

National Education Policy 2020 And Curriculum Transformation in Higher Education: Implications For Skill Development and Employability

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Abstract—Graduate employability has emerged as a major concern within higher education systems, particularly in developing economies undergoing rapid technological and structural change. In India, persistent gaps between academic curricula and labour market requirements have prompted comprehensive policy reforms. The National Education Policy (NEP) 2020 seeks to address these challenges by promoting curriculum flexibility, multidisciplinary learning, outcome-based education, and skill development. This study empirically examines the impact of NEP 2020-aligned curriculum transformation on skill development and employability in higher education institutions. Using a quantitative research design, data were collected from undergraduate and postgraduate students enrolled in institutions implementing NEP-oriented curricular practices. Structural Equation Modelling (SEM) was employed to analyse the relationships between curriculum transformation, student engagement, skill development, and perceived employability. The findings indicate that curriculum flexibility, experiential learning, and competency-based education significantly enhance student engagement and skill development, which in turn positively influence employability outcomes. The study provides policy-relevant evidence supporting NEP 2020 reforms and offers practical recommendations for effective curriculum implementation in higher education.

Index Terms—NEP 2020, Curriculum Transformation, Higher Education, Skill Development, Employability, Outcome-Based Education.

I. INTRODUCTION

Higher education is widely recognized as a key driver of economic growth, innovation, and social mobility. However, increasing concerns regarding graduate employability have raised questions about the relevance and effectiveness of traditional higher education curricula. In India, despite significant expansion in higher education enrolment, employers continue to report deficiencies in graduates' practical skills, analytical abilities, and workplace readiness.

The National Education Policy (NEP) 2020 represents a landmark reform aimed at addressing these systemic challenges. The policy emphasizes curriculum flexibility, multidisciplinary education, experiential learning, competency-based assessment, and alignment with industry needs. By shifting the focus from content accumulation to learning outcomes and skills, NEP 2020 seeks to prepare students for dynamic and uncertain labour markets.

Curriculum transformation lies at the core of NEP 2020's higher education reforms. Innovations such as multiple entry-exit options, the Academic Bank of Credits, vocational integration, internships, and project-based learning signify a departure from rigid, discipline-bound educational models. While policy documents highlight the expected benefits of these reforms, empirical studies assessing their actual impact on skill development and employability remain limited. This study addresses this gap by examining the effectiveness of NEP-aligned curriculum transformation in enhancing student outcomes.

II. REVIEW OF LITERATURE

1. NATIONAL EDUCATION POLICY 2020

The National Education Policy (NEP) 2020 represents a comprehensive reform agenda aimed at transforming India's education system to address the challenges of globalization, technological advancement, and skill mismatches in the labour market (Government of India, 2020). The policy emphasizes learner-centric, flexible, and inclusive education, with a strong focus on quality, equity, and relevance. In the context of higher education, NEP 2020 advocates outcome-based education, multidisciplinary curriculum structures, digital integration, experiential learning, and continuous assessment mechanisms (Agarwal, 2020).

Existing literature suggests that NEP 2020 seeks to align Indian higher education with global best practices by shifting from rigid, content-heavy curricula toward competency-based and skill-oriented learning models (UNESCO, 2021; OECD, 2019). Scholars further argue that the policy directly addresses long-standing concerns related to graduate employability, skill mismatches, and limited industry relevance by prioritizing holistic development and lifelong learning (Kumar & Choudhury, 2020; Mishra & Dash, 2021). Consequently, NEP 2020 is widely regarded as a strategic policy intervention aimed at strengthening human capital formation and enhancing workforce readiness (Tilak, 2015).

2. CURRICULUM TRANSFORMATION IN HIGHER EDUCATION

Curriculum transformation in higher education refers to a systematic redesign of curriculum objectives, content, pedagogical approaches, and assessment strategies to enhance relevance, effectiveness, and learning outcomes (Rao, 2018). Contemporary research highlights that traditional curriculum, which emphasize theoretical knowledge over practical application, are increasingly inadequate in preparing graduates for dynamic labour market requirements (Brown et al., 2003).

Outcome-Based Education (OBE) has emerged as a dominant framework guiding curriculum reform across higher education systems globally (Knight & Yorke, 2003). OBE emphasizes clearly articulated learning outcomes that are aligned with desired skills, competencies, and professional attributes. Empirical

studies demonstrate that OBE-oriented curricula promote active learning, improve student engagement, and enhance learning effectiveness by aligning teaching and assessment with measurable outcomes (Prince, 2004; Kolmos et al., 2009). Within the Indian higher education context, NEP 2020's emphasis on curriculum flexibility, multidisciplinary exposure, and competency-based assessment closely reflects OBE principles and supports meaningful curriculum transformation (Government of India, 2020).

3. SKILL DEVELOPMENT AND EMPLOYABILITY

Skill development is a multidimensional construct encompassing technical competencies, cognitive abilities, and soft skills such as communication, adaptability, teamwork, and problem-solving (Jackson, 2015). Research consistently indicates that employability is no longer determined solely by academic qualifications but increasingly depends on graduates' ability to apply knowledge effectively in real-world professional settings (Yorke, 2006).

Several studies emphasize that experiential learning approaches—including internships, project-based learning, work-integrated learning, and industry collaboration—play a critical role in developing employability skills (Bridgstock, 2009; Harvey, 2001). Human Capital Theory provides a foundational explanation for this relationship, positing that investments in education and skills enhance individual productivity, earnings potential, and labour market outcomes (Becker, 1993). From this theoretical perspective, higher education institutions serve as key agents in building employable human capital by aligning curriculum design with industry-relevant skills and competencies (Singh & Sharma, 2021).

4. RESEARCH GAP

Although the literature on NEP 2020 is extensive in terms of policy analysis and conceptual discourse, empirical investigations examining the outcomes of its curriculum reforms remain limited (Mishra & Dash, 2021). In particular, there is a noticeable scarcity of studies that integrate curriculum transformation, student engagement, skill development, and employability outcomes within a single empirical framework under the NEP 2020 context.

Most existing studies either focus on policy interpretation or examine employability in isolation,

without explicitly linking it to NEP-aligned curriculum reforms (Kumar & Choudhury, 2020). This gap underscores the need for empirical research that systematically evaluates the mechanisms through which curriculum transformation under NEP 2020 influences skill development and employability in higher education. The present study addresses this gap by empirically validating a comprehensive model that captures these interrelationships.

5. THEORETICAL FOUNDATIONS

The present study is anchored in Human Capital Theory and Outcome-Based Education (OBE) Theory, which together provide a robust conceptual foundation for examining the relationship between curriculum transformation and employability.

Human Capital Theory posits that education enhances individuals' productive capacities by developing skills, knowledge, and competencies valued in the labour market (Becker, 1993). Within the NEP 2020 framework, curriculum reforms emphasizing experiential learning, vocational integration, multidisciplinary education, and skill certification represent strategic investments in human capital development aimed at improving employability outcomes (NSDC, 2022; World Economic Forum, 2020).

Outcome-Based Education (OBE) Theory emphasizes the alignment of curriculum design, pedagogy, and assessment with clearly defined learning outcomes (Knight & Yorke, 2003). NEP 2020's focus on competency-based curricula, continuous assessment, and skill-oriented learning outcomes closely reflects OBE principles and seeks to improve learning effectiveness and employability readiness (Government of India, 2020).

By integrating these theoretical perspectives, the study conceptualizes NEP 2020-aligned curriculum transformation as a structured pathway through which enhanced student engagement and skill acquisition contribute to improved employability outcomes in higher education (Yorke & Knight, 2006).

III. OBJECTIVES OF THE STUDY

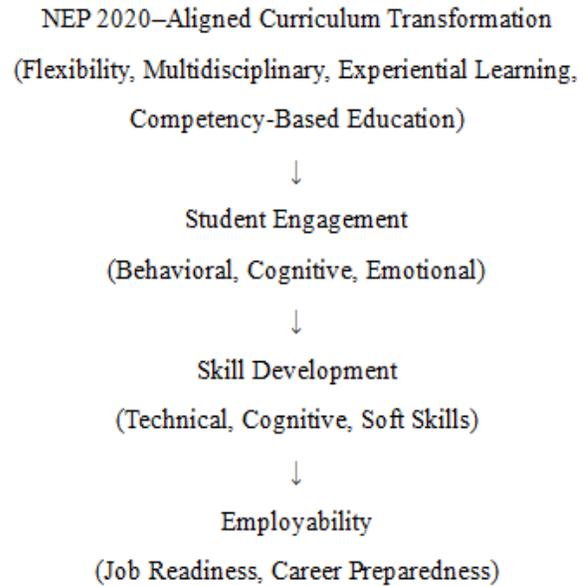
1. To examine the dimensions of curriculum transformation under NEP 2020.
2. To analyse the effect of NEP-aligned curriculum on student engagement.

3. To assess the impact of curriculum transformation on skill development.
4. To examine the relationship between skill development and employability.
5. To test the mediating role of student engagement and skill development.

IV. CONCEPTUAL FRAMEWORK

The conceptual framework is grounded in Outcome-Based Education and Human Capital Theory. NEP 2020-aligned curriculum transformation is proposed as the independent variable influencing student engagement and skill development, which subsequently affect employability.

FIGURE 1: CONCEPTUAL FRAMEWORK OF THE STUDY



V. RESEARCH HYPOTHESES

- H1: NEP 2020-aligned curriculum transformation positively influences student engagement.
- H2: NEP 2020-aligned curriculum transformation positively influences skill development.
- H3: Student engagement has a significant positive effect on skill development.
- H4: Skill development has a significant positive effect on employability.

- H5: Student engagement and skill development mediate the relationship between curriculum transformation and employability.

VI. RESEARCH METHODOLOGY

1. RESEARCH DESIGN

A descriptive and analytical research design using a quantitative approach was adopted.

2. SAMPLE AND DATA COLLECTION

Primary data were collected from undergraduate and postgraduate students enrolled in higher education institutions implementing NEP 2020 curriculum components. A total of 350 questionnaires were distributed, and 320 valid responses were used for analysis.

3. MEASUREMENT OF VARIABLES

All variables were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

TABLE 1: MEASUREMENT OF CONSTRUCTS

Construct	Key Dimensions
Curriculum Transformation	Flexibility, Experiential Learning, Competency-Based Education
Student Engagement	Behavioural, Cognitive, Emotional
Skill Development	Technical, Cognitive, Soft Skills
Employability	Job Readiness, Career Confidence

4. DATA ANALYSIS TOOLS

- Reliability Analysis (Cronbach’s Alpha)
- Confirmatory Factor Analysis (CFA)
- Structural Equation Modelling (SEM)

5. ETHICAL CONSIDERATIONS

Ethical standards were strictly adhered to throughout the research process. Participation in the survey was voluntary, and respondents were informed about the purpose of the study. Anonymity and confidentiality of responses were ensured, and no personally identifiable information was collected. The data were used solely for academic research purposes.

VII. RESULTS AND ANALYSIS

Reliability analysis indicated Cronbach’s alpha values above 0.70 for all constructs, confirming internal consistency. CFA results established convergent and discriminant validity. SEM results revealed statistically significant relationships among the constructs.

7.1 DESCRIPTIVE STATISTICS

Descriptive statistics were computed to understand respondent perceptions of NEP-aligned curriculum practices, engagement, skill development, and employability.

TABLE 3: DESCRIPTIVE STATISTICS OF STUDY VARIABLES

Construct	Mean	Std. Deviation
Curriculum Transformation	3.94	0.68
Student Engagement	3.88	0.71
Skill Development	4.01	0.65
Employability	3.92	0.69

The results indicate generally positive perceptions among students regarding NEP 2020-aligned curriculum reforms and their contribution to skill development and employability.

TABLE 2: HYPOTHESIS TESTING RESULTS

Hypothesis	Relationship	B	p-value	Result
H1	Curriculum → Engagement	0.62	<0.01	Supported
H2	Curriculum → Skills	0.59	<0.01	Supported
H3	Engagement → Skills	0.56	<0.01	Supported
H4	Skills → Employability	0.68	<0.01	Supported

Mediation analysis confirmed partial mediation by student engagement and skill development.

VIII. DISCUSSION

The findings of this study provide robust empirical validation of NEP 2020's curriculum reform agenda in Indian higher education. Consistent with Human Capital Theory, curriculum flexibility and experiential learning significantly enhanced skill development, thereby improving employability perceptions.

The strong relationship between student engagement and skill development aligns with international studies emphasizing active learning and learner-centered pedagogy. The results further support Outcome-Based Education frameworks, demonstrating that competency-based curricula foster job readiness and career confidence.

In the Indian context, where graduate unemployment and skill mismatch remain critical challenges, these findings highlight the transformative potential of NEP 2020 when effectively implemented. Compared to earlier rigid curricular structures, NEP-aligned reforms offer a more adaptive and labor-market-responsive educational model.

IX. IMPLICATIONS OF THE STUDY

9.1 CONTRIBUTION TO POLICY AND PRACTICE

This study makes several meaningful contributions to both educational policy and institutional practice. First, it provides robust empirical evidence validating the objectives of National Education Policy 2020 with respect to curriculum transformation in higher education. By demonstrating the positive impact of NEP-aligned curricular reforms on skill development and employability, the study substantiates the policy's strategic emphasis on outcome-oriented education.

Second, the study develops and empirically validates a conceptual framework that links curriculum transformation, student engagement, skill development, and employability. This framework can serve as a practical diagnostic and evaluative tool for higher education institutions seeking to assess the effectiveness of NEP 2020 implementation.

Third, the findings offer actionable insights for policymakers by highlighting the critical role of experiential and competency-based learning in preparing graduates for evolving labour market requirements. The results emphasize that curriculum reform must be complemented by effective pedagogical execution to achieve workforce readiness.

9.2 ACADEMIC IMPLICATIONS

From an academic perspective, the study contributes to the growing body of literature on curriculum reform and graduate employability by providing empirical validation of NEP 2020 initiatives within the Indian higher education context. It bridges a significant research gap by integrating policy-driven curriculum transformation with established theoretical perspectives on human capital development and outcome-based education. The findings extend existing scholarship by empirically demonstrating the mechanisms through which curriculum reforms translate into employability outcomes.

9.3 PRACTICAL IMPLICATIONS

The findings offer important implications for higher education institutions and academic administrators. Institutions are encouraged to strengthen experiential learning components, including internships, project-based learning, industry interactions, and skill certification programs. Greater collaboration with industry stakeholders can ensure curriculum relevance and enhance students' practical exposure, thereby improving employability outcomes. Faculty development initiatives aimed at implementing competency-based pedagogy are also essential for maximizing the benefits of curriculum transformation.

9.4 POLICY IMPLICATIONS

At the policy level, the study reinforces the need for continued, systematic, and uniform implementation of NEP 2020 across higher education institutions. Policymakers should prioritize institutional capacity-building, monitoring mechanisms, and resource allocation to ensure effective curriculum reform. The findings support the integration of employability metrics into quality assurance and accreditation frameworks, thereby aligning national education objectives with labour market needs and long-term human capital development goals.

X. CONCLUSION

The findings of this study provide strong empirical evidence that NEP 2020-aligned curriculum transformation plays a pivotal role in enhancing skill development and employability in higher education. By promoting curriculum flexibility, experiential learning, multidisciplinary exposure, and competency-

based education, NEP 2020 facilitates a shift from traditional, content-driven instruction toward outcome-oriented learning. The results demonstrate that such curricular reforms significantly improve student engagement and foster the development of technical, cognitive, and soft skills that are essential for workforce readiness.

The study further highlights the mediating role of student engagement and skill development in translating curriculum reforms into employability outcomes. This underscores the importance of active learning environments and learner-centered pedagogical approaches in maximizing the effectiveness of curriculum transformation. From a policy perspective, the findings validate NEP 2020's emphasis on holistic education and provide empirical support for its continued implementation across higher education institutions.

Effective and consistent curriculum implementation emerges as a critical success factor in achieving NEP 2020's objectives. Institutions that strategically integrate experiential learning opportunities, industry collaboration, and competency-based assessment mechanisms are better positioned to produce future-ready graduates. Ultimately, the study reinforces the view that curriculum transformation under NEP 2020 is not merely an academic reform but a strategic investment in national human capital development, contributing to sustainable economic growth and social advancement.

XI. LIMITATIONS AND FUTURE RESEARCH

Despite its empirical contributions and policy relevance, this study has certain limitations that should be acknowledged. First, the research relies on self-reported perceptions of students, which may be subject to response bias and social desirability effects. While perceptual measures are commonly used in employability research, they may not fully capture actual skill proficiency or employment outcomes.

Second, the cross-sectional research design limits the ability to establish causal relationships among curriculum transformation, skill development, and employability. Longitudinal studies tracking students over time would provide deeper insights into the sustained impact of NEP 2020 curriculum reforms on career trajectories and workforce integration.

Third, the study is confined to selected higher education institutions, which may limit the generalizability of the findings across diverse institutional types and disciplines. Future research could adopt discipline-wise and institution-wise comparative analyses to examine variations in NEP 2020 implementation and outcomes. Additionally, incorporating employer and faculty perspectives would enrich understanding of skill relevance, curriculum effectiveness, and industry alignment.

Future studies may also explore the role of digital pedagogy, assessment reforms, and faculty readiness as moderating variables in the relationship between curriculum transformation and employability. Such research would contribute to a more comprehensive evaluation of NEP 2020's long-term impact on higher education and labour market outcomes.

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