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SUSTAINABLE CAMPUS LIFE FOR STUDENTS OF HIGHER EDUCATION INSTITUTES (HEIs)

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Background:

This literature briefs about the educational system in pre and post British period and the educational journey till date. The first National Policy on Education (NPE) was promulgated by the Prime Minister (PM) Indira Gandhi in 1968, the second by PM Rajiv Gandhi in 1986, and the third by PM Narendra Modi in 2020. The National Education Policy (NEP) 2020 aims to increase the gross enrolment ratio (GER) in higher education including vocational education. It also studies the Goal 4 (SDG4) of the 2030 agenda for sustainable development (SD).

Objective:

The aim of the study was to analyse the literatures on sustainable development campus by creating a green environment, student's perspective to maintain a vibrant campus and to study the various assessment indicators to measure the sustainability of a HEIs campus.

Materials and Methods:

The study of literatures draw attention on various methods, techniques, tests applied by the authors to measure the sustainability of a campus. The study is objective and highlights the questionnaire conducted by authors among campus administrative staff and students for data collection. The data was run on statistical tools like SPSS to get results.

Results:

The total population is different for each case, in this study. The demographic results based on gender, age, are also derived by the authors.

Conclusion:

The study has found that the sustainable development in educational campuses are a gradual process that involves stakeholders, committees, teaching and non-teaching staff along with students who have to actively participate to implement the policies pertaining to the maintenance of sustainability. The gap to find out the hassles in implementation of sustainable policies need to be studied more with proper directions to overcome those difficulties.

Key words: Sustainable green campus, student's perception, indicators to implement, assess, measure SD service quality.

Abstract

The articles have been taken from the NEP 2020, UGC guidelines, few journals of cleaner production that studies to understand the aspects of SD in HEIs. This literature details about the educational system in pre and post British era and the modifications and transformations in the journey of educational policies, till date. The first National Policy on Education (NPE) came into existence in 1968, the second NPE in 1986, and the third in 2020. The National Education Policy (NEP) 2020 aims to focus on school education and higher education along with other professional development programs, student related policies. The literature studies the documents, policies and materials related to SD in HEIs and students perception with regard to difficulties in implementing SD in education and vibrant campus, it analyses the literatures green environment, the various assessment indicators to measure the sustainability of a HEIs campus. The study of literatures draws attention on various methods, techniques, tests applied by the authors to measure the sustainability of a campus. The implementation of SD in educational campus require active involvement of stakeholders, committees, teachers, administrative staff and students. The study need to find out the best practices and its role in higher technological education service operations.

Introduction

Education Policy in Pre-Independent India

The education policy in pre-independent India could be divided into two eras, i.e. Pre-British and the British period. The British Period with available literary sources being the Rigveda, the Aranyakas, the Upanishads, the Epics and the Puranas for educational policies in ancient India. The Aryans in II B.C. made an attempt in formulating an education policy in India and it was adhered to by the natives called 'Dasyus'. After the Vedic period, the kingdoms of powerful kings gave rich donations and lands to promote the interests of higher education, they also redefined and reconstructed the education system in India through universities in ancient India, i.e. Nalanda and Taxila, were also known for their scholarship. The Mughals tried to spread Islamic education in India by allowing students to acquire education at a 'Madrasa – school for higher learning' and all higher education was imparted in Arabic by Moulvis, 'Maktaba – a primary school' often attached to a mosque or run in private houses and both types of schools were generally attached to monasteries. The formation of a new language called 'Urdu' evolved. The major objective of education was religion for both Hindu and Muslim schools of the ancient period, however for few years education was monopolized by 'caste' and 'gender' groups and confined to a very small portion of the social hierarchy of population. The pursuit of knowledge (Gyan), wisdom (Pragya), and verity (Satya) was always considered in Indian study and gospel as the loftiest mortal thing. Ancient institutions such as Takshashila, Nalanda, Vikramshila, Vallabhi, set the highest standards of multidisciplinary teaching. The missionaries played a great work in the field of education under the British rule but it was linked with the spread of Christianity and their religious gospel, till the end of 1834. A pro-anglicist called Lord T.B. Macaulay came to India made a vigorous plea for spreading western education through the medium of English (Gosh 2007). Macaulay rejected the claims of Arabic and Sanskrit as against English and thus attracted resentment among Indians. The Sargent Commission (SC) was the last major commission in the British period.

Education Policy in Independent India

The SC power was transferred to the Central Advisory Board of Education (CABE) in Independent India. Maulana Abul Kalam Azad, India's first Minister of Education (MoE) launched various programs to address the problems of illiteracy in rural and urban India by having strong control over education to modernize and to have a uniform educational system. CABE decided to set up two Commissions to deal with university education and secondary education. Thus the Union government established the first commission called University Education Commission (UEC) in 1948–1949 under the chairmanship of Dr. S. Radhakrishnan, to report on the status and improvements of Indian university education, the Secondary Education Commission (SEC) was set up in 1952–1953 under the chairmanship of Dr. A. Lakshmanaswami Mudaliar to report on school education status. Both commissions presented their reports in 1953 that gave a view about the educational problems and suggested diversification and establishment of multipurpose courses in high school, proposed a uniform pattern throughout Indian education, and recommended setting up of technical schools. The University Grants Commission (UGC) was established in 1956. National Council of Educational Research and Training (NCERT) as an autonomous organization to advise the Union and state governments on formulating and implementing education policies. Jawaharlal Nehru, India's first PM, sponsored the development of high-quality scientific education institutions such as the Indian Institutes of Technology (IIT).

The GOI of PM Indira Gandhi announced the first NPE in 1968 on the report and recommendations of the KC. This policy laid emphasis on a "radical restructuring" and equal educational opportunities, compulsory education till the age of 14 as laid down by the Constitution of India, specialized training and qualification of teachers, learning of regional languages, the instruction of the English language, learning of Hindi to be encouraged uniformly to promote a common language for all Indians, teaching of the ancient Sanskrit language, in order to achieve national integration, cultural and economic development with an educational spending increase to 6% of national income.

The GOI led by Rajiv Gandhi introduced a new NPE in 1986 that emphasized on the removal of disparities and to equalize educational opportunity especially for Indian women, Scheduled Tribes (ST) and the Scheduled Caste (SC) communities. To expand scholarships, adult education, recruitment of more SC teachers, incentives to poor families, development of new institutions, a "child-centered approach" and introduced "Operation Blackboard" in primary schools, expanded the open university system with the Indira Gandhi National Open University (IGNOU) in 1985, the creation of the "rural university" model based on the philosophy of Mahatma Gandhi, to promote economic and social development in rural India with an expectation to spend 6% of gross domestic product (GDP) on education.

The NPE 1986 was modified in 1992 by PM P. V. Narasimha Rao government and PM Manmohan Singh in 2005 introduced a new policy based on the "Common Minimum Programme (CMP)" of his United Progressive Alliance (UPA) government. The 1992 Programme of Action (PoA) of NPE 1986 envisaged common entrance examination for admission to professional and technical studies like for admission to Engineering and Architecture/Planning programs, GOI vide 2001 Resolution laid down three exam schemes, i.e. JEE, AIEEE, SLEEE & AIEE to maintain professional standards and to solve problems of overlaps and reduce physical, mental and financial burden on students and their parents due to multiplicity of entrance examinations. In 1993-94 the District Primary Education Programme (DPEP) aimed at fulfilling the goal of universalization of primary education. Sarva Shiksha Abhiyan (SSA) or the "education for all" movement in 2000-2001 aimed at universalizing elementary/primary education and creating an ideal system of education. Right to Education Act (2009) emphasizes free and compulsory education for children who are in the age group of 6 to 14 years, education as a fundamental right of every child, schools have to reserve 25% of seats to children of socially disadvantaged groups, no child shall be held back, expelled or required to pass a board examination until the completion of elementary education, special training to drop outs, 70% expenses to be borne by central and 30% expenses by state in order to implement the act.

In 2019, the Ministry of Human Resource Development (MHRD) released a Draft NEP 2019 that focused on reducing curriculum content to enhance essential learning, critical thinking and more holistic experiential, discussion-based and analysis-based learning, revision of the curriculum and pedagogical structure from a 10+2 system to a 5+3+3+4 system design in an effort to optimize learning for students based on cognitive development of children. A new NEP was approved on 29 July 2020 that envisages several changes to the being Indian education system and it was proposed to be introduced in India till 2026.

Sustainable Development highlights from Principles of NEP 2020

The purpose of the education system is to develop good human beings with rational thought, action, compassion, empathy, courage resilience, scientific temper, creative imagination, ethics, values, productive, contributing citizens, a system where every student feels welcomed and cared for, safe and stimulating learning environment, learning experiences are offered, good infrastructure, resources conducive to learning are available and seamless integration and collaboration across institutions and across all stages of education. The fundamental principles that will guide both the education system at large, as well as the individual institutions within it are:

Student Activity and Participation

Pupil are the major stakeholders in the education system. Vibrant campus life is essential for high-quality teaching-learning processes. Students should participate in sports, culture/arts clubs, eco-clubs, activity clubs, community service projects, there shall be counselling systems for handling stress and emotional adjustments, scholarship, medical and hostel support to be arranged to students from rural backgrounds.

Basic infrastructure and facilities

Students should be provided clean drinking water, clean working toilets, blackboards, offices, teaching supplies, libraries, labs, and pleasant classroom spaces and latest educational technology.

Goal 4 (SDG4) of the 2030 Agenda for SD

The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for SD, adopted by India in 2015, envisions on equal quality education, learning opportunities, integration of environmental awareness in curricula, transparent disclosure of all financial, academic, and operational matters in the assessment of HEIs to achieve SD Goal 4 (SDG4) of ensuring free, equitable, and quality primary and secondary education for all children.

Multidisciplinary curricula

The curricula of HEIs shall include credit-based courses in the areas of community engagement service, environmental education (climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living), value-based education {development of humanistic, ethical, Constitutional, and universal human values of truth (satya), righteous conduct (dharma), peace (shanti), love (prem), pacifism (ahimsa), scientific temper, citizenship values, and also life- skills assignments (in seva / service and participation in community service). Global Citizenship Education (GCED) is helpful to overcome contemporary global challenges as it will empower learners to understand global issues, actively promote more peaceful, tolerant, inclusive, secure, and sustainable societies.

Internships/Apprenticeship/Trainings

The students of HEIs will be provided with opportunities for internships with local industry, businesses, artists, and crafts persons, research internships with faculty, other research institutions, and practical engagements through learning to improve their employability. A lively campus life for students is a component of good teaching-learning environment, judicious assessment systems, and fair and equitable treatment to all, academic co-curricular activities through field training, job placement activities, educational excursions, and summer apprenticeships / externships.

GOI Initiatives to implement SD in education

Clean and renewable energy, water conservation, sustainable farming, environmental preservation, and other green initiatives also contribute to SD in education. The UGC and AICTE has launched many educational promotional programmes as: Samagra Shiksha, an integral scheme for School Education as a Centrally Sponsored Scheme, Rashtriya Uchchatar Shiksha Abhiyan (RUSA), Scheme for promotion of Academic and Research, Collaboration (SPARC), Global Initiative for Academics Network (GIAN), Impacting Research, Innovation & Technology (IMPRINT), Technical Education Quality Improvement Programme (TEQIP), Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), National Digital Library, campus connect programme, Uchchatar Avishkar Abhiyan (UAA), Unnat Bharat Abhiyan (UBA), Impactful Research in Social Sciences (IMPRESS) along with implementation of ranking and assessment framework to improve the quality of education like Atal Ranking of Institutions on Innovation Achievements (ARIIA), National Institutional Ranking Framework (NIRF). UGC has issued safety guidelines for students at various areas of campuses like hostels, playgrounds, cafeteria, library, activity spaces, security personnel or technological device based entry to bonafide students, vibrant campus life, students services centre (SSC), physical fitness and activity programs.

Physical fitness activities

The physical fitness activities as part of SD will strengthen the mental status of students and against different kinds of stress, academic pressure, peer-pressure, career concerns, depression and behaviour issues they face with the help of proper guidelines for promotion of physical fitness, sports, students' health, welfare, psychological and emotional wellbeing at HEIs that has standardized, systematic arrangements to provide support to rural students, female students, students from divergent cultural backgrounds, and special needs students.

Summary

Mridual et.al., describes the Green Campus Initiatives as SD at HEIs from the perspective of students' perceptions by studying green campus initiatives set up at four Brazilian universities to identify whether the Green Campus Initiatives is a viable strategy for disseminating SD ? The quantitative-descriptive study was based on data collected in a survey involving students from four Brazilian universities, with a sample of 1013 respondents. The data were examined using multivariate statistical ways. The results show that SD strategies in HEIs explain around 18% of the students' level of proactivity and 27.7% of their knowledge and awareness regarding SD. The findings of this study may aid at implementing environmentally sustainable practices at universities based on student perceptions.

Yasal et. al., describes about a measuring tool called "Sustainable Service Quality" to measure two independent research areas i.e. sustainability and service quality in HEIs, showing no need for an integrated approach that bridges these areas.

Paulo et.al., describes in their lessons derived from the nine year study on sustainable strategy in HEIs that HEIs have the vision, the knowledge and the power to lead this transition, and to induce the changes in new paradigm. Thus sustainability values required to be added in HEIs' mission, vision and practice. The author describes about 20 important lessons for the implementation of sustainability strategies in HEIs based on his findings and results.

Walter et.al., elucidates in their article about the role of planning in implementing sustainable development in HEIs. The study asks the reader to perceive how planning may help HEIs in implementing SD? The paper describes about the survey to understand that the role of planning is necessary for improved knowledge, sound decision-making, to know sustainability in a science and technology context, and the motivation towards transformation. The literature focuses on the fact that universities are lacking concrete plans related to SD.

Renata et.al., states in their literature about students' perceptions from green and non-green universities for an effective sustainability at HEIs with an objective to compare students' attitudes towards sustainability in Vytautas Magnus University (VMU) a non-green university and Kaunas University of Technology (KUT) a green university.

Alfred et.al., states in their article about the need for assessment of service operations of the SD in HEIs. The literature studies the assessment of SD at seven higher technological education institutions in Brazil by discussing about a test that helps to assess the SD procedure in higher education. The authors named the model as Sustainability Assessment for Higher Technological Education (SAHTE), consists of 134 criteria that cover five aspects: 1) Governance/Policies, 2) People, 3) Food, 4) Energy/Water, 5) Waste / Environment. This structure is based on international frameworks and standards as GRI, AISHE, SAQ, Green Metric, Green Report Card, and Campus Ecology. The case studies were based on direct observations and document analysis, the data was collected from 170 interviews to faculty, staff, and students, and they show the lack of governmental incentives toward sustainability in HEI.

The dissemination of the concept of SD by HEIs defines awareness to balance between the environment, the economy and society as HEIs acts as a bridge between scientific knowledge and common sense. Green Campus Initiatives (GCI) models are focused on meeting the goals set by the United Nations Sustainable Development Goals (UN SDGs) and require interaction between education and awareness (people), buildings/environment (place), and management (processes) at HEI and these can be achieved by SD guidelines for universities as:

- Leadership in planning, implementing and managing sustainability policies;
- Sustainable education and learning;
- The implementation of green technologies within a wide range of campus activities;
- The preservation of ecosystems near to the institution;
- Transdisciplinary studies and outreach programs;
- Cooperation with other universities;
- Development of skills and awareness of those who work with SD activities;
- A campaign to develop cultural awareness and sustainable actions among students.

The concept of a Green Campus (GC) is holistic, when environmental awareness and action become an integral part of the daily activities and focuses on the environmental, economic and social issues of HEIs. A sustainable university is recognized by the connection between sustainability initiatives and teaching, research, outreach and other campus structures.

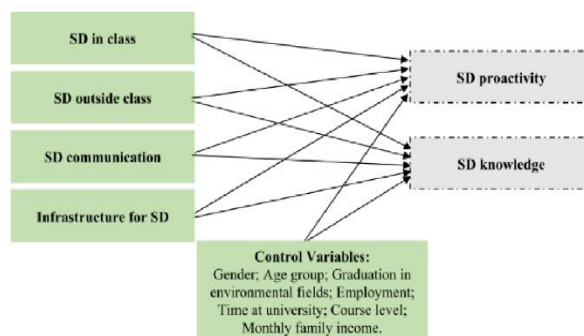


Fig. 1. Research framework.

According to the author, **Fig. 1** represents the research framework, with the dependent, independent and control variables and shows the influence of the control variables.

The conceptualization of SD are based on Economic, Social and Environmental pillars. The study on SD will help to draw some important lessons to incorporate sustainability values (SV). Along with proper planning, the perpetration of a successful sustainability strategy is dependent on a wide range of rudiments which include infrastructure and capacity building structures. The study of experts displays that a sustainability strategy is characterized by a five-stage process assessment, planning, perpetration (implementation), evaluation, and reassessment / revision.

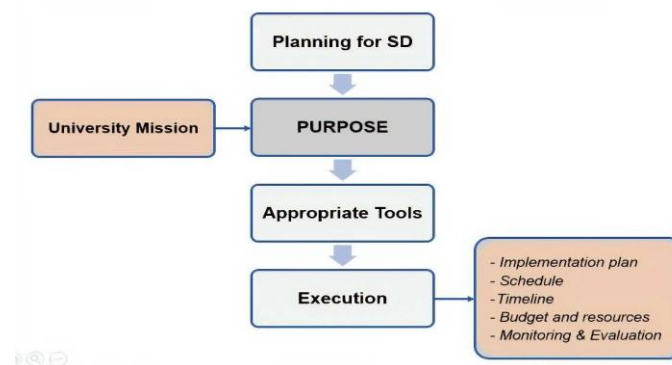


Figure 2: An Overview of a Planning and Implementation Process and represents that SD has become the driving factor to mission in planning.

HEIs need to integrate SD through tools and techniques from strategic management planning to get accrued long term advantages and identify savings and benefits throughout its management and operations that allows for the long-term in terms of health, savings and growth. The sustainability performance of the HEIs were emphasized during UNESCO Education for SD 2005-2014 and sustainability aspects became important determinants for university rankings. The objective of the study is to focus on the attitudes of students considering university sustainability in KTU and VMU. The survey was conducted, and differences in the scores of the campus sustainability, environmental information, and the university's role in sustainable development between green and non-green universities were tested and assessed by applying regression analysis. The inclusion of the whole community participation is limited due to structure, lack of information and limited access to information and data of HEIs. Universities can be channel to disseminate information with stakeholders through internet tools and resources, web-based interactions, seminars, meetings to deliver the sustainability message. The Tbilisi declaration was one such occasion wherein importance of sustainability in higher education was declared in international conference sponsored by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Environmental program (UNEP). The sustainability auditing instrument as assessment models have been developed specifically for higher education by UGC, AICTE, AISHE, Sustainability Tracking, Assessment and Rating (STARS), Green Metric, and Green Report Card.

Methods, Results and Discussions

The study of all literatures for SD in HEIs was quantitative and data was collected from university students and the questionnaire (descriptive and rating) was shared online to the students. The participants were given the prompts and asked to rate their agreement to them using a Likert scale. The responses to the prompts were measured using survey, Likert scale, Analytical Hierarchy Process (AHP), Exploratory Factor Analysis (EFA), t-tests, Chi-square, Survey Monkey, Factor analysis, Kaiser-Meyer Olkin and Bartlett's test results, assessment model named Sustainability Assessment for Higher Technological Education (SAHTE) based on frameworks and models for sustainability assessment: AISHE, STARS, Green Metric, Green Report Card and Campus Ecology. SAHTE uses binary questions similarly as Green Metric and STARS to produce an objective view of Sustainability practices adoption. The scale proposed to measure SD quality is Sustainable Service Quality (SusServQual). The "Pythagorean Fuzzy AHP (PFAHP)" method was used to evaluate the situations where subjectivity and ambiguity are important.

The study intends to search answers for the following questions: How were sustainability practices implemented? And what were the results? What was the importance of reporting in the process of implementing sustainability plans? How were academic behavioral changes promoted? Using Top-down or bottom-up approaches of SD in HEIs, a study approach model in Fig.1, was developed based on survey conducted to find results of questions: To which extent do universities consider sustainability planning? What is the importance afforded to sustainability planning? Are current structures and frameworks well developed? The questionnaire is comprised of four main constructs: i) campus sustainability, which reveals the possibilities for students to behave in a more environmentally friendly mode at the university; ii) information, which shows the possibilities of obtaining environmental information within the university iii) university's role in sustainable development, which reveals important aspects regarding a sustainable university; and iv) student involvement in sustainability. A linear regression model was applied to evaluate the determinants of students' involvement in sustainability such as campus sustainability, environmental information, the university's role in sustainable development, attitudes to university' self-presentation as green, as well as variables of gender and university.

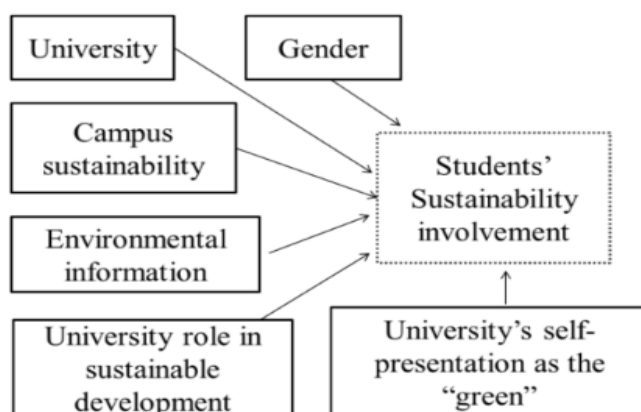


Fig. 1. Study approach model.

The results indicate that the university students have an excellent recognition of SD and five dimensions emerged as: (1) Services to students, (2) Physical means, (3) Responsiveness, (4) Natural resources, (5) Environmental sensitiveness. They developed hypotheses to identify whether there was a difference between demographic characteristics (gender, ethnicity, age, qualification) as differences were there in the two samples, such as social, economic, institutional conditions.

Institutional Framework of UMinho (University of Minho), has the mission “to generate, disseminate and apply knowledge, based on freedom of thought and plurality of critical thinking. PRME (Principles for Responsible Management Education) focuses on purpose, values, method, research, partnership and dialogue and aims at transforming academic institutions by adding values of sustainability and promoting a “true paradigm change”, and not only “green touches”. For smooth implementation of SD program, finances and resources are required.

Conclusion

NEP2020 has been unveiled, with lot of thought process from various officials and GOI. The education starts at the grass root; school level goes through the graduate and even higher level of education with multidisciplinary, holistic and broad-based education, emphasis on vocational education, at levels of school, higher education and other areas, specifically professional education. At school level, the old 10+2 system shall be replaced with new 5+3+3+4 with a single nomenclature, “University,” shall prevail. Multiple linear regression and influence analysis was used to measure the impact of GCIs at HEIs on students’ SD awareness and proactivity. A sustainable university seeks academic excellence, tries to incorporate human values, uses sustainability practices in teaching, research, community outreach, waste and energy management, land planning and land use. Thus this article concludes with a quote from Owens and Legere (2015, p. 382): “what this means for policymakers, politicians, researchers, scholars, campus administrators, faculty and staff is clear: the work of informing the next generation about sustainability is not over. In some cases, it may have just begun.” The success of GCI depends on long-term strategic planning and sustainability, higher education, and service quality are three important fields by themselves in academia. The SusServQual scale can be evaluated by academics authorities, managers and practitioners of HEIs to measure students’ perceptions regarding sustainable campus services. The common limitations for SD in HEIs are (1) scope, (2) design and validity, (3) statistical solidness, (4) data quality, (5) standardization. SD implementation also focuses to create minimum waste and pollution, minimum damage to the environment, importance of planning to benefit from the ecological, social and economic aspects of SD and planning with all actions, targets, outcomes, responsibilities, timelines and a management approach. The limitation in size of the sample of this study that does not allow an extrapolation of its findings to all universities. The environmental information, green initiatives and campus sustainability are factors in which students’ involvement is necessary for SD.

Future research is required to analyse universities with longer sustainability experiences from the perspectives of students and from other academic community members. Future research should perform a cross-country analysis, evaluating development of the countries due to implications of SD in HEIs. Students’ role in implantation of SD should be researched more and they should spread environmental information via lectures, and actively participate in vibrant campus sustainability. The lack of SD incentives from government impedes and hinders the implementation of green offices. SAHTE model is being developed and used to assess sustainable practices in service operations of HEIs. Future research should be on SAHTE model applied by various HEIs and its implications should be measured to find results of SD in education.

Declaration by Author

The article has been constructed to explain a declared and published National Education Policy NEP2020. The author has reviewed various literature on SD in HEIs as one of the agenda of NEP 2020 and want to declare that the content from the NEP2020 and other articles have been studied and framed to construct this study explicitly summarizing the main points.

Abbreviations

| | |
|-------------|--|
| HEIS | Higher Education Institutes |
| NPE | National Policy on Education |
| PM | Prime Minister |
| NEP | National Education Policy |
| GER | Gross Enrolment Ratio |
| SDG4 | Studies the Goal 4 |
| SD | Sustainable Development |
| SC | Sargent Commission |
| CABE | Central Advisory Board of Education |
| MoE | Minister of Education |
| UEC | University Education Commission |
| SEC | Secondary Education Commission |
| UGC | University Grants Commission |
| IEC | Indian Education Commission |
| NSE | National System of Education |
| NCERT | National Council of Educational Research and Training |
| IIT | Indian Institutes of Technology |
| ST | Scheduled Tribes |
| SC | Scheduled Caste |
| IGNOU | Indira Gandhi National Open University |
| GDP | Gross Domestic Product |
| CMP | Common Minimum Programme |
| UPA | United Progressive Alliance |
| POA | Programme of Action |
| DPEP | District Primary Education Programme |
| SSA | Sarva Shiksha Abhiyan |
| RTI | Right to Education Act (2009) |
| MHRD | Ministry of Human Resource Development |
| GCED | Global Citizenship Education |
| RUSA | Rashtriya Uchchatar Shiksha Abhiyan |
| SPARC | Scheme for Promotion of Academic and Research, Collaboration |
| GIAN | Global Initiative for Academics Network |
| IMPRINT) | Impacting Research, Innovation & Technology |
| TEQIP | Technical Education Quality Improvement Programme |
| SWAYAM | Study Webs of Active-Learning for Young Aspiring Minds |
| IMPRESS | Impactful Research in Social Sciences |
| ARIIA | Atal Ranking of Institutions on Innovation Achievements |
| NIRF | National Institutional Ranking Framework |
| SSC | Students Services Centre |
| SAHTE | Sustainability Assessment for Higher Technological Education |
| HEIS | Higher Education Institutions |
| UNSDGS | United Nations Sustainable Development Goals |
| GC | Green Campus |
| VMU | Vytautas Magnus University |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNEP | United Nations Environmental Program |
| AISHE | Auditing Instrument for Sustainability in Higher Education |
| STARS | Sustainability Tracking, Assessment and Rating |
| SUSSERVQUAL | Sustainable Service Quality |
| EFA | Exploratory Factor Analysis |
| PFAHP | Pythagorean Fuzzy Ahp |
| AHP | Analytical Hierarchy Process |
| UMINHO | University of Minho |
| PRME | Principles for Responsible Management Education |
| CPI | Consumer Price Index |

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