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Benchmarking Progress: Key Performance Metrics for NEP Implementation in Higher Education of INDIA Part-I

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***Abstract*— The National Education Policy 2020 (NEP 2020), approved by the Union Cabinet on 29 July 2020, presents a comprehensive vision for transforming India's education system, particularly in the area of higher education. Following its announcement, the University Grants Commission (UGC) initiated several steps to support its implementation, including issuing guidelines and promoting the transition of institutions toward multidisciplinary structures. However, nearly four years after its introduction, there is still limited systematic evidence available on how effectively these reforms have been implemented across higher education institutions. This study attempts to address this gap by proposing a set of performance indicators that can be used to assess the implementation of NEP 2020 in a structured manner. The indicators are developed based on key reform areas such as quality enhancement of institutions, institutional restructuring, and holistic and multidisciplinary education. In addition, the paper introduces a simple quantitative framework, termed the NEP Implementation Index (NEPII), to provide an indicative measure of implementation progress. The proposed framework is exploratory in nature and is intended to serve as a guiding tool rather than a definitive evaluation model. It offers a starting point for institutions and researchers to move toward more data-oriented and comparative assessment. The study also highlights practical challenges in implementation and emphasizes the need for further research, broader data collection, and expert input to refine and validate the proposed indicators.**

***Keywords*—NEP 2020, Information and Communication Technology (ICT), Higher Education, Reforms.**

***JEET Category*—Disccusion**

I. INTRODUCTION

In the history of India's development, higher and technical education has played a vital role, with schooling as its foundation. During British rule, India's education system was influenced by colonial policies. Post-independence, various national education policies were implemented to reform and improve educational opportunities. The First National Policy on Education in 1968 aimed to ensure equal opportunities for rural and urban sectors, promoting Hindi as a national language, Sanskrit teaching, and physical education. It also proposed increasing education expenditure to 6% of the national income. The Second National Policy on Education intended to work on inequalities, ensure equal breaks, and promote a child-centred approach which was brought in 1986. It presented Operation Blackboard for primary schools and expanded open and distance university systems. Further revisions made in 1992 and 2005 announced measures such as the Common Entrance Examination for vocational and technical training to enhance vocational education (Nayak & Jaswinder, 2023).

These educational reforms made aided significant technological and scientific developments. In 1950 The Planning Commission established which line up scientific research, due to that national laboratories and research centres developed. India witnessed Green Revolution in the 1960s which significantly increased agricultural productivity, changing the status of India from a food importer to a self-sufficient nation. In 1975, India launched its first satellite, Aryabhata, marking its entry into space research. The 1980s witnessed the development of strategic missile systems, including the successful testing of Agni in 1989(Amrit Mahotsav, n.d.).

The 1990s substantial progresses were seen such as DNA fingerprinting and the Pokhran-II nuclear tests in 1998. Starting years of 21st century i.e. early 2000s witnessed India's debut lunar mission, Chandrayaan-I, and the Mars Orbiter Mission, set India in the field of space exploration. In 2014, a milestone added in this journey when India declared as polio free nation and arisen as a key contributor whose efforts are marked as the producer and distributer of COVID-19 vaccines globally. Gaganyaan Programme for human spaceflight and the 'Startup India' movement to promote innovation and entrepreneurship demonstrate India's ongoing commitment to scientific and technological development. These accomplishments highlight the crucial role of education policies in shaping India's journey towards becoming a technologically advanced nation (Amrit Mahotsav, n.d.).

The landscape of higher education in India has seen significant shifts from traditional core branches to

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multidisciplinary fields, yet students often encounter employability challenges due to evolving industry demands. National Education Policy (NEP) 2020 is designed by considering the above listed issues, represents a reshaping step in the Indian education system. This policy purposes to reduce curriculum content, enhance essential learning, and promote critical thinking. The NEP 2020 introduces a new 5+3+3+4 structure, emphasizing holistic, experiential, and analysis-based learning tailored to cognitive development stages (Nayak & Jaswinder, 2023).

NEP 2020 was announced on July 29, 2020, the University Grants Commission (UGC) issued advices to universities to implement this policy, focus on governance reforms and stakeholder involvement. Initiatives taken by UGC includes the establishment of an Academic Bank of Credits for student mobility, guidelines regarding multiple entry and exit in academic programs, and integration of apprenticeship and internship programs to increase employability. Need of revision of Regulations for open and distance learning (ODL) and online education to make it easy to access, and guidelines to promote the internationalization of higher education have been put in place. Moreover, the UGC's "Quality Mandate" tackles key higher education challenges by advocating for multidisciplinary programs, faculty induction, human values, professional ethics, sustainable campuses, and life skills development. Institutions are urged to establish "NEP Cells" to oversee these initiatives, aligning with NEP 2020's goal of positioning India as a global knowledge superpower University Grants Commission, 2020 ,2021).

Despite these efforts, there is still limited information on the implementation status of the NEP 2020 in higher education. This research paper aims to establish a foundational understanding of the performance indicators of NEP 2020 and provide recommendations for enhancement. Through this, it aims to steer future research and draw attention to this crucial area.

II. LITERATURE REVIEW AND OBJECTIVE

The literature on the National Education Policy 2020 (NEP 2020) has grown steadily since its introduction; however, it remains largely exploratory and descriptive in nature. Most existing studies focus on interpreting the policy framework, highlighting its potential to transform India's higher education system, and aligning it with global educational trends. A closer examination of the literature reveals that while the conceptual strengths of NEP 2020 are widely acknowledged, relatively limited attention has been paid to assessing the extent and effectiveness of its implementation, particularly through measurable and standardized indicators. This indicates a clear gap between policy discourse and empirical evaluation.

NEP 2020 proposes a comprehensive transformation of India's higher education system through multidisciplinary learning, flexible curricula, and integration of vocational education. It introduces key structural reforms such as multiple entry–exit options, the Academic Bank of Credits, and institutional restructuring. While these features align with global educational trends, their effectiveness depends significantly on implementation mechanisms and institutional preparedness (Nayak & Jaswinder, 2023).

Several studies have attempted to examine the implications of NEP 2020 at different levels. Choudhari (Choudhari, 2022) reported a high level of awareness and positive perception among stakeholders, emphasizing its potential for skill development and career planning, although the study was limited in scope and did not address implementation metrics. Similarly, Sawant and Sankpal (Sawant & Sankpal, 2021) highlighted the policy's focus on inclusivity and quality enhancement but identified challenges related to funding, infrastructure, and state-level disparities. Kurien and Chandramana (Kurien & Chandramana, 2020) stressed the importance of integrating NEP 2020 with digital initiatives and adopting data-driven decision-making approaches; however, they did not provide a structured framework for performance evaluation. Das et al. (Das et al., 2023) discussed the policy's role in improving research and global collaboration but noted the lack of empirical validation. Likewise, Sarta (Sarta, 2022) emphasized implementation challenges such as financial constraints, inclusivity, and curriculum standardization without proposing measurable assessment models.

A consolidated summary of these studies is presented in Table 1, which highlights that while the literature acknowledges the transformative potential of NEP 2020, it consistently lacks quantitative frameworks for evaluating implementation effectiveness.

TABLE I
SUMMARY OF LITERATURE ON NEP 2020 AND HIGHER EDUCATION

Author(s)	Key Focus	Major Contribution	Identified Gap
(Choudhari, 2022)	Stakeholder perception	High awareness and positive outlook	No implementation metrics
(Sawant & Sankpal, 2021)	Equity and quality	Focus on inclusivity and global alignment	Lacks evaluation framework
(Kurien & Chandramana, 2020)	Digital integration	Emphasis on data-driven systems	No measurable indicators
(Das et al., 2023)	Research and globalization	Highlights research and access improvement	Limited empirical validation
(Sarta, 2022)	Policy critique	Identifies financial and structural challenges	No quantitative assessment model

In contrast to the Indian context, international higher

education systems employ well-established frameworks for measuring policy implementation and system performance. The OECD proposes a comprehensive benchmarking model based on input–process–output–outcome indicators, enabling systematic evaluation of access, quality, research impact, and economic contribution (Venkata et al., 2025). In the United States, implementation effectiveness is assessed through outcome-based indicators such as graduation rates, employability, and learning outcomes, supported by accreditation mechanisms. European countries follow the Bologna Process, which standardizes higher education through credit transfer systems, student mobility, and quality assurance frameworks. Germany adopts a dual education model where implementation is evaluated based on industry participation and employment outcomes, while China utilizes quantitative evaluation approaches based on research output, rankings, and funding efficiency, often supported by multi-criteria decision-making models (See et al., 2022).

A comparative overview of these implementation frameworks is provided in Table 2, illustrating the differences between global practices and the current NEP 2020 approach.

TABLE II
COMPARATIVE IMPLEMENTATION MEASUREMENT FRAMEWORKS

System	Framework	Key Indicators	Reference
India (NEP 2020)	Policy-driven monitoring	GER, ABC credits, employability	(Venkata et al., 2025)
USA	Outcome-based assessment	Graduation rate, learning outcomes, research output	(OECD, 2019)
Europe (EHEA)	Bologna + ECTS + QA	Mobility, credit transfer, completion rate	(OECD, 2019)
Germany	Dual system	Apprenticeship, industry placement	(OECD, 2019)
China	State-driven evaluation	Research output, patents, rankings	(See et al., 2022, Yang et al., 2025)
OECD	Benchmarking model	Input–process–output–outcome indicators	(Venkata et al., 2025)

The comparison reveals that global systems rely heavily on quantifiable, outcome-oriented, and continuously monitored indicators, whereas NEP 2020 primarily emphasizes structural reforms and policy targets. This difference highlights the absence of a standardized and data-driven framework for evaluating implementation in the Indian context. Table 3 further summarizes this distinction by comparing the nature of indicators used globally and those currently associated with NEP 2020.

TABLE III
COMPARISON OF IMPLEMENTATION INDICATORS

Indicator Type	Global Systems	NEP 2020
Input	Funding, faculty ratio	Budget targets
Process	Teaching quality, QA systems	Structural reforms
Output	Graduation, publications	GER, institutional changes
Outcome	Employability, innovation	Limited measurement
Evaluation	Continuous benchmarking	Evolving monitoring

From the above discussion, it is evident that while NEP 2020 aligns conceptually with global higher education reforms, it lacks a robust mechanism for measuring implementation effectiveness. The literature consistently points to the need for quantitative indicators, standardized evaluation frameworks, and continuous monitoring systems, which are well-established in international contexts but still evolving in India.

In this context, the objective of the present study is to examine the implementation of NEP 2020 in higher and technical education by identifying measurable performance indicators and analysing key reform areas such as institutional restructuring, quality enhancement, and multidisciplinary education.

III. METHODOLOGY FOR INDICATOR DEVELOPMENT AND VALIDATION

The development of the proposed performance indicators was carried out through a structured yet exploratory methodology, combining policy analysis with academic interactions and preliminary expert-level validation. Basic workflow for indicators development is shown in Fig-1.

Fig.1. Methodology for Indicator Development and Validation

Stage 1: Policy Analysis and Thematic Identification

The methodology began with a comprehensive review of the National Education Policy (NEP) 2020 and related academic guidelines. Based on this analysis, key reform domains relevant to higher education were identified, namely:

1. Quality enhancement of institutions
2. Institutional restructuring and consolidation
3. Holistic and multidisciplinary education

These domains were selected due to their central role in shaping the structural and academic transformation envisioned under NEP 2020.

Stage 2: Academic Interaction and Feedback Collection

To ensure practical relevance, inputs and perspectives were gathered through continuous academic engagement. These included participation in faculty development programs, seminars, and academic discussions. Informal interactions and discussions were also carried out with **senior faculty members from reputed universities and technical institutions in Gujarat**.

The feedback collected during these engagements was primarily qualitative in nature and included observations on feasibility, institutional readiness, and practical challenges in implementing NEP-related reforms.

It is important to note that these interactions were conducted at an academic level, and the insights obtained are used here in a **generalized and indicative manner**, without referring to any specific institution or individual.

Stage 3: Indicator Formulation and Refinement

Based on policy analysis and academic inputs, an initial set of performance indicators was formulated. The indicators were designed considering:

1. Alignment with NEP 2020 objectives
2. Measurability using available institutional data
3. Applicability across diverse higher education institutions

The indicators were iteratively refined to improve clarity, relevance, and usability.

Stage 4: Preliminary Expert Review

The development and refinement of the proposed indicators was an iterative process supported by continuous academic engagement through Faculty Development Programmes (FDPs), seminars, workshops, and interactions with academicians from universities and technical institutions. Both formal and informal feedback collected during these activities contributed to improving the relevance and practicality of the proposed indicators. For documented preliminary validation, the refined indicator framework was subsequently evaluated by 18 experienced academicians, who assessed the indicators in terms of relevance, measurability, and feasibility. Their observations and recommendations were incorporated to enhance the overall clarity and applicability of the framework.

Stage 5: Suggestive Validation Approach

A limited validation exercise was conducted using a simple expert feedback approach, where indicators were assessed on:

1. Relevance
2. Measurability
3. Feasibility

Given the scope and nature of this study, the validation is considered **indicative rather than conclusive**. The proposed framework should therefore be interpreted as a **suggestive model**, which can serve as a foundation for further large-scale validation and empirical testing. Sample of one of the seminars on NEP is shown in Fig.2.Although many informal sessions, Oral Feedback and dissuasions are conducted by authors but all are not documented and presented here. For easy understanding of suggestive validation one of the formal feedback forms shared with senior faculty members of various technical institute is shown here which may serve as a basis for future work

Methodological Perspective

The methodology adopted in this study is intentionally positioned at an **exploratory and developmental level**, integrating:

1. Policy-driven understanding
2. Academic experience and feedback
3. Preliminary expert-level validation

This approach ensures that the proposed indicators are grounded in both policy intent and practical academic insight, while acknowledging that further refinement through broader empirical studies is necessary.

IV. Performance Metrics for NEP

4.1 Quality Universities and Colleges

Higher education is crucial for promoting social welfare and for advancing India as proposed in its Constitution. Sustainable livelihoods, economic development, and the transition to a knowledge economy is supported by it. Valued higher education should cultivate thoughtful, well-rounded, and creative personalities with deep expertise in specialized areas, strong character, ethical values, intellectual curiosity, scientific temper, creativity, and a spirit of service. It must facilitate personal and societal progress, economic independence, and meaningful public engagement. However, India's higher education faces significant challenges, including fragmentation, rigid discipline separation, limited access in disadvantaged areas, inadequate faculty autonomy, insufficient research emphasis, poor governance, and ineffective regulation (Ministry of Human Resource Development, 2020).

The above discussed issues addressed by creating large multidisciplinary institutions, enhancing curriculum and pedagogy, promoting faculty autonomy, establishing a National Research Foundation, ensuring merit-based

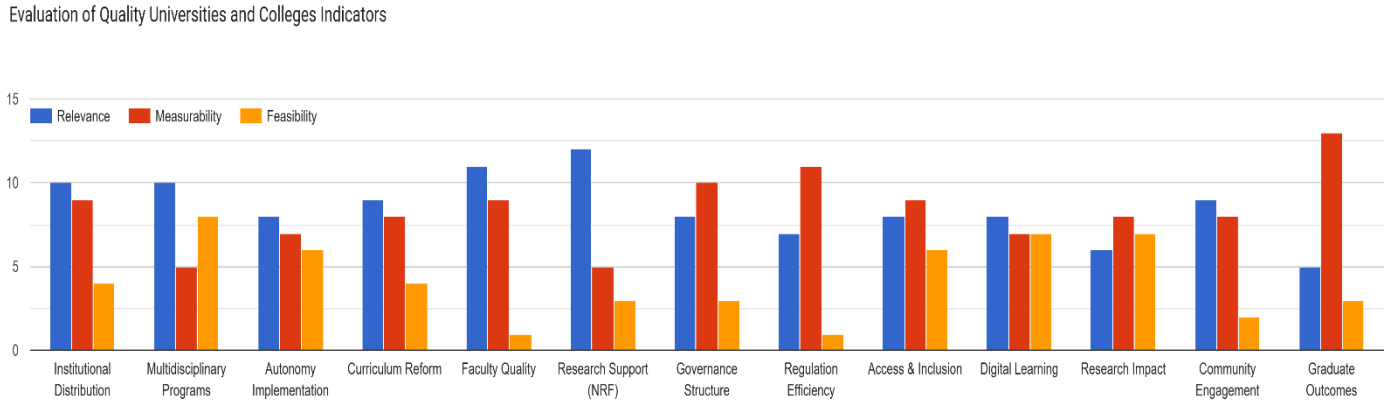
leadership, implementing effective governance, and increasing access and inclusion for all students, particularly through local languages and online learning (Ministry of Human Resource Development, 2020). Based on these recommendations, the possible key performance indicators and their importance are identified and tabulated in Table-IV.

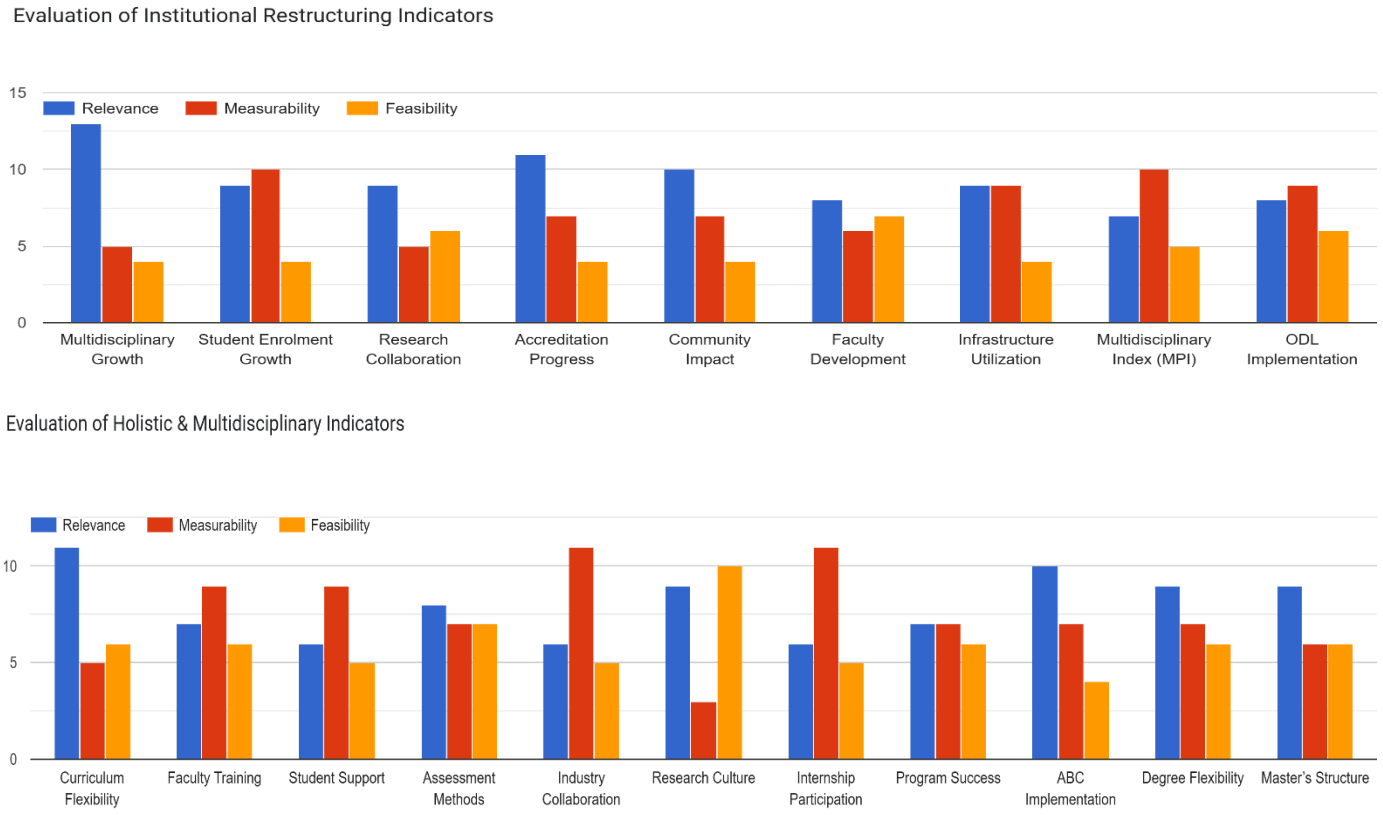
4.2 Institutional Restructuring and Consolidation

The policy aims to revamp India's higher education institutions (HEIs) with establishment of large, multidisciplinary universities and colleges. These changes will promote dynamic academic communities and encourage cross disciplinary research. Diverse programs will be offered by universities focusing on both teaching and research, while Autonomous Colleges will concentrate primarily on undergraduate teaching. Autonomy to colleges will be provided by a new accreditation system, encouraging them to evolve into independent degree-granting institutions or become part of a university. HEIs will also actively participate in community service, faculty development, and backing of schooling. By 2040, all HEIs should strive to be cross-disciplinary with increased student enrolments, with a target to achieve this by 2030. More HEIs will be set up in underserved regions to increase the student Enrolment Ratio collectively to 50% by 2035. Both public and private institutions will expand, with equitable and transparent funding for public HEIs. Accredited institutions grab the chance to offer Open Distance Learning (ODL) and digital online programs to enhance accessibility. Single-stream HEIs will transition into multidisciplinary institutions or become part of HEI clusters, gaining complete academic and administrative autonomy. The new regulatory framework will phase out affiliated colleges, with universities guiding them towards autonomy. The objective is to establish an integrated higher education system, merging different streams into a cohesive ecosystem. Complicated terminology will be simplified, and all institutions meeting specific criteria will be designated as "universities."(Ministry of Human Resource Development, 2020). Table-V provides list of possible performance indicators based on above recommendations

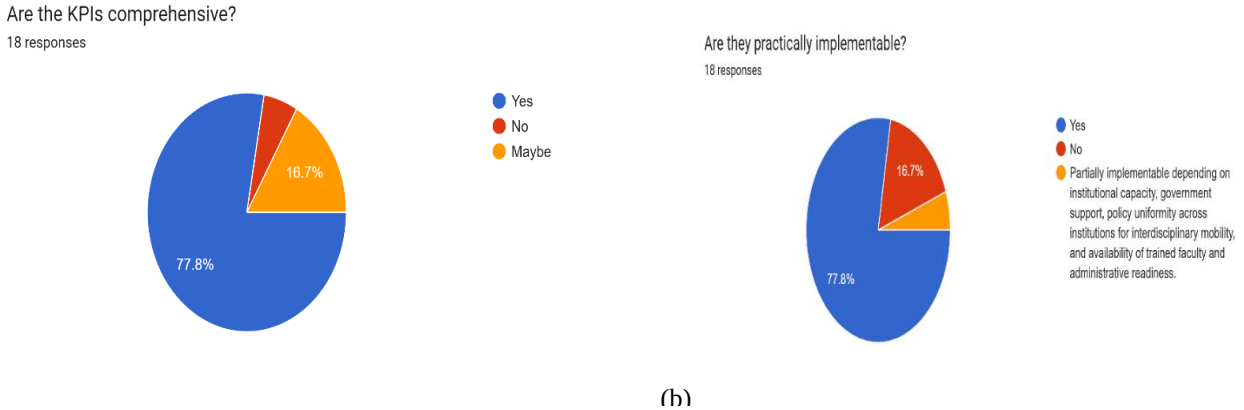
4.3 More Holistic and Multidisciplinary Education

India has a rich tradition of rounded and interdisciplinary learning, as demonstrated by ancient universities like Takshashila and Nalanda. Ancient texts such as Banabhatta's "Kadambari" emphasized a comprehensive education covering 64 arts, integrating scientific fields, vocational skills, professional subjects, and soft skills. This broad approach, similar to modern liberal arts, is crucial for 21st-century education. Integrating humanities and arts with science and technology in undergraduate programs has has demonstrated positive outcomes, including improved creativity, critical thinking, problem-solving skills, teamwork, communication abilities, and social consciousness. A holistic education strives to cultivate intellectual, aesthetic, social, physical, emotional, and moral capacities, thereby developing well-rounded graduates. Updating curricula to allow for flexible, multidisciplinary combinations, and promoting research and innovation through collaborative, interdisciplinary endeavours are vital. Establishing large, multidisciplinary universities and granting greater academic autonomy for faculty will further elevate the quality of education. New degree structures with various exit points and credit-based courses in social and community service, eco-friendly education, and moral ethics-based education will encourage lifelong learning. This educational framework will equip students with essential skills, social involvement, and job readiness, positioning India for success in the 21st century and beyond (Ministry of Human Resource Development, 2020). Possible performance indicators based on above recommendations listed in Table-VI





(a)



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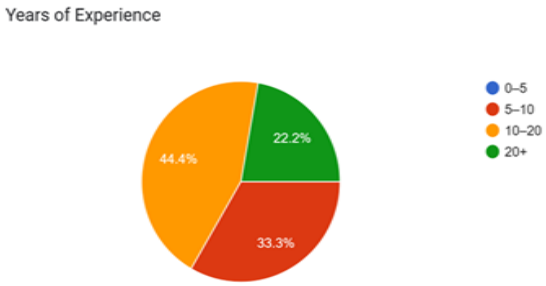

(c)

Fig. 2. Sample of One of the Formal Feedback forms

TABLE IV
PERFORMANCE METRICS FOR QUALITY UNIVERSITIES AND COLLEGES

Sr.No	Criteria	Rationale	Recommendation	Performance Indicator
1	University and College Distribution	Ensures equitable access to higher education across diverse regions, addressing regional disparities and promoting balanced educational development.	Regular assessment of the geographic distribution of institutions and identify underserved areas. Based on identification Provide funding and incentives for establishing institutions in underserved districts. Implementation of a tracking system for monitoring progress and effectiveness of new institutions in improving local educational access.	Number of large, multidisciplinary universities and colleges established, with at least one in or near every district.
2	Multidisciplinary Undergraduate Education	Autonomy fosters innovation, academic freedom, and effective governance, leading to improved institutional performance and responsiveness.	Encouraging institutions to develop and offer multidisciplinary programs. For encouraging to institutions offer grants or funding for program development and implementation. Evaluation: Regularly review and update program offerings based on industry trends and student feedback.	Percentage increase in the number of multidisciplinary undergraduate programs.
3	Autonomy Implementation	Measures progress in granting autonomy to colleges, fostering innovation and academic freedom.	Development and implementation of the policies that support increased autonomy. Institutional leaders should be trained to manage autonomy effectively. Continuous Monitoring and assessment of autonomy impact on institutional performance and student outcomes.	Percentage of universities and colleges that have achieved faculty and institutional autonomy.
4	Curriculum and Pedagogy Reforms	Ensures that educational practices remain relevant and effective, enhancing the quality of student experiences and aligning with industry needs.	Developing a clear framework for curriculum and pedagogy reforms. Offer support and resources to institutions for adoption and implementation of new practices. Regular assessment of the effectiveness of reforms and make adjustments as needed.	Adoption and implementation rate of revamped curriculum, pedagogy, assessment, and student support systems.
5	Faculty and Institutional Integrity	Ensures that leadership positions are filled based on merit, promoting fairness and enhancing institutional quality.	Establishment of transparent and merit-based appointment processes. Providing opportunities for faculty and leaders to advance their careers based on performance. Regularly assessing and reviewing the appointment and progression processes for effectiveness and fairness.	Percentage of faculty and institutional leaders appointed based on merit and progression criteria related to teaching, research, and service
6	National Research Foundation (NRF) Impact	Measures the effectiveness of the NRF in promoting high-quality research and advancing knowledge across disciplines.	Development of clear and competitive funding criteria for research projects. Provide support and guidance to researchers applying for NRF funding. Regularly reviewing and evaluation of funded research impact on advancing knowledge and addressing societal challenges.	Increase in the number of outstanding peer-reviewed research projects funded by the NRF.
7	Governance by Independent Boards	Ensures effective governance and administrative autonomy, leading to improved institutional management and decision-making.	Criteria development for selecting qualified independent board members. Providing governance training to board members for enhancing their effectiveness. Regular assessment of independent boards in governing HEIs for performance and effectiveness.	Percentage of Higher Education Institutions (HEIs) governed by highly qualified independent boards.
8	Regulation Efficiency	Streamlines regulatory processes and reduces administrative burdens, enhancing the overall efficiency of the higher education system.	Regularly reviewing and streamlining regulatory processes. Implementation of feedback mechanisms to gather input from stakeholders on regulatory efficiency. Provide training for institutions on navigating regulatory requirements effectively.	Reduction in bureaucratic hurdles and improved regulatory efficiency measured through stakeholder surveys.
9	Access, Equity, and Inclusion	Promotes inclusivity and ensures that all students have equal opportunities to access and succeed in higher education.	Development of outreach programs to attract students from disadvantaged backgrounds. Increase the availability of scholarships and financial aid for underprivileged students. Implementation of measures to improve physical and digital accessibility for learners with disabilities.	Percentage Increase in enrolment rates, scholarships for disadvantaged students, and accessibility measures for learners with disabilities.
10	Digital Transformation and Online Education	Expands access to education through technology and addresses the growing demand for flexible learning options.	Investment in digital infrastructure and resources to support online learning. Provide training for faculty and students on using digital learning platforms effectively. Tracking and assessing the impact of digital learning on student outcomes and engagement.	Adoption rate of digital learning platforms and online education programs.
11	Research Impact and Knowledge Transfer	Assesses the practical impact of research and its contribution to real-world advancements and policy-making.	Fostering partnerships between researchers, industry, and policymakers to enhance research impact. Developing metrics for evaluating the real-world impact of research outputs.	Number and quality of research outputs with a direct impact on industry, society, and policy.

			Providing support to translating research findings into practical applications and policy recommendations.	
12	Community Engagement and Social Responsibility	Encourages institutions to contribute positively to their communities and address societal challenges.	Support and fund community engagement and social responsibility projects. Developing partnerships with local organizations and communities for collaborative initiatives. Recognize and reward institutions and individuals for significant contributions to community development.	Extent of community engagement activities and social responsibility initiatives.
13	Graduate Outcomes and Employer Satisfaction	Ensures that graduates are well-prepared for the workforce and that their education meets industry needs.	Conduction of regular surveys from employers to assess satisfaction with graduate preparedness. Provide career services and support to help graduates secure employment. Regularly reviewing and updating curricula to align with industry requirements.	Tracking of graduate employment rates and employer satisfaction.

TABLE V
PERFORMANCE METRICS FOR INSTITUTIONAL RESTRUCTURING AND CONSOLIDATION

Sr.No	Criteria	Rationale	Recommendation	Performance Indicator
1	Multidisciplinary Transformation	The KPI reflects progress towards becoming a vibrant multidisciplinary institution.	Actively seek partnerships with industries and research organizations to identify emerging disciplines and incorporate them into the academic offerings.	Number of disciplines incorporated into the university's academic offerings(Since 2015)
2	Student Enrolment Growth	Demonstrates the university's ability to attract a larger student population, contributing to vibrant communities.	Implement targeted marketing strategies, scholarship programs, and student support services to enhance the attractiveness of the university, thereby fostering enrolment growth.	Annual percentage increase in student enrolment.
3	Cross-disciplinary Research Initiatives	Measures the commitment to fostering active research communities across disciplines.	Establish interdisciplinary research centres, promote collaborative research funding, and create incentives for faculty to engage in cross-disciplinary projects.	Number of cross-disciplinary research projects initiated.
4	Accreditation Progress	Indicates successful implementation of the stage-wise mechanism for autonomy.	Provide dedicated resources and mentoring programs to support colleges in meeting accreditation benchmarks, fostering a culture of continuous improvement.	Percentage of colleges achieving graded autonomy through the accreditation system.
5	Community Engagement Impact	Reflects the university's contribution to various fields of practice and community development.	Strengthen community partnerships by aligning engagement initiatives with local needs, emphasizing practical applications of research, and regularly evaluating the impact of community programs.	Assessment of the impact of community engagement initiatives.
6	Faculty Development Programs	Ensures a well-equipped faculty for delivering high-quality multidisciplinary education.	Design comprehensive faculty development plans, focusing on pedagogical innovations, cross-disciplinary training, and research capacity building, with recognition for active participation.	Participation rates in faculty development programs.
7	Infrastructure Optimization Efficiency	KPI implies optimal use of resources and supports multidisciplinary activities. The Rate of Infrastructure Utilization provides a percentage of how efficiently the university's infrastructure is being utilized. A high	Conduct regular assessments of infrastructure needs, invest in flexible spaces that support multidisciplinary activities, and promote collaborative resource-sharing mechanisms.	Utilization Rate Calculation/Infrastructure Utilization Rate (IUR)) $\frac{\textbf{Total Actual Usage Time}}{\textbf{Total Available Time}} x100$

		value of IUR indicates effective use, while a low value of IUR suggests potential underutilization or scheduling inefficiencies.		
8	Progress towards Multidisciplinary Culture	The KPI reflects a quantitative measure of the advancement of a single-stream HEI towards its goal of becoming a vibrant multidisciplinary institution. A higher MPI indicates a more significant progression.	Facilitate a smooth transition for single-stream HEIs by providing clear roadmaps, faculty training in diverse disciplines, and incentives for departments to integrate across different fields.	Multidisciplinary Progress Index (MPI) $\frac{\textbf{Number of Disciplines Added}}{\textbf{Total Number of Disciplines Targeted}} x100$
9	Open Distance Learning (ODL) Implementation	Measures efforts to enhance offerings, improve access, and support lifelong learning.	Develop a comprehensive strategy for ODL, ensuring that programs are aligned with industry needs, maintaining high-quality standards, and integrating online courses seamlessly into the broader curriculum.	Number of ODL programs introduced.

TABLE VI
MORE HOLISTIC AND MULTIDISCIPLINARY EDUCATION

Sr.No	Criteria	Rationale	Recommendation	Performance Indicator
1	Curriculum Development	A flexible curriculum will allow for creative combinations of disciplines, fostering a multidisciplinary learning environment.	Develop and implement a flexible and innovative curriculum that integrates arts, humanities, sciences, and vocational subjects.	Percentage of courses that incorporate elements from arts, humanities, sciences, and vocational subjects. /Participation rates in extracurricular activities and interdisciplinary projects.
2	Faculty Development Program	Skilled faculty members are essential for effective implementation of a holistic and multidisciplinary approach.	Provide training opportunities for faculty members to enhance their expertise in multidisciplinary teaching methods.	Number of faculty members who have undergone multidisciplinary teaching training.
3	Student Support Services	Personalized support will help students navigate the flexible curriculum and make informed choices.	Establish support services to guide students in designing personalized multidisciplinary learning paths and career planning.	Percentage of students utilizing personalized support services for designing multidisciplinary learning paths.
4	Assessment and Evaluation	Assessment in line with the goals of all rounded education ensures the effectiveness of the learning outcomes.	Develop assessment methods that measure not only subject-specific knowledge but also holistic skills, including critical thinking and problem-solving.	Number and percentage of diverse assessment methods used (e.g., project-based assessments, case studies, presentations, and practical exams).
5	Industry-Academia Collaboration	Industry partnerships will connect the academic knowledge and practical implementation of it , preparing students for the workforce.	Strengthen collaboration between educational institutions and industries to provide real-world exposure and enhance employability.	Number of collaborative projects between educational institutions and industries. / Percentage of students engaged in industry-sponsored internships or practical projects.
6	Research and Innovation Culture	A robust research culture contributes to advancements in knowledge and prepares students for challenges in various fields.	Promote a culture of research and innovation through the establishment of research centres, incubation hubs, and interdisciplinary projects.	Number of research publications and projects resulting from interdisciplinary collaboration. /Success rates in grant applications for research and innovation initiatives.
7	Internship and Practical Experience	Practical experience enhances learning, improves employability, and fosters a deeper understanding of real-world applications.	Facilitate internships with local industries, businesses, and research institutions to provide practical exposure to students.	Percentage of students participating in internships with local industries, businesses, or research institutions.
8	Overall Program Success	High graduation rates and retention rates indicate the program's ability to engage and retain students. A holistic and multidisciplinary approach	Implement mentorship programs, counselling services, and personalized academic advising to support students throughout their academic journey.	Graduation rates and retention rates of students within the holistic and multidisciplinary program.

		should foster student interest and commitment.		
9	Adaptability of Academic Bank of Credit (ABC)	A higher number of successful credit transfers demonstrates the practical utility of the ABC system in facilitating seamless transitions for students between institutions.	Regularly review and update the list of institutions participating in the ABC system. Ensure clear communication about credit transfer processes to students and institutions.	Number of instances where students successfully transfer credits between institutions using ABC.
10	Structural Changes in Degree Programs	Improved communication ensures that students have a clear understanding of the value and outcomes associated with each program, leading to more informed choices.	Implement a comprehensive communication strategy to clearly articulate the benefits, career prospects, and unique features of each exit option (certificate, diploma, 3 and 4-year degree programs).	No. of programs adopted structural changes (certificate, diploma, 3 and 4-year degree programs, multiple entry exit).
11	Master's Program Designs	The flexibility in Master's program designs and Ph.D. admission criteria aligns with the principles of holistic education, accommodating varied learning trajectories and promoting inclusivity. It encourages specialization, research engagement, and interdisciplinary approaches, fostering a dynamic academic environment.	Different designs of Master's programmes offering potential: (a) Two-year programme with the final year keen entirely to research for those who have graduated the three-year Bachelor's; (b) Students who graduated a 4-year Bachelor's with Research, there could be a One-year Master's programme; (c) Combine Five-year Bachelor's/Master's programme.	No. of two-year programmes with the final year keen entirely to research for those who who have graduated the three-year Bachelor's; No. of one-year Master's programmes for students graduated a four-year Bachelor's programme with Research No. of combined five-year Bachelor's/Master's programme.

V. Challenges and Opportunities

This study highlights the performance indicators for India's National Education Policy (NEP) 2020 which offers a structured framework for assessing the quality and progress of higher education institutions (HEIs), especially as the goal of said policy is to make them multidisciplinary institutes. These indicators are suggested to assess the development of universities and colleges in nurturing dynamic academic communities, cross-disciplinary research, and holistic education rooted in India's ancient traditions, exemplified by institutions like Takshashila and Nalanda. Flexible curricula, faculty development, industry-academia collaboration, and student support services emphasized by this KPIs, all designed to equip learners with the essential skills for the 21st century (Ministry of Human Resource Development, 2020).

Although the indicators provide clear guidance for progress is offered by these indicators, their practical implementation poses challenges. For instance, the transition to a multidisciplinary approach necessitates significant curriculum redesign, faculty retraining, and infrastructure optimization. Moreover, consistent quality assurance in research, innovation, and student support across diverse institutions can be resource-intensive and challenging to measure. Successful implementation of these suggested initiatives also depends on institutional commitment and equitable resource distribution. Therefore, These indicators may serve as a valuable tool for measuring the transformation proposed by NEP 2020, still to operationalize them requires careful planning, adequate support, and continuous expert evaluation to ensure they effectively contribute to India's higher education reform goals. For a more detailed breakdown of the advantages and challenges associated with each performance indicator, please refer to Tables 4-6.

Table VII
Pros and Cons of the Proposed Performance Indicators discussed In Table-4

Sr.No	Criteria	Pros	Cons
1	University and College Distribution	Ensures equitable access to higher education, particularly in underserved regions, thus addressing regional disparities.	The simplistic nature of this indicator may fail to capture the complexities of regional socio-economic factors that affect educational access. Track the progress in these areas may be resource-intensive and logistically challenging. .
2	Multidisciplinary Undergraduate Education	Promotes innovation and a holistic approach to education, aligning with global trends in interdisciplinary learning.	Development of such multidisciplinary programs requires large curriculum reforms and faculty training, which may come across resistance. Monitoring the effectiveness of these programs can poses challenges due to varying institutional capacities.
3	Autonomy Implementation	Fostering autonomy can enhance institutional governance, spur innovation, and improve responsiveness to local needs.	Autonomy achievement may be difficult in institutions which have strong tradition of centralized control. Impact measurement of

			autonomy on outcomes can be subjective and dependent on the quality of the institution's leadership.
4	Curriculum and Pedagogy Reforms	Aligns educational practices with industry demands and enriches student experiences, making education more pertinent.	Implementing these reforms uniformly across diverse institutions may prove challenging, and regular assessment necessitates robust evaluation frameworks, which may not be universally available.
5	Faculty and Institutional Integrity	Promotes fairness and meritocracy, which are vital for institutional quality and reputation.	Transparent processes and professional development initiatives may be challenging to enforce consistently across all institutions, and progress can be slow due to entrenched practices.
6	National Research Foundation (NRF) Impact	Encourages high-quality research and knowledge advancement across various disciplines.	The success of this indicator hinges on the availability of funding and the research ecosystem's ability to absorb and effectively utilize resources.
7	Governance by Independent Boards	Enhances institutional management and decision-making by ensuring that qualified individuals govern higher education institutions.	Selection of board members and their training , as well as evaluating their effectiveness, are complex tasks that require careful oversight and may encounter political and administrative hurdles.
8	Regulation Efficiency	Promotes inclusivity and ensures equal opportunities for all students, contributing to social equity.	Measuring regulatory efficiency is challenging, as it involves subjective assessments from various stakeholders. Streamlining processes without compromising quality assurance can be complex.
9	Access, Equity, and Inclusion	Fosters inclusivity and guarantees equal opportunities for all students, contributing to social equity.	Implementing outreach programs, scholarships, and accessibility measures on a large scale demands substantial financial and administrative resources, which may not always be available.
10	Digital Transformation and Online Education	Broadens access to education and addresses the increasing demand for flexible learning options.	One of the significant challenges in India is the digital divide, with disproportions in access to technology and digital literacy potentially hindering the effectiveness of this indicator.
11	Research Impact and Knowledge Transfer	Ensures that research leads to real-world advancements and informs policy-making, enhancing the relevance of academic work.	Assessing the practical impact of research is inherently challenging, as it involves long-term outcomes that may not be immediately visible or quantifiable.
12	Community Engagement and Social Responsibility	Motivates institutions to contribute to societal development and tackle local challenges, fostering a sense of social responsibility.	Measurement of the scope and impact of community engagement activities can be difficult, and such initiatives may be deprioritized in favour of academic and research objectives.
13	Graduate Outcomes and Employer Satisfaction	Guarantees that graduates are well-prepared for the workforce, enhancing employability and meeting industry demands.	Measurement of graduate outcomes and employer satisfaction demands unending engagement with alumni and employers, which can be resource-intensive and may not always provide consistent data.

TABLE VIII
PROS AND CONS OF THE PROPOSED PERFORMANCE INDICATORS DISCUSSED IN TABLE-5

Sr.No	Criteria	Pros	Cons
1	Multidisciplinary Transformation	Encourages the development of diverse academic offerings that align with global educational trends and industry demands, fostering innovation and a comprehensive education.	Incorporating new disciplines into academic offerings necessitates significant investment in faculty training, curriculum development, and infrastructure. Only number of disciplines alone may not fully capture the depth or quality of multidisciplinary integration.
2	Student Enrolment Growth	Increased student enrolment reflects the institution's attractiveness and contributes to vibrant academic communities.	Growth in student enrolment is a positive indicator, still it can strain resources if not matched with corresponding increases in infrastructure and faculty. Moreover, only enrolment growth may not equate to improved educational outcomes or quality.
3	Cross-disciplinary Research Initiatives	Promotes collaboration across disciplines, leading to innovative research outcomes that can address complex societal challenges.	Interdisciplinary research centres and encouraging cross-disciplinary projects can be resource-intensive and it may come across resistance from faculty accustomed to traditional disciplinary boundaries. Measuring

			the impact of these initiatives may also prove challenging.
4	Accreditation Progress	Provides a structured path for colleges to achieve autonomy, fostering institutional growth and independence.	The process of accreditation may be lengthy and bureaucratic, which may be discouraging for smaller institutions. Additionally, contrasting quality of autonomy achieved, may affect the consistency of outcomes across institutions.
5	Community Engagement Impact	Strengthens the relationship between HEIs and their local communities, ensuring that academic research and activities yield practical, positive impacts.	Impact measurement of community engagement is integrally subjective and may not fully capture an institution's contributions. Moreover, aligning initiatives with local needs necessitates ongoing dialogue and flexibility, which can be challenging to sustain.
6	Faculty Development Programs	Ensures that faculty are well-prepared to deliver high-quality multidisciplinary education, enhancing the overall academic strength of the institution.	Continues investment is required for Faculty development programs and may be difficult to implement consistently across all institutions. In addition, participation rates only may not accurately reflect the effectiveness or impact of these programs on teaching quality.
7	Infrastructure Optimization Efficiency	Ensures that institutional resources are utilized effectively, supporting multidisciplinary activities and maximizing the value of investments in infrastructure.	Qualitative aspects of infrastructure use may not be considered in the Infrastructure Utilization Rate (IUR), such as the suitability of spaces for specific academic activities. Additionally, optimizing infrastructure necessitates careful planning and coordination, which can be complex.
8	Progress towards Multidisciplinary Culture	Provides a quantitative measure of an institution's progress in transitioning to a multidisciplinary model, promoting a holistic approach to education.	The Multidisciplinary Progress Index (MPI) may oversimplify the intricate process of institutional transformation, focusing more on quantitative metrics rather than the qualitative aspects of cultural change.
9	Open Distance Learning (ODL) Implementation	Expands access to education, particularly for non-traditional learners, and supports lifelong learning initiatives.	ODL programs implementation which uphold high-quality standards and are seamlessly integrated into the broader curriculum may be difficult task. Additionally, the number of ODL programs introduced alone may not adequately reflect their effectiveness or impact on student outcomes.

TABLE IX
PROS AND CONS OF THE PROPOSED PERFORMANCE INDICATORS DISCUSSED IN TABLE-6

Sr.No	Criteria	Pros	Cons
1	Curriculum Development	A flexible and multidisciplinary curriculum nurtures creativity and critical thinking, equipping students with a diverse skill set that is valuable in a rapidly evolving world. The Integrated curriculum with arts, humanities, sciences, and vocational subjects prepares students to address complex, real-world challenges.	Implementation of such curriculum requires significant modifications to existing academic structures and faculty training. Accomplishment of this approach largely depends on the institution's ability to balance depth in individual disciplines with breadth across multiple fields. The challenge is to ensure that students receive a meaningful education that is not superficial across disciplines.
2	Faculty Development Program	Faculties with the skills to impart in a multidisciplinary environment is essential for the success of this educational model. Training programs can enhance teaching quality and encourage innovative pedagogical approaches.	Institutions with limited resources my face scalability issues for such faculty development programs. Moreover, the effectiveness of such programs varies significantly based on how openly the existing faculties embrace new teaching methods.
3	Student Support Services	Support services for assisting the students to navigate in the challenges of a multidisciplinary curriculum, ensures that they can make informed choices and align their educational paths with career aspirations. This support can improve student satisfaction and retention rates.	Establishment and maintenance of effective student support services demands continuing investment and institutional commitment. Furthermore, the quality of these services can fluctuate, potentially resulting in unequal student experiences.
4	Assessment and Evaluation	Evolving assessment methods which extend beyond subject-specific knowledge to assess holistic skills such as critical thinking and problem-solving is critical for a inclusive education. Such assessments can offer a more accurate representation of student learning and outcomes.	Creation and implementation of diverse assessment approaches may be resource-intensive and come across resistance from faculty accustomed to traditional testing methods. Additionally, aligning these assessments with industry requirements and

			academic standards offers supplementary challenges.
5	Industry-Academia Collaboration	Collaborations strengthening between educational institutions and industries ensures that students acquire industry ready skills and are better prepared for the workforce. These partnerships can enhance employability and guarantee that academic programs remain pertinent to industry needs.	Meaningful partnerships establishment with industries can be difficult, especially for smaller institutions or those located at less industrialized areas. In addition to this the importance on employability may sometimes overshadow the broader educational objectives of holistic learning.
6	Research and Innovation Culture	Research and innovation culture promotion is essential for evolving knowledge and preparing students for future challenges. cross disciplinary research centres and incubation hubs can inspire innovation and promote collaboration across disciplines.	Establishment of robust research culture necessitates substantial investment in infrastructure, faculty, and resources. impact assessment of interdisciplinary research can be intricate, and success rates in grant applications alone may not completely reflect the effectiveness of these initiatives.
7	Internship and Practical Experience	Students' internships offer practical experience which enhances their learning and boosts employability. This hands-on approach enables students to apply theoretical knowledge to real-world situations, enriching their understanding.	Internships arrangement for a large number of students can be logistically challenging, particularly in areas with limited industry presence. Assurance of high-quality internships to all students presents another potential difficulty.
8	Overall Program Success	Program's ability to engage and retain students can be reflected by High graduation and retention rates, which is vital for the success of holistic and multidisciplinary education.	Graduation and retention rates are significant indicators of overall program success still they may not fully measure the quality of education or student learning outcomes. Furthermore, these rates can be influenced by factors beyond the institution's control, such as economic conditions or personal circumstances.
9	Adaptability of Academic Bank of Credit (ABC)	Seamless transitions between institutions can be ensured by implementation of The ABC system, which supports lifelong learning and allowing students to customize their educational journeys. Successful credit transfers illustrate the practicality and utility of the ABC system.	Implementation and management of the ABC system requires clear communication and coordination between institutions. Successful credit transfers rely on the uniformity of academic standards across institutions, which can differ significantly.
10	Structural Changes in Degree Programs	Benefits and outcomes of various program structures need to be clearly communicated to students which aids them in making informed choices, resulting in better alignment between education and career aspirations. Structural changes in degree programs can also offer increased flexibility and address diverse learning needs.	Transmitting the values of new program structures can be challenging, especially when engaging with diverse student populations. Furthermore, restructuring degree programs may necessitate substantial adjustments in curriculum design and faculty responsibilities.
11	Master's Program Designs	Diverse learning trajectories and fosters inclusivity can be accommodated by Flexible Master's program design which enables students to specialize or participate in interdisciplinary studies. This approach cultivates a dynamic academic environment and aligns with the principles of holistic education.	Development and implementation of multiple Master's program designs can be resource-intensive and may require considerable administrative and academic coordination.

VI. Quantitative Framework for NEP Implementation Assessment

Building upon the indicator development process described in the preceding methodology, a quantitative framework is proposed to represent the implementation status of NEP 2020 in a more structured and comparable form. The earlier stages—comprising policy analysis, thematic identification, and academic interactions—provided a conceptual basis for identifying relevant performance indicators. The insights gathered through these exploratory steps, along with preliminary academic feedback, guided the formulation of a composite index.

In this context, a NEP Implementation Index (NEPII) is introduced as a suggestive quantitative representation, intended to aggregate multiple indicators into a single normalized score. The purpose of this index is not to provide a definitive measure, but rather to offer an indicative framework that can support comparative understanding and further analytical development.

The NEPII is defined as:

$$NEPII = \sum_{i=1}^{N} Wi\, KPI_i \qquad (1)$$

where Wi represents the relative weight assigned to the i^{th} indicator, and KPIi denotes the normalized score of that indicator on a scale of 0 to 1.

The grouping of indicators and assignment of weights are derived from the key thematic areas identified during the methodological stages. In particular, the emphasis placed on institutional quality, structural reforms, and multidisciplinary education reflects both the core priorities of NEP 2020 and the patterns observed during academic discussions and preliminary feedback. Accordingly, the indicators are organized into three broad categories.

TABLE X
CATEGORY-WISE STRUCTURE OF NEPII

Category	Description	Weight
Quality Universities and Colleges	Institutional quality, governance, research, and access	0.4
Institutional Restructuring and Consolidation	Structural transformation and multidisciplinary integration	0.3
Holistic and Multidisciplinary Education	Curriculum flexibility, skill development, student-centric learning	0.3

The category weights used in the proposed NEPII framework were assigned based on the relative emphasis of the National Education Policy (NEP) 2020, supporting UGC guidelines, and insights obtained through policy analysis, formal expert feedback, and informal academic discussions conducted during the study. A weight of 0.40 was assigned to the "Quality Universities and Colleges" category because institutional quality, governance, research, and academic excellence form the foundational basis for the successful implementation of other NEP reforms. The remaining weight was equally distributed between "Institutional Restructuring and Consolidation" (0.30) and "Holistic and Multidisciplinary Education" (0.30), as these represent complementary structural and academic dimensions that collectively support the objectives of NEP 2020. The assigned weights should be considered suggestive rather than definitive, as they are based on preliminary academic inputs and exploratory discussions. Future studies may establish more robust and generalizable weightings through broader consultation with experts from diverse higher education institutions across India using structured consensus-building techniques such as the Delphi method, Analytic Hierarchy Process (AHP), or other multi-criteria decision-making approaches.

Within each category, individual KPIs are normalized to ensure comparability across institutions with varying scales and contexts. Standard approaches such as min–max normalization or benchmark-based scoring may be adopted depending on data availability.

To demonstrate the applicability of the proposed framework, a hypothetical example is considered. Suppose an institution attains the following normalized scores:

TABLE XI
SAMPLE CATEGORY SCORES

Category	Score
Quality HEIs	0.70
Restructuring	0.60
Multidisciplinary	0.80

The NEPII is computed as Using Equation (1):

$$\boldsymbol{NEPII} = (\mathbf{0.4}\,\boldsymbol{x}\,\mathbf{0.70}) + (\mathbf{0.3}\,\boldsymbol{x}\,\mathbf{0.6}) + (\mathbf{0.3}\,\boldsymbol{x}\,\mathbf{0.80}) = \mathbf{0.70} \quad (2)$$

This value provides an indicative assessment suggesting that the institution is progressing toward a relatively advanced level of implementation. The example is illustrative and does not correspond to any specific institution.

Interpretation of NEPII Scores

To facilitate interpretation, a simple classification is proposed.

TABLE XII
INTERPRETATION OF NEPII SCORES

NEPII Range	Implementation Level
0 – 0.3	Initial Stage
0.3 – 0.6	Developing Stage
0.6 – 0.8	Advanced Stage
0.8 – 1.0	Near Comprehensive Implementation

The classification is indicative and may be further refined through empirical validation.

The proposed classification can be viewed as an indicative implementation maturity model, where institutions gradually move from initial adoption to more comprehensive and integrated implementation of NEP 2020 reforms. This perspective can help institutions understand their current stage, recognize gaps, and plan improvements in a more structured manner. However, it is important to note that the NEP Implementation Index (NEPII) and its classification are developed at a suggestive level, based primarily on policy understanding and limited academic interactions. The intention is to offer an initial framework that supports a shift toward more data-oriented evaluation, rather than to present a final or fully validated model. For the framework to be applied more widely and with greater confidence, it would require further refinement through broader studies, inclusion of larger datasets, and more extensive inputs from academic experts and researchers across different institutional settings.

VII.DISCUSSION

The set of performance indicators proposed in this study attempts to bring some structure to the way NEP 2020 implementation in higher education institutions (HEIs) can be examined. By focusing on areas such as multidisciplinary transformation, institutional restructuring, faculty development, and student engagement, the framework provides a starting point for thinking about how progress under the policy may be assessed in a more systematic manner. At the same time, translating these indicators into practice is not straightforward and raises several important considerations.

One of the key challenges lies in the diversity of the Indian higher education system itself. Institutions differ significantly in terms of resources, academic maturity, geographical context, and administrative capacity. Because of this variation, a common set of indicators may not fully reflect the realities of all institutions. While the framework is designed to be broadly applicable, its meaningful use will likely require adaptation to local contexts rather than direct uniform application.

Another concern relates to the nature of measurement. Quantitative indicators are helpful in capturing visible changes such as enrolment growth or the introduction of interdisciplinary programs. However, deeper aspects of educational transformation—such as the quality of research, the effectiveness of faculty development efforts, or the extent of genuine interdisciplinary collaboration—are more difficult to capture through numbers alone. These aspects often require qualitative understanding, suggesting that any evaluation framework should ideally combine both measurable indicators and contextual interpretation.

Practical implementation also depends on institutional readiness. The use of such indicators requires adequate infrastructure, trained faculty, and administrative support, which may not be uniformly available across institutions. In many cases, especially in resource-constrained settings, these requirements could limit the effective adoption of such frameworks. Additionally, sustained institutional engagement and willingness to adopt evaluation practices remain important but uncertain factors.

Another important limitation is the relatively limited body of empirical research available on NEP 2020 implementation. As a recent policy, much of the discussion remains at a conceptual level, with only a few attempts to explore its actual progress in measurable terms. In this context, the present work should be seen as an early effort to move the discussion forward from broad policy interpretation toward more structured assessment.

The proposed indicators and the NEP Implementation Index (NEPII) are therefore best understood as part of an evolving approach. They are not intended to offer a final or definitive solution, but rather to initiate a conversation around how implementation can be examined in a more systematic and evidence-based manner. Further refinement, supported by wider academic engagement, larger datasets, and diverse institutional experiences, will be essential to strengthen and validate the framework.

CONCLUSIONS

This study has focused on three central dimensions of NEP 2020—quality enhancement of universities and colleges, institutional restructuring, and holistic and multidisciplinary education—and has proposed a set of performance indicators to examine their implementation in higher education institutions. In addition, a suggestive quantitative framework in the form of the NEP Implementation Index (NEPII) has been introduced to provide a simplified way of representing implementation progress.

Rather than presenting a finalized evaluation model, this work should be viewed as an initial and guiding effort toward developing structured approaches for assessing NEP 2020 implementation. The indicators and index proposed here are intended to serve as a reference point for future research, helping shift the discussion from purely descriptive analysis toward more measurable and comparative evaluation.

At the same time, it is important to acknowledge that the framework is developed at an exploratory level, based on policy interpretation and limited academic inputs. Its broader application will require further validation through larger studies, inclusion of diverse institutional data, and deeper engagement with academic experts and researchers.

In this sense, the contribution of this study lies not only in the indicators it proposes, but also in establishing a foundation for future work in this area. It can be considered as a milestone that opens up a structured direction for subsequent research, particularly in developing robust implementation models, refining performance metrics, and integrating both quantitative and qualitative evaluation approaches.

This paper constitutes Part I of a broader research study on benchmarking the implementation of the National Education Policy (NEP) 2020 in higher education. Part I focuses on identifying and developing performance indicators for the first three major reform areas of higher education, namely Quality Universities and Colleges, Institutional Restructuring and Consolidation, and Holistic and Multidisciplinary Education, together with a preliminary implementation framework. The subsequent parts of this study will extend the analysis to the remaining higher education reform domains outlined in NEP 2020, including optimal learning environments, faculty development, equity and inclusion, teacher education, vocational education, research and innovation, and governance. For each domain, appropriate performance indicators will be identified and systematically developed to establish a comprehensive benchmarking framework covering the entire higher education component of NEP 2020. Upon completion of this comprehensive framework, future work will focus on its empirical validation using institutional data, statistical analyses, expert consensus, and comparative benchmarking across higher education institutions.

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