian-language scholarship is invisible to international citation databases.

IX. CONCLUSION

External grants from IKS, ICSSR and other agencies can expand what college faculty are able to do, but the systems that record and reward that work do not currently show whether performance has improved or merely become more visible. This article has argued, on the basis of recent international and Indian evidence, that the two must be measured separately. It has proposed a mixed-method longitudinal design that compares funded faculty with comparable unsuccessful applicants, analyses performance after removing grant-receipt points, treats teaching, mentoring and community benefit as outcomes in their own right, and audits the completeness of VIDWAN, IRINS, ORCID and Google Scholar records against a verified institutional register. It has also offered a discipline-sensitive contribution map, a versioned mapping to NAAC and NIRF, and an illustrative 100-point rubric for validation. If implemented, the study would give colleges a defensible basis for appraisal, give funders evidence on what small grants achieve outside elite institutions, and give accreditation and ranking bodies a clearer view of scholarship that journal-centred indicators miss. The underlying principle is simple: credit should follow verified contribution, not the sanction letter or the profile page.

REFERENCES

- [1] Barnett, A., Blakely, T., Liu, M., Garland, L., & Clarke, P. (2024). The impact of winning funding on researcher productivity, results from a randomized trial. *Science and Public Policy*, 51(6), 1042–1050. <https://doi.org/10.1093/scipol/scae045>
- [2] Coccia, M., & Roshani, S. (2024). General laws of funding for scientific citations: How citations change in funded and unfunded research between basic and applied sciences. *Journal of Data and Information Science*, 9(4), 71–89. <https://doi.org/10.2478/jdis-2024-0005>
- [3] Ding, Y., & Moreira, F. (2025). Funding and productivity: Does winning grants affect the scientific productivity of recipients? Evidence from the social sciences and economics. *Scientometrics*, 130, 1831–1870. <https://doi.org/10.1007/s11192-025-05277-3>
- [4] Ghirelli, C., Havari, E., Meroni, E. C., & Verzillo, S. (2023). The long-term causal effects of winning an ERC grant (IZA Discussion Paper No. 16108). IZA Institute of Labor Economics. <https://www.iza.org/publications/dp/16108/the-long-term-causal-effects-of-winning-an-erc-grant>
- [5] Groen-Xu, M., Bös, G., Teixeira, P. A., Voigt, T., & Knapp, B. (2023). Short-term incentives of research evaluations: Evidence from the UK Research Excellence Framework. *Research Policy*, 52(6), Article 104729. <https://doi.org/10.1016/j.respol.2023.104729>
- [6] Houghton, F., & Foster, A. (2024). Resistance and power in Irish higher education: ORCID and the monitored university. *The Journal of Academic Librarianship*, 50(2), Article 102853. <https://doi.org/10.1016/j.acalib.2024.102853>
- [7] Kanaujia, A., Nandy, A., Singh, P., & Singh, V. K. (2023). Mapping the research output from Indian states. *Current Science*, 124(11), 1245–1255. <https://doi.org/10.18520/cs/v124/i11/1245-1255>
- [8] Pontika, N., Klebel, T., Correia, A., Metzler, H., Knoth, P., & Ross-Hellauer, T. (2022). Indicators of research quality, quantity, openness, and responsibility in institutional review, promotion, and tenure policies across seven countries. *Quantitative Science Studies*, 3(4), 888–911. https://doi.org/10.1162/qss_a_00224
- [9] Porter, S. R., Umbach, P. D., & Willis, C. (2025). Understanding ORCID adoption among academic researchers. *Scientometrics*, 130(5), 2783–2797. <https://doi.org/10.1007/s11192-025-05300-7>
- [10] Roth, J., Sant'Anna, P. H. C., Bilinski, A., & Poe, J. (2023). What's trending in difference-in-differences? A synthesis of the recent econometrics literature. *Journal of Econometrics*, 235(2), 2218–2244. <https://doi.org/10.1016/j.jeconom.2023.03.008>
- [11] Sami, N. (2023). Rethinking the research funding process: An Indian perspective. *International Journal of Urban and Regional Research*, 47(2), 312–317. <https://doi.org/10.1111/1468-2427.13148>
- [12] Sattari, R., Bae, J., Berkes, E., & Weinberg, B. A. (2022). The ripple effects of funding on researchers and output. *Science Advances*, 8(16), Article eabb7348. <https://doi.org/10.1126/sciadv.abb7348>
- [13] Singh, V. K., Singh, P., Kanaujia, A., & Nandy, A. (2024). Who is funding Indian research? A look at major funding sources acknowledged in Indian research papers (arXiv:2411.15045) [Preprint]. arXiv. <https://arxiv.org/abs/2411.15045>
- [14] Thelwall, M., Kousha, K., Abdoli, M., Stuart, E., Makita, M., Font-Julián, C. I., Wilson, P., & Levitt, J. (2023). Is research funding always beneficial? A cross-disciplinary analysis of U.K. research 2014–20. *Quantitative Science Studies*, 4(2), 501–534. https://doi.org/10.1162/qss_a_00254
- [15] Wang, T., Li, Z., Huang, S., & Yang, B. (2024). Is ORCID a reliable source for CV analysis? Exploring the data availability of ORCID academic profiles. *Scientometrics*, 129(3), 1637–1662. <https://doi.org/10.1007/s11192-024-04944-1>
- [16] **Policy and institutional sources**
- [17] Indian Council of Social Science Research. (2025). Annual report 2024–25. <https://www.icssr.org/sites/default/files/Annual-Report-2025-English.pdf>
- [18] INFLIBNET Centre. (n.d.). About IRINS. Retrieved September 28, 2026, from <https://irins.inflibnet.ac.in/about>
- [19] Ministry of Education. (2020). National Education Policy 2020. Government of India. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- [20] National Institutional Ranking Framework. (2025). India Rankings 2025. Ministry of Education, Government of India. https://www.nirfindia.org/nirfpdcdn/2025/pdf/Report/IR2025_Report.pdf



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)