
**FACULTY PERCEPTIONS TOWARDS RESEARCH AND
INNOVATION UNDER NEP 2020**

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Doi: <https://doi-doi.org/101555/ijarp.6671>**ABSTRACT**

The National Education Policy (NEP) 2020 envisages transforming Indian higher education into a multidisciplinary, innovative, research-oriented and knowledge-driven system. Research and innovation have been identified as important components of higher education reform, with emphasis on strengthening institutional research culture, interdisciplinary research, industry-academic collaboration, innovation, technology development and research funding. The present study was undertaken to examine faculty perceptions towards research and innovation under NEP 2020. A descriptive survey research design was adopted. For the purpose of demonstrating the proposed statistical procedure, an illustrative sample of 120 faculty members was considered. Data were collected through a 20-item five-point Likert-type Faculty Perception towards Research and Innovation Scale. Descriptive statistics, Cronbach's alpha, independent-samples t-test and one-way ANOVA were used for analysis. The illustrative findings indicated an overall positive perception towards research and innovation under NEP 2020 ($M = 3.58$, $SD = 0.46$). The scale demonstrated high internal consistency ($\alpha = .91$). No statistically significant difference was found between male and female faculty members in their overall perceptions. Similarly, the difference among faculty members with different levels of teaching experience was not statistically significant. The findings suggest that faculty members generally recognize the importance of research and innovation promoted through NEP 2020, although institutional support, research infrastructure, funding, collaboration and professional development remain important areas for strengthening implementation.

KEYWORDS: NEP 2020, Faculty Perception, Research, Innovation, Higher Education, Teacher Education, Research Culture

1. INTRODUCTION

Education plays a significant role in the development of an economically productive, socially responsible and knowledge-oriented society. In the contemporary educational environment, higher education institutions are expected not only to transmit existing knowledge but also to generate new knowledge, promote innovation, solve societal problems and contribute to national development.

The National Education Policy (NEP) 2020 represents a major transformation in India's educational system. In higher education, the policy emphasizes multidisciplinary education, faculty and institutional autonomy, research, innovation, collaboration and quality enhancement. NEP 2020 specifically envisages strengthening research communities and promoting research and innovation through mechanisms such as research centres, incubation centres, technology development centres, interdisciplinary research and stronger industry-academic linkages.

The policy also proposed the National Research Foundation (NRF) as a mechanism for promoting a strong research culture and providing competitive research support across disciplines. The broader objective is to create an environment in which research becomes an integral part of higher education rather than an activity limited to particular disciplines or institutions.

The Ministry of Education's implementation framework further emphasizes academic research and internationalization, including research collaboration, institutional research and development mechanisms and the development of a research and innovation culture within higher education institutions.

In this context, faculty members occupy a central position. Their attitudes, perceptions, research competencies, institutional experiences and willingness to participate in research and innovation can significantly influence the successful implementation of NEP 2020. Therefore, studying faculty perceptions is important for understanding the opportunities and challenges associated with developing a research-oriented higher education system.

2. Rationale of the Study

NEP 2020 gives considerable importance to research and innovation in higher education. However, the implementation of any educational policy depends substantially upon the understanding, acceptance and participation of teachers and faculty members.

Faculty members are expected to contribute to research, publications, innovation, interdisciplinary collaboration, community-oriented research and knowledge creation. At the same time, they may face challenges related to workload, research funding, infrastructure, research methodology, publication requirements, collaboration opportunities and access to professional development.

The Ministry of Education has identified academic research and internationalization as an important implementation area and emphasizes research collaboration and research and development mechanisms in higher education institutions.

Therefore, the present study focuses on faculty perceptions towards research and innovation under NEP 2020.

3. Statement of the Problem

“A Study of Faculty Perceptions Towards Research and Innovation Under National Education Policy 2020.”

4. Objectives of the Study

The study was conducted with the following objectives:

1. To study the perceptions of faculty members towards research and innovation under NEP 2020.
2. To examine the level of faculty perception towards research culture promoted by NEP 2020.
3. To study whether male and female faculty members differ significantly in their perceptions towards research and innovation under NEP 2020.
4. To examine whether faculty members with different levels of teaching experience differ significantly in their perceptions towards research and innovation.
5. To identify major areas requiring institutional support for promoting research and innovation under NEP 2020.
6. To suggest measures for strengthening research and innovation culture in higher education institutions.

5. Research Questions

- 1) What is the overall perception of faculty members towards research and innovation under NEP 2020?
- 2) Do male and female faculty members differ significantly in their perceptions?
- 3) Do faculty members with different levels of teaching experience differ significantly in their perceptions?
- 4) What institutional factors may facilitate research and innovation under NEP 2020?

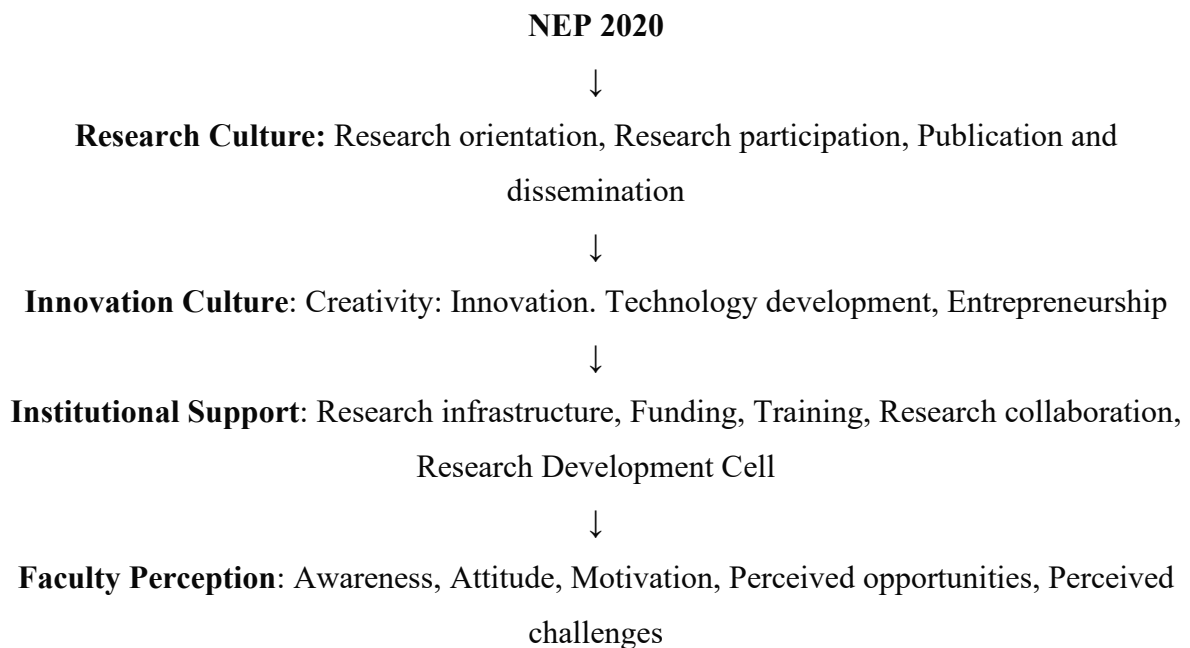
6. Hypotheses

H01: There is no significant difference between male and female faculty members in their perceptions towards research and innovation under NEP 2020.

H02: There is no significant difference among faculty members with different levels of teaching experience in their perceptions towards research and innovation under NEP 2020.

7. Conceptual Framework

The conceptual framework of the study consists of five major dimensions:



8. Research Methodology

8.1 Research Design

The study adopted a **descriptive survey research design**.

The survey method was considered appropriate because the study intended to examine faculty perceptions regarding research and innovation under NEP 2020.

8.2 Population

The population comprised faculty members working in higher education institutions, with particular relevance to teacher education and higher education institutions.

8.3 Sample

For demonstrating the proposed statistical analysis, an illustrative sample of **120 faculty members** was considered.

Table: 1 Sample Distribution.

Variable	Category	N
Gender	Male	72
	Female	48
Teaching Experience	Up to 5 years	44
	6–10 years	40
	More than 10 years	36
Total		120

9. Research Tool

A researcher-developed **Faculty Perception Towards Research and Innovation under NEP 2020 Scale** was proposed.

The scale consisted of **20 statements** based on a five-point Likert scale:

Table: 2.

Response	Score
Strongly Agree	5
Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

Higher scores indicate more positive perceptions towards research and innovation under NEP 2020.

10. Dimensions of the Scale

The 20 items may be organized into the following dimensions:

Table 3.

Dimension	Items
Awareness of NEP 2020	1–4
Research Culture	5–8
Innovation Orientation	9–12
Institutional Support	13–16
Collaboration and Professional Development	17–20

11. Proposed Questionnaire

Faculty Perception Towards Research and Innovation Under NEP 2020

Please indicate your response using:

SA = Strongly Agree, A = Agree, UD = Undecided, D = Disagree, SD = Strongly Disagree

- 1) I am aware of the major research-related provisions of NEP 2020.
- 2) NEP 2020 provides greater importance to research in higher education.
- 3) NEP 2020 can strengthen the research culture of higher education institutions.
- 4) Faculty members should actively participate in research activities under NEP 2020.
- 5) NEP 2020 encourages faculty members to undertake interdisciplinary research.
- 6) Research should be integrated with teaching and learning.
- 7) NEP 2020 can motivate faculty members to undertake quality research.
- 8) Higher education institutions should provide adequate time for faculty research.
- 9) NEP 2020 promotes innovation and creativity among faculty members.
- 10) Innovation centres can contribute to improving the quality of higher education.
- 11) Technology can strengthen research and innovation activities.
- 12) Faculty members should be encouraged to develop innovative educational practices.
- 13) Institutions should provide adequate research infrastructure.
- 14) Research funding opportunities should be increased.
- 15) Institutions should provide training in research methodology and data analysis.
- 16) Research Development Cells can strengthen institutional research culture.
- 17) Collaboration among institutions can improve research quality.
- 18) Industry-academic collaboration can promote innovation.
- 19) Faculty members should be encouraged to participate in national and international research networks.
- 20) NEP 2020 can contribute to the development of a sustainable research and innovation culture.

12. Validity of the Tool

For actual research, the questionnaire should be submitted to a panel of experts in:

- Teacher Education
- Educational Research
- Higher Education
- NEP 2020

- Educational Psychology
- Statistics/Research Methodology

Experts may examine the items for relevance, clarity, language and alignment with the objectives.

Content validity may be established using expert judgment and, where appropriate, a Content Validity Index (CVI).

13. Reliability of the Tool

For the **illustrative dataset**, Cronbach's alpha was calculated to examine internal consistency.

Table 4: Reliability Statistics.

Scale	No. of Items	Cronbach's Alpha
Faculty Perception Scale	20	0.91

The illustrative Cronbach's alpha value of **0.91** indicates high internal consistency of the scale.

For an actual research paper, the alpha must be calculated from the researchers' real pilot-study responses.

14. Data Analysis

The data were analysed using: Mean, Standard deviation, Percentage, Cronbach's alpha, Independent-samples t-test, One-way ANOVA

The overall perception score was calculated by taking the mean of the 20 questionnaire items.

15. Descriptive Analysis

Table 5: Overall Faculty Perception Towards Research and Innovation Under NEP 2020.

N	Mean	SD	Interpretation
120	3.58	0.46	Positive

The illustrative mean score of **3.58** indicates that faculty members demonstrated an overall positive perception towards research and innovation under NEP 2020.

16. Item-Wise Analysis

Table 6: Mean Scores of Individual Items.

Item	Mean	SD
1	3.55	0.83
2	3.55	0.70
3	3.58	0.77
4	3.48	0.77
5	3.54	0.79
6	3.57	0.72
7	3.64	0.72
8	3.54	0.78
9	3.65	0.76
10	3.66	0.70
11	3.60	0.73
12	3.63	0.69
13	3.62	0.73
14	3.61	0.76
15	3.57	0.76
16	3.62	0.74
17	3.57	0.68
18	3.53	0.81
19	3.55	0.74
20	3.58	0.69
Overall	3.58	0.46

The highest illustrative mean was observed for Item 10, relating to the role of innovation centres (**M = 3.66**), followed by Item 9 concerning the promotion of innovation and creativity (**M = 3.65**).

The comparatively lower mean was observed for Item 4 (**M = 3.48**), suggesting that faculty participation and engagement in research may require further institutional encouragement.

17. Gender-Wise Analysis.

Table 7: Difference Between Male and Female Faculty Members.

Gender	N	Mean	SD
Male	72	3.59	0.46
Female	48	3.56	0.46

T = 0.353, p = 0.725

Since **p > 0.05**, the difference between male and female faculty members is not statistically significant.

Interpretation

The illustrative results indicate that male and female faculty members have broadly similar perceptions towards research and innovation under NEP 2020.

Therefore, the null hypothesis **H01 is accepted**.

18. Experience-Wise Analysis

Faculty members were divided into three groups:

- Group I: Up to 5 years
- Group II: 6–10 years
- Group III: More than 10 years

Table 8: Mean Scores According to Teaching Experience.

Teaching Experience	N	Mean	SD
Up to 5 years	44	3.58	0.44
6–10 years	40	3.63	0.49
More than 10 years	36	3.53	0.45

Table: 9 One-Way ANOVA.

Source	F	p-value	Decision
Between Groups	0.482	0.619	Not Significant

Since $p = 0.619 > 0.05$, there is no statistically significant difference among the three experience groups.

Therefore, the null hypothesis **H02 is accepted**.

19. Major Findings

Based on the illustrative analysis, the following findings were obtained:

- 1) Faculty members demonstrated an overall **positive perception** towards research and innovation under NEP 2020.
- 2) The overall illustrative mean was **3.58**, indicating a favourable perception.
- 3) The Faculty Perception Scale demonstrated high internal consistency with **Cronbach's alpha = 0.91**.
- 4) Male and female faculty members did not differ significantly in their perceptions.
- 5) Faculty members with different levels of teaching experience did not differ significantly in their perceptions.
- 6) Innovation, technology and institutional research mechanisms were perceived as important components of the research-oriented higher education system.

7) Institutional research infrastructure, research funding, training and collaboration remain important areas for strengthening research and innovation.

20. DISCUSSION

The findings of the illustrative study are consistent with the broad direction of NEP 2020, which seeks to develop higher education institutions as vibrant multidisciplinary environments with stronger research communities. The policy emphasizes faculty and institutional autonomy and recognizes research and innovation as important components of higher education transformation.

NEP 2020 specifically recommends that higher education institutions focus on research and innovation through start-up incubation centres, technology development centres, frontier research centres, industry-academic linkages and interdisciplinary research. It also envisages the National Research Foundation as a mechanism to support a vibrant research and innovation culture.

The positive overall perception observed in the illustrative analysis suggests that faculty members may recognize the importance of these reforms. However, positive perception alone does not guarantee successful implementation. Institutional support, availability of research infrastructure, funding, mentoring, time allocation, professional development and collaboration opportunities are essential.

The Ministry of Education's current implementation framework also identifies research collaboration and Research and Development Cells as important components of strengthening research and innovation in higher education institutions.

21. Educational Implications

The study has several implications for higher education institutions.

21.1 Strengthening Research Culture

Institutions should create an environment in which research is integrated into academic activities rather than treated only as a requirement for promotion.

21.2 Research Development Cells

Research Development Cells can be strengthened to coordinate research activities, mentoring, proposal development, collaborations and dissemination.

21.3 Faculty Development

Regular workshops should be organized on: Research methodology, Statistical analysis, SPSS/R/Python, Academic writing, Research ethics, Intellectual property rights, Patent and innovation processes, Systematic literature review and AI-assisted research tools

21.4 Research Funding

Institutions should provide seed grants and facilitate faculty members in applying for external research grants.

21.5 Interdisciplinary Research

Faculty members should be encouraged to undertake interdisciplinary research involving education, psychology, technology, social sciences and other disciplines.

21.6 Industry-Academic Collaboration

Collaboration with schools, educational organizations, industries, NGOs and research institutions can provide opportunities for applied research and innovation.

22. Recommendations

Based on the study, the following recommendations are proposed:

- 1) Every higher education institution should develop a clear **Research and Innovation Policy** aligned with NEP 2020.
- 2) Research Development Cells should be made functional and adequately supported.
- 3) Faculty members should receive regular research methodology training.
- 4) Institutions should provide seed funding for innovative research projects.
- 5) Faculty members should be encouraged to publish in quality peer-reviewed journals.
- 6) Interdisciplinary research groups should be established.
- 7) Institutions should provide research databases and digital resources.
- 8) Faculty research workload should be balanced with teaching and administrative responsibilities.
- 9) Mentoring systems should be established for early-career researchers.
- 10) Institutions should organize annual research and innovation conferences.
- 11) Faculty members should be encouraged to develop patents, educational innovations and research-based teaching practices.
- 12) Collaboration among universities, colleges and research institutions should be promoted.

23. Limitations of the Study

The study may have the following limitations:

- 1) The study focuses on faculty perceptions rather than direct measurement of institutional implementation.
- 2) The findings may be influenced by respondents' self-reported perceptions.
- 3) The study may be limited to selected higher education institutions.
- 4) The sample size may limit generalization.

24. Suggestions for Further Research

Future researchers may undertake studies on:

- 1) Implementation of NEP 2020 and research productivity among university faculty.
- 2) Research competency of teacher educators under NEP 2020.
- 3) Role of AI in research and innovation in higher education.
- 4) Effectiveness of Research Development Cells in HEIs.
- 5) Faculty motivation towards interdisciplinary research.
- 6) Institutional barriers to research under NEP 2020.
- 7) Relationship between research support and faculty research productivity.
- 8) Comparative study of government and private higher education institutions.
- 9) NEP 2020 and innovation competencies among prospective teachers.
- 10) Research culture in B.Ed. colleges in Gujarat.

25. CONCLUSION

NEP 2020 seeks to transform Indian higher education into a multidisciplinary, flexible, innovative and research-oriented system. Research and innovation are important components of this transformation. The policy emphasizes stronger research communities, interdisciplinary research, institutional autonomy, innovation centres, technology development, industry-academic linkages and research support mechanisms.

The illustrative findings of the present study indicate that faculty members generally demonstrate a positive perception towards research and innovation under NEP 2020. The absence of significant differences based on gender and teaching experience suggests that support for research and innovation may be broadly shared across faculty groups.

However, successful implementation requires more than positive perceptions. Higher education institutions need to provide adequate infrastructure, funding, training, mentoring,

collaboration opportunities and institutional encouragement. A sustainable research culture can emerge when research becomes an integral part of institutional academic life.

Thus, faculty members should be positioned not merely as implementers of NEP 2020 but as active contributors to the research, innovation and knowledge-creation ecosystem envisioned by the policy.

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