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Framework and Strategies to Implement the National Education Policy -2020

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ARTICLE INFORMATION

ABSTRACT

Background: The higher education institutions will go a major innovation, reform, and change to achieve the goal of achieving quality, accreditation, and autonomy.

Purpose: To evolve a holistic framework and strategies for achieving, quality, accreditation, and autonomy.

Methods: The study is an exploratory qualitative study. The unstructured questionnaire is used for conducting the research which is responded to by 754 respondents working in higher and technical education institutions in the country.

Result: The framework suggested in this study is having four rings. The innermost ring is a governing ring that is responsible for the professional governance of the institute with the help of the governing teams. The second ring is the capacity-building ring which is responsible for capacity building and capacity development and creating an innovative climate and culture. The third ring is a functional ring that is responsible for implementing the innovations, reforms, and change in the institute that are aligned to the provisions of the national education policy 2020. The fourth ring is the product and service ring and also the outermost ring which is responsible for the interface between the institution and the external environment.

Conclusion: The reform-oriented institutions are provided strengths by these four rings to obtain accreditation and autonomy and sustain it. The strategies for each ring are suggested in the context of the National Education Policy 2020. It is suggested to implement the framework and strategies to effectively, efficiently, and productively implement the innovations in the institute.

1. Introduction

In the next fifteen years, the higher education institutions (HEIs) will reengineer their systems and processes to achieve the quality vision as envisaged in the National Education Policy (NEP) 2020. The HEIs will implement reforms to achieve the goals of the institute. The HEIs will revitalize the governance and management structure for implementing the provisions of the NEP 2020 to achieve quality, accreditation, and autonomy(MHRD, 2020). The HEIs will implement reforms in all areas of functioning of the institute such as governance, academics, research, consultancy, use of information communication technology, outcome-based education, entrepreneurship, flexibility in education, and the like. They will design and implement major change which is different from the conventional governance and management of the institute. The HEIs will shake the conventional hierarchical structure, tasks, processes, and people. They will evolve a new equilibrium that comprises an innovative structure, tasks, processes, and people. In this study, a framework and strategies are evolved aligned to effective implementation of NEP 2020. This framework enables institutions to obtain accreditation and autonomy and sustain it for continuous improvement.

2. Literature Review

A brief review of the literature related to autonomy and framework of autonomy is chronologically stated in subsequent paragraphs.

Kirk D. Silvernail, (2021) Academic freedom and faculty self-governance and fairness policies of the institute are studied.

B. L. Gupta, (2021) described the core dimensions of autonomy such as strategic direction, curriculum, cross-disciplinary and interdisciplinary, value-based education, research, and publication. The associated dimensions of

autonomy such as collaboration, innovation, consultancy, contribution tothe national mission, continuing education programmes, and fundraising.

B. L. Gupta, (2020) described the regulatory structure of higher education at the national level, governance and management structure at higher education institutions, formation of management teams, barriers to functioning of the teams, outcomes of teams structure and impact of autonomy on the performance of the institute, and accountability of the institutions.

UGC, (2019) in chapter 2.5 for Vice - chancellors, it is mentioned that Vice - chancellors should be able to create teams and foster teamwork, building partnerships and collaborations.

Say Sok, (2019) discussed the key issues of governance and management, system-level governance, outcomes of the reform, autonomy and accountability.

UGC, (2018) regulate the autonomous institutions using provisions of the scheme. The scheme is comprehensive and encourages colleges to maintain the standards and provisions of autonomy.

Andrea Frankowski, (2018) proposed a framework for strategic governance comprising accountability, capacity, knowledge governance, stakeholder involvement, strategic thinking and whole-of-system perspective.

Neeleman, (2018) classified school interventions on education, organization, and staff. the organization structure is changing the teams, improving the functioning of the teams, relocating staff across teams and more autonomy at the team level.

Cecile Hoareau McGrath, (2016) governance is defined as the framework in which an institution pursues its vision in a coherent and coordinated manner (adapted) and management refers to the implementation of activities to achieve the goals.

Swanger, (2016) The structure of the university can create resistance to innovation. The structure should encourage the concept of shared governance and participative decision making in the university. The recommendations for innovating existing colleges are to adopt a business model, create a new line of business, focus on innovation, administrative and student services, regulatory reforms and focus on outcomes.

Sandhu, (2015) stressed the need for reassessment of governance of the university. The need for strengthening the internal governance and implanting the representatives of stakeholders is emphasised to meet the challenges, improve the efficiency and make it dynamic.

Cerna (2014) defined the relationship among innovation, governance and reforms for educational institutions. The fine line of difference between innovation, reform and change on definition, key characteristics and types. The governance has elements such as accountability, leadership, trust, and professionalism.

Harry Anthony Patrinos, (2013) discussed a framework for improving the quality of education comprising six factors assessment, autonomy, accountability, attention to teachers, and childhood development and culture.

B. L. Gupta, (2013) described the academic excellence on input, process, output and deployment. Dimensions and characteristics of excellence are defined.

N. V. Varghese & Michaela Martin Overnance, (2013) stated that the reforms in higher education were implemented for different purposes in different countries. These purposes are to enhance administrative efficiency, quality and relevance of academic offer, relevance of research, and generate income.

B. L. Gupta, (2007) the chapter on planning for development describes the governance structure and process for preparing the institutional development plan. The governance and management structure isa teams structure comprising formal and informal teams, standing and temporary teams for ensuring effective and efficient functioning of the institute and implementing innovations.

Malik (2007) cited the flexible shared governance model of Lapworth and stated that strengthened steering core, Senate, Board, Management and faculty constitute the structure. She listed the regulatory and statutory bodies in higher education in India. She has stated that the governance structure in Indian Universities is hierarchical comprising individual positions and committees in a line of command. She stated that autonomous colleges are governed by the governing body, academic council, board of studies and finance committee.

B. L. Gupta, (2009) described the role of organizational structure and characteristics of organizational structure for technical institutions.
B. L. Gupta, (2007) described the participatory management approaches and their application in the management of polytechnics. The author described the benefits, factors and limitations of participatory management.

M. Saxena (1999) described the concept of governance, composition of governing body, structure, roles, responsibilities and accountability of governing

body, areas of governance, barriers to the effective functioning of governing body, strategies for enhancing participation and development of governing body members, and the role of the principal in enhancing the participation of board members.

Discussion on literature review: The research evidence is available in the literature on various aspects of autonomy such as self-governance, dimensions of autonomy, teamwork, key issues in governance and management, strategic governance, governance framework, assessment of governance of institutions, relationship between governance and innovation, shared governance and the like.

Literature Gap: There is no clear framework in vogue for reform-oriented HEIs in the context of quality of education, accreditation, autonomy and excellence.

Therefore, a result-based principle framework is proposed in this study which is having four rings. It is stated as a) The innermost ring is a governing ring; b) The second ring is the capacity-building ring; c) The third ring is a functional ring; d) The fourth/outermost ring is the product and service ring. The reform-oriented institutions are provided strengths by these four rings to obtain accreditation and autonomy and sustain it. The strategies for each ring are suggested and discussed in the context of the National Education Policy 2020.

3. Research Objective

To evolve a holistic framework for the HEIs to achieve quality, accreditation, and autonomy in the context of NEP 2020.

4. Research Methodology

It is a qualitative cross-sectional research study incorporating all significant steps of research of this category in the context of higher education.

Research instrument: An unstructured research instrument designed by the researcher is used to gather information. The research instrument was designed based on the requirements of the reforms and validated by 10 senior faculty members on content and construct.

Respondents: The research instrument was responded by 754 respondents working in HEIs at different positions all over the country.

Data analysis: The qualitative data received was conceptualised in the form of a frame. The frame was conceived with the progress of the data analysis.

5. Results and Discussion

At the autonomous institute level, a framework and strategies are suggested which are based on the primary views of the participants, provisions of NEP 2020, and secondary evidence available in various researches and documents. The framework and strategies are in addition to the routine framework and strategies used by traditional institutions. The framework consists of four rings for autonomous institutes as shown in Fig. 1.
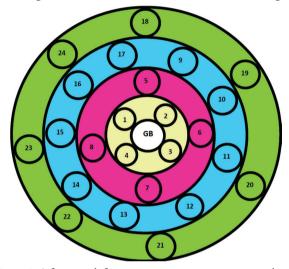

Figure 1: A framework for sustaining autonomy at institute level.

Legend

Governing ring: GB-Governing Body, 1-Academic Team, 2-Managerial Team, 3- Administrative Team, 4-Finance Team

Capacity building ring: 5-Strategic human resource management cell, 6-Training, and development cell, 7-Mentoring coaching, guidance, and counselling cell, 8-Grievance management cell

Functional ring: 9-Planning and development cell, 10-Curriculum development cell, 11-Quality assurance, and academic audit cell, 12-autonomy cell, 13-Documentation cell, 14-Research, and innovation cell, 15-Industry liaising and training and placement cell, 16-Entrepreneurship development cell, 17-Mentoring, coaching, guiding and counseling cell for students

Product and service ring: 18-Publication cell, 19-Continuing education cell, 20-Brand building cell, 21-Corporate relationship cell, 22-National mission cell, 23-Alumni cell, 24- Services cell.

Governance ring: The first innermost ring is governance consisting of governing body facelifted by

academic, managerial, administrative, and financial teams to take policy decisions and approve guidelines for the institute to use the full potential of autonomy.

Capacity building ring: The second ring is capacity-building which develops the capacity of individuals, groups, and institutions to accept the challenges of change and effectively implement the change and innovations in the institute.

Functional ring: The third ring is the functional ring which takes care of the effective and efficient functioning of the institutes to achieve the planned goals of the institute.

Product and service ring: The fourth ring is the outermost ring which has an interface with the outer world for providing products and services to the satisfaction level of different significant stakeholders.

5.1. Governance ring: Institute governance - Framework and strategies

Autonomous institutes should create a professional governance system to harness the potential of autonomy for the benefit of students, employers, and funding agencies. There should be at least one team in the academic, managerial, administrative, and finance areas to facilitate the governing body of the institute. The governing structure of the institute should facilitate the institute through policies and guidelines to function in a professional manner. The structure should make the institutes accountable to governing body and stakeholders.

Framework	Strategies
Academic	**Mentoring of the institute:** The institutions should come forward to learn from premier institutes of the county and world to quantitatively and qualitatively grow to maintain the quality of education, research, and services. The institute may have more than one mentoring institute with different purposes in different areas of functioning. If the institute is having the potential to mentor other institutes, it should mentor other institutes for mutual benefit. The institute may become a mentor as well as a mentee in different areas of functioning.
Managerial	**Visionary leader:** The autonomous institutes should appoint a visionary leader who can lead the institute for change, innovation, and experimentation. **Institute development plan:** The autonomous institutes should prepare an institutional development plan (strategic, perspective and annual) incorporating the provisions of the NEP 2020. The institutions should pursue the accomplishment of missions and vision in a professional and innovative way. The educational programmes should be offered based on the need of society and obsolete programmes should be terminated at right time. **Self-regulatory systems:** The institute should establish a self-regulatory system to ensure the effectiveness and efficient implementation of educational programmes, researches, and services. The process of self-disclosure should be followed at all levels. Institutions should use methods of decentralized, delegation and empowerment to decentralize and distribute the decision-making power where the role is performed.
Administrative	**Administration system:** The administration system should encourage the accomplishment of institutional goals, quality, and excellence. It should be transparent and objective for all purposes. The mandatory disclosure and other statutory information should be declared on the institute's website. The academic discipline should be ensured in the institute using well designed administrative processes that are transparent. The administrative processes should be encouraging and motivating and should not create frustration and demotivation, tension and stress in the employees. The transfers in government institutes should be minimum.
Financial	**Financial management:** The institute should manage the financial resources to fund institutional development plan, innovations, researches, curricular, co-curricular, and extracurricular events. It should create each department, educational programme, project, and event as self-supporting. The institute policy should encourage fundraising through various legitimate sources like consultancy, continuing education programmes, researches, industrial assignments, donations, sponsorship. Institutions have a financial buffer to deal with uncertainties. The financial powers should be delegated where the role is performed. The institute should publish audited statements in the public domain. The institute should decentralise financial and other powers at the lowest level. Financial support from the government may be increased for various innovative, research, and student development-oriented activities. Full financial support from the government should be provided with full financial autonomy. The institute should be compelled to provide salaries as per norms set at the national or state level.

5.2. Capacity-building ring: Framework and Strategies

The autonomy should be used for own capacity building of education leaders, faculty members, and staff members to accept the challenges of higher education and grab the opportunities for quality and excellence. The autonomous institutes should develop the capacity to design and implement academic programmes, researches, and services related to innovations. They should develop in-house capability to manage their academic, research, and service-related activities. Professional competence, willingness to accept the challenges, creating an environment of trust and confidence, enforcing accountability for quality, an attitude of owning, cooperative and collaborative attitude, and leadership should be developed. The institute should gradually empower the departments and cells to manage their core activities without prior approval of the higher authorities following the policy guidelines. They should identify and create sustained sources of finance to support their routine and innovative activities.

Framework	Strategies
Strategic human resource management cell (SHRMC)	**Strategic human resource management cell:** The autonomous institutes should have a strategic human resource management cell at the institute level to harness the full potential of individuals and groups for achieving the goals of the institute.
	Selection: The institutions should establish a transparent selection process for all levels and types of positions. Competent people should be selected and posted on all positions. The existing people should be appropriately deployed for the right role to ensure effective performance and achieve outcomes.
	Career progression: The institutions should create multiple paths for career progression in different areas of functioning of the institute for those who excel and have the potential to excel in newer areas.
	Deployment and redeployment of resources: The institute should deploy and redeploy the resources for achieving various objectives. The human resources should be appropriately deployed for harnessing their full potential and developing them. The process of internal selection, deployment, and redeployment should be transparent. The utilization of physical resources should be increased to the highest level.
	Recognition of achievements: The institute should establish a recognition system (appreciation, prizes, mementoes, certificates, open appreciation, increments, promotion, projects of choice) for individual and team accomplishments for faculty members and students in various fields. The satisfaction of faculty members is ensured to retain them in the institute.
	Profile of faculty members: The cell should maintain the profile of the faculty members on various significant parameters (Specialization, experience, research publication with indexing and abstracting, awards, projects managed, and patents) to support evidence-based decision making and deploying and redeploying the faculty and staff members for various purposes.
	Satisfaction: In autonomous institutions, the satisfaction of faculty members should be very high on parameters such as professional satisfaction in getting, appreciation, incentive, encouragement for innovative contribution, financial benefits, and career growth and development.
Training and development cell	The autonomous institutes should have a training and development system for educational leaders, faculty members, and staff for developing essential and desirable competencies to perform the roles effectively, efficiently, and productively in different areas of the functioning of the institute.
	Educational leaders should be trained in management development, organization development, and quality assurance.
	The faculty members should be trained in domain-specific areas, pedagogy, research, and managing various portfolios in the institute. They should be mentored as envisaged in the national mentoring mission.
	Interaction among faculty members should be increased on issues and challenges the institute is facing.
Mentoring, coaching, guidance, and counselling cell	The institute should establish mentoring coaching, guidance, and counselling programme for harnessing the full potential of faculty members and staff members. The mentoring programme should be considered an institutional capacity building programme using the expertise available within the institute and the country.

Grievance management cell	The autonomous institutes should establish grievance management cell for faculty and staff members to amicably solve their grievances without creating any stress and frustration.
	Satisfaction of students: In autonomous institutions satisfaction of students should be very high on parameters such as the development of competency, implementation of curricular activities and event, facilities such as drinking water, electricity, cleanliness, hygiene, transport, and canteen, implementation of extra-curricular activities and events, implementation of co-curricular activities and events, development of life skills, soft skills, emotional intelligence and professional skills, Internet facility, e-learning resources, and software, teaching-learning process, academic culture of the institute, ethics and moral values for making of a balanced personality, implementation of national and international level events, acquire career skills and fully pursue to take part in a successful career, avoid ambiguity, vagueness, unwanted generalizations issues, facilitating job placement of choice, the basics of entrepreneurship and develop business plans, and implementation of the research culture of the institute.

5.3. Functional ring: Framework and strategies

The effective and efficient functioning of the institute plays a significant role in satisfying the needs of the stakeholders. The strategic decisions of the governing body, statutory body, and higher management are implemented effectively and efficiently by institutional structure. The product and services created are used by the stakeholders for their satisfaction. At the functional level, the institute should take quick actions to ensure the quality of products and services. The framework suggested here is in addition to routine organizational structure.

Framework	Strategies
Planning and development cell	The autonomous institutions should have a planning and development cell to analyze the needs of different stakeholders and address them through institutional plans. The plans may be related to educational programmes, researches, services, fundraising, collaboration, brand building, infrastructure development, academic calendar. The cell should use scientific tools and techniques such as strengths, weaknesses, opportunities and challenges analysis, issue analysis, value analysis, prioritization for preparing the plans. The institutes should have performance indicators and standards published on the institute website.
	The institute should design and implement innovations to bring systemic improvement. A sudden change cannot be accepted by implementers and beneficiaries of the education system so step by step implementation of change may be promoted.
Curriculum development cell	The autonomous institutions should be fully involved in pursuing the vision and missions of the institute, implementing outcome-based education, deciding the curriculum of the programme, implementing learner-centred teaching-learning approaches. The education innovations and quality improvement indicators related to curricular practices and distinctly visible in the form of development of abilities in students, use of learner-centric learning methods, industrial internship, project-based learning, and outcome-based assessment.
	The institute should be permitted to design an outcome-based curriculum for all the programmes. The curriculum should be designed following national standards and guidelines issued by the regulatory bodies. The institute should revise the curriculum as per the needs of the industry and developments taking place in the industry. Practical based courses should have 80% practical and 20% theory. The institute should incorporate flexibility in the programme curriculum to make it interdisciplinary and multidisciplinary as envisaged in NEP 2020.
	The curriculum design should incorporate collaborative aspects of the implementation, minimum resources requirement, and the training required in faculty members and technical staff. The curriculum should be designed, involving representatives of all the stakeholders. The practical aspect of learning should be given more attention rather than theory.
	The institutions should be permitted to start, modify, and close the educational programme considering various factors, like admission, employment, funding, and entrepreneurship.
	Curriculum implementation
The institutes should develop systems and processes for the effective implementation of the outcome-based curriculum. The focus of curriculum implementation should be students centric teaching-learning, use of technology and information technology, encouraging higher-order thinking, fostering creativity, reflection, peer learning, self-learning, practical approaches, problem-based and project-based learning. The curriculum implementation processes should be reviewed frequently based on the academic audit report, feedback of the students, and co-faculty members. The students' major projects should be selected from the world of work situations which are related to complex problem solving, innovation, latest technology, and application-oriented. The industrial visit and internship should be an integral event of curriculum implementation.

Academic culture

At the institute level conducive, flexible, innovative, learning, development, quality, ethical environment should be created. The educational leaders, faculty members, staff members, and students should be encouraged to offer constructive feedback for improvement. A culture of openness, positivity, wellness, constructive criticism, respecting diversity should be created.

The institute should implement co-curricular and extra-curricular events and activities for the students to develop overall personality and professional abilities.

Value addition: The institute should introduce value addition certification programmes for students of educational programmes to enhance their academic profile. The institute may identify generic value addition courses such as life skills, soft skills, communication skills, entrepreneurial skills, information technology skills, Indian ethos, constitutional values, hygiene skills, for all disciplines of students, and specific value addition programmes for specific disciplines as envisioned in NEP 2020.

The institute should incorporate entrepreneurship development, incubation and information technology, and vocational skills in all curricula.

Learning management system: The institute should have a learning management system for educational programmes, training programmes, and research.

The cell should facilitate the curriculum implementation process by providing resources and guiding the process of implementation. It should analyze the feedback received from students, alumni, and employers for revising the curriculum.

At the institute level, encourage self-learning as an important aspect of learning and development.

Assessment of students learning

The assessment scheme, tools, techniques, and mode should be part of the curriculum design and implementation. The assessment should be used as a learning motivation, learning, learning problem diagnosis, and grading tool. The teaching-learning process should be followed to develop the learning outcomes and the assessment process should be integrated with it.

The students should be encouraged to participate in innovation, experimentations, national and international events for their development. The institute and faculty members should encourage the students to harness their full potential for learning and development.

Students' performance will speak about the quality of the programs.

Co-curricular and Extra-curricular	The autonomous institutions should be highly involved in encouraging participation of students in various technical, professional, and national publication and competitive events such as techno fest, student seminars, presentations, and other similar activities organized by other institutes, paper presentation, career opportunities, entrepreneurship, research, and development, various AICTE launched events and patent filing.

The autonomous institutions should seek very high participation of students in sports activities, cultural activities, organizing various academic and other events, community development activities, and activities of national importance. |
| Quality assurance and academic audit cell | The autonomous institutes should have a quality assurance system for academics, research, and services offered to beneficiaries, clients, and stakeholders. The recommendation of the cell should be implemented uniformly at the institute level.

The institute should establish systems and processes using scientific tools and techniques, software, and apps to assure the quality of education, research, and services. The educational leaders, faculty members, staff members, and students should be trained to assure the quality of learning and development at the institute level. The faculty members should be financially rewarded for achieving quality goals. The institute should follow national standards and guidelines for assuring the quality of education, research, and services.

An academic audit and monitoring mechanism for ensuring the quality of education should be implemented at the institute level. A scientific academic audit system should be designed and implemented at the institute level to assure quality and improve the quality of education and research. The academic audit should be used as a strong tool and technique to ensure continuous improvement in the quality of education and research. The autonomous institutes should conduct academic audits based on the institutional development plan and quality standards every year and in-depth academic audit every five years. The systems design and implementation should be improved based on the academic audit recommendations. Institutions should take corrective and preventive measures based on the recommendations of the academic audit.

The institute should create a strong and direct feedback mechanism for improving the design of the systems and processes and taking corrective and preventive actions. |

The institute should continuously improve the quality of performance to satisfy the criteria and sub-criteria set by the accreditation agency for obtaining accreditation from national and international agencies. The institute should strive for getting a higher level of accreditation and a greater degree of autonomy.

Institute should create a provision for external academic monitoring and academic audit every five years.

Autonomy cell	The autonomy cell should guide and facilitate the use of autonomy at all levels of functioning of the institute. It should gradually promote decentralization, delegation, and empowerment. It should have a grievance management system. **Accountability:** Autonomous institutes should enforce accountability at all levels of decision making using different approaches at different levels of decision making. Autonomy and accountability should be made mutually complementary at the institute level. The cell should exploit the full potential of autonomy at the institute level. This cell should provide guidance, support, and resources to implement the decisions. The cell should create awareness and educate educational leaders to use the autonomy to perform their roles and responsibilities. The faculty and staff members should be provided with the freedom to express their views on institutional functioning to improve the performance of the institute. The head of the institute and faculty members should listen to the problems, views, and suggestions of the students. Absolute integrity with a dedication to academic and research duties must be maintained. There should be a degree of self-governance necessary for effective decision making by institutes of higher education regarding their academic work standards, management, and related activities. Institutions should prepare the policies on all significant areas of functioning and implement them in the true sense. The organizational structure of the institute should encourage responsiveness and enforce accountability. **Managerial autonomy:** The autonomous institutions should be highly involved on parameters such as branding of institute among students and employers, ensuring career progression through training and development, restructuring the organization structure according to changing needs, formulating and implementing evaluation criteria for quality education, satisfaction of employees, mobilizing the resources of stakeholders to achieve the objectives, missions and vision, attraction for talented faculty members for accepting challenges, rewards and recognition for unique achievements of students, faculty members and staff members, setting benchmarks in different areas of functioning, deploying and redeploying the internal resources to achieve the objectives, timely obtaining new and innovative projects, framing and modifying policies according to changing needs, accreditation of programmes and institute from national and international agencies, generation of resources to meet the growing requirements, extension activities for masses related to areas of functioning under corporate social responsibility, as implementation of collaborative projects with stakeholders, collaborative projects with national and international agencies. **Administrative Autonomy:** The autonomous institutions should behighly involved on parameters such as transparency in the selectionprocess at all levels, appoint people for various duration and purposes, evaluating the performance at all levels based on objective criteria, undertaking career development and career progression decisions for various cadres, selection of external and internal experts for various funded projects, design and use manual/guidelines for planning, implementation, and evaluation, the appointment of technical and ministerial staff for funded projects, deploying and redeploying people as per requirements, and deciding rewards and punishment. **Financial Autonomy:** The autonomous institutions should be highly involved on parameters such as an audit of financial transaction regular as well as under project, providing scholarships and financial incentive to students, providing financial rewards to meritorious students, dependence on government funding, discrimination in the fee paid by various categories of the students, decide and give financial rewards to good performers, generating funds to promote innovations, research, and motivational teaching, deciding the fee for different programmes for students, adopting processes of deploying and redeploying funds based on the priority, generating funds to establish new infrastructure to offer new programmes, increase in state funding, imposing financial penalties on students, teachers, and clients, involving alumni for generating funds and furthering financial activities, decentralization of financial powers. **Implementation of autonomy at institute level** Institutes should work in a transparent manner through their actions. Institutes should have well-designed management systems and processes. The faculty members should have the flexibility to do experimentation. The power to act without external control is essential. Internal decision making with a high degree of transparency should be promoted. The institute should strive to improve in all areas of functioning. The institute should establish a self-monitoring mechanism to ensure the effectiveness and efficient implementation of educational programmes, researches, and services. The institutions should prepare an institute development plan in the context of NEP 2020.

Documentation	The institute should create a system for documentation and encourage documentation of experiences in all areas of functioning of the institute at all levels. The documentation should be done for strong and direct experiences.
Research and innovation cell	The institutions should create a research culture for undertaking domain-specific and educational research studies. The autonomous institutions should be involved in undertaking high-quality technology-related research studies (sponsored/consultancy or otherwise), and academic publications, undertaking high-quality system improvement related research studies such as need analysis, tracer study and impact study, and patent filing by faculty members.
	Domain-specific research: The autonomous institutions should be intensively involved in conducting researches on topics of importance (complex problem-solving projects, prototypes, research on emerging and new technology, product development) to industry and society. They should integrate research activities with curriculum implementation. These research studies may be sponsored, consultancy, or self-initiated. Institutes should conduct domain-specific research studies on real-life problems. They should also undertake research studies on improving the quality of education. Research is a crucial element of quality education. Therefore, planned efforts should be made to increase the number of researches and their quality. Provide adequate research facilities to the institute where the faculty members have integrity, honesty, and competency to undertake research studies. Treat all institutes in a similar manner.
	Educational research: The autonomous institutions should encourage faculty members to conduct educational research studies such as need analysis, action research, tracer study, and impact study to improve the effectiveness and efficiency of the educational systems. These studies will be helpful in bringing innovations in educational approaches.
Industry liaising and training and placement cell	The institute should use strong mechanisms to collaborate with industry and organizations for summer training, internship, entrepreneurship, higher studies, industrial training, employment, and professional ethics and values.
	The institute should encourage departments to become members of professional societies and regularly implement their activities for the overall development of the students and teachers.
	The industry and other major stakeholders should be involved right from the policymaking to the placement of students for the job. So that student development will be focused on learning, skills, and innovation.
Entrepreneurship development cell	The institute should develop entrepreneurship skills in the students using various approaches such as interaction with industry, motivational talks, preparing business plans, intensive training, and the like.
Mentoring, coaching, guiding, and counseling cell for students	Teachers should professionally mentor, coach, guide, and counsel the students for their career, promoting self-learning, collaborative and cooperative learning among students. Students should be able to know their potential, develop it and harness it for career development. They should develop learning to learn and thinking to think skills.

5.4. Product and services ring: Framework and Strategies

The autonomous institutions should provide quality graduates, produce quality research studies and build a good image among the stakeholders for getting admission of students, funding for research studies, and support for institutional services. This is possible through rendering quality products and services.

Product and services	Strategies
Publications	The institute should encourage the publication of all types of achievements such as research reports, research papers, books, manuals, guideline documents, academic innovations, case studies, project reports, proceedings, video programmes.
	The institute should publish journals, magazines, newsletters, case bank, reports, book chapters on its website.
	Institute website: The institute should develop an interactive website to provide information to different stakeholders, address the query, receive and analyze the feedback, grievances, and suggestions.
Continuing education	**Continuing education programmes:** The autonomous institutions should offer continuing education programmes for faculty members of other institutions and professionals working in the world of work situations. These programmes will result in developing institutional capacity, increasing utilization of institutional resources, building brand, generating revenue for the institute, and increasing reach.
Brand building	The institute should develop its core competence and an adaptable brand strategy should be implemented for branding its academic programmes, researches, and services. The institute development plan should incorporate a branding strategy. The autonomous institutes should create their own brand and they should be known for that unique image. The uniqueness may be created in educational programmes, research, and services. The educational leaders, faculty members, and students should be encouraged to project the unique achievements of the institute on various forums. The website of the institute should communicate the unique image of the institute.

Corporate relationship cell	**Collaboration and cooperation:** The autonomous institutions should collaborate with industry, government, professional societies, and sister institutions to produce a synergetic effect using strengths and covering up the weaknesses. They should grab opportunities for the benefit of both parties.
National mission cell	The government of India is implementing national missions for the benefit of the masses, the autonomous institutes should contribute effectively and efficiently using their resources, students, and teachers. The missions are digital India, skilled India, Swachh Bharat, self-reliant India.
Alumni cell	The autonomous institutions should take the advantage of institute alumni for creating an interface with industry for various purposes such as curriculum development, curriculum implementation students' projects, consultancy, organizing conferences and seminars, placement.
Services cell	The autonomous institutes should offer a wide spectrum of services to industry, organizations, and community for achieving various common goals. The services are domain-specific services where the institutions have core strengths or general services to use the resources for the benefit of the stakeholders.

6. Suggestions

Aspiring HEIs for innovations, reforms, and change should use the framework and strategies suggested in this paper to facilitate, supplement and complement the innovation process. They should create a framework that is comparatively permanent and temporary according to the requirements of the stage of innovation. The framework and strategies should be used by the institutions which are autonomous and wants to add value to their product and services and satisfy the beneficiaries and stakeholders. Therefore, this study stated that the framework and strategies will prevent the barriers to innovation and tap the full potential of factors pro to innovation. Moreover, the designed framework and strategies should be implemented to create innovative academic and research culture in the institute.

Conclusion

This study is aimed to evolve a holistic framework and strategies for achieving, quality, accreditation, and autonomy. Therefore, an exploratory qualitative study has been reported in which 754 respondents working in higher technical education institutions. The proposed four rings are described as: The innermost ring is a governing ring that is responsible for the professional governance of the institute. The second ring is the capacity-building ring which is answerable for capacity-building development and creating an innovative culture. The third ring is a functional ring that is responsible for implementing the innovations, reforms, and changes in the institute as per the national education policy 2020. The fourth ring is the product and service ring which is accountable for the interface between the institution and the external environment. In a result, it is mentioned that the institute should revise the curriculum as per industrial developments which have practical-based courses with 80% practical and 20% theory. The reform-oriented institutions are provided strengths by these four rings to obtain accreditation and autonomy and sustain it. The strategies for each ring are suggested in the context of the National Education Policy 2020. In the end, it is reported with encouraging suggestions to improve the framework and strategies for effectively & efficiently implementation of the innovations in the institutes.

Authorship Contribution

The author was the principal investigator for conducting the study.

Conflict of Interest

There is no conflict of interest.

Declaration

It is an original data and has neither been sent elsewhere nor published anywhere.

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