

Regional Contribution of IGNOU on Gross Enrollment Ratio in Higher Education: A Case Study of Sikkim (2001–2024)

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Abstract

The study examines the transformative role of the Indira Gandhi National Open University (IGNOU) in enhancing the Gross Enrollment Ratio (GER) in higher education in Sikkim from 2001 to 2024. It examines enrollment trends, IGNOU's alignment with the National Education Policy (NEP) 2020, and its transformative role in enhancing higher education accessibility through Open and Distance Learning (ODL). The data from IGNOU Regional Centre Gangtok reveals significant enrollment growth, with 50,683 fresh admissions and 40,508 re-registrations during the study period of 24 years, totalling 91,191 learners. The analysis identifies distinct phases of growth, including peak enrollment in 2011 and a stabilization period post-2016. These trends demonstrate the effectiveness of the IGNOU ODL model in overcoming geographic and economic barriers recognized as unique challenges faced by remote regions like Sikkim, thereby bridging educational gaps and promoted inclusivity. IGNOU's initiatives, such as the establishment of Learner Support Centres (LSCs) and the provision of flexible, affordable education, have directly contributed to increase GER in the state. Through affordable programmes and ICT-enabled learning, IGNOU has democratized higher education, particularly benefiting women, working professionals, and marginalized communities. These initiatives resonate with NEP 2020 goal of achieving a 50% GER by 2035. This study highlights the pivotal role of ODL in addressing disparities in higher education, showcasing IGNOU's tailored interventions in Sikkim as a model for remote regions. The findings underscore the potential of ODL systems to meet India's GER goals and contribute to equitable human capital development. The study offers actionable recommendations, including enhanced digital integration and local partnerships, to sustain and expand ODL's impact on higher education in underserved regions like Sikkim.

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1. INTRODUCTION

The higher education is a cornerstone for social and economic development, equipping individuals with knowledge and skills to contribute effectively to society. In India, however, access to higher education remains uneven, particularly in remote and underserved regions, where geographic barriers, socio-economic constraints, and cultural factors hinder progress. The Gross Enrollment Ratio (GER), a critical metric for assessing higher education accessibility, highlights this disparity. National averages for GER often mask significant regional inequalities, with remote regions like Sikkim facing unique challenges. Addressing these disparities is critical to fostering equitable development and achieving the ambitious targets set by India's New Education Policy (NEP) 2020.

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The hilly mountainous regions of the country characterized by its rugged terrain and dispersed population, epitomizes the obstacles faced by remote areas in achieving higher GER. The traditional educational institutions struggle to establish a presence due to logistical difficulties, limited infrastructure, and financial hardships among families. In some region, cultural attitudes toward education, particularly for women, further exacerbate these challenges. Such barriers necessitate innovative solutions to ensure inclusivity and accessibility. In this context, Open and Distance Learning (ODL) systems have emerged as transformative tools, offering flexible, affordable, and scalable learning opportunities. The Indira Gandhi National Open University (in short, IGNOU or university used hereafter inter-changeably), a premier ODL institution of India has been at the forefront of this educational revolution. Established in 1985, IGNOU is the largest Open University in the world, catering to over three million learners annually. It has played a pivotal role in democratizing higher education across India. By leveraging its extensive network of Learner Support Centres (LSCs) and incorporating technology-enabled learning, it has provided pathways for learners in remote areas to access quality higher education. With minimal eligibility criteria, affordable fees, and diverse programmes offerings, it has particularly benefited marginalized groups, including women, working professionals, and economically disadvantaged communities. The success of its model in bridging educational gaps underscores its relevance as a case study for understanding the role of ODL in enhancing GER in higher education.

While previous studies have explored the impact of ODL on educational outcomes in India, limited research focuses on its long-term effects in specific regions like Sikkim. The study seeks to address this gap by evaluating the transformative role of IGNOU in increasing GER in Sikkim over two decades (2001–2024). It examines enrollment trends, the alignment of IGNOU's initiatives with national education policies, and the challenges faced in sustaining educational accessibility.

By providing a comprehensive analysis of IGNOU's contributions, this research not only highlights the potential of ODL systems but also reinforces their critical role in achieving inclusive educational growth. Sikkim's case demonstrates that targeted interventions, combined with flexible learning models, can overcome systemic barriers and foster human capital development, aligning with India's broader socio-economic goals.

2. OBJECTIVES OF THE STUDY

The primary objective of this study is to evaluate the impact of IGNOU on the GER in higher education in Sikkim. By analysing enrollment trends and correlating them with GER data, this research aims to assess how IGNOU has contributed to improving access to education in the state. Accordingly, this study seeks to answer the following key questions:

- a) Examine the role of IGNOU's initiatives in enhancing accessibility to higher education in Sikkim.
- b) Evaluate the trends and patterns of fresh admissions and re-registrations under IGNOU's Regional Centre Gangtok from 2001 to 2024 and identify key phases of growth trends.
- c) Analyze the correlation between IGNOU's enrollment figures and its contribution to higher education GER in Sikkim over the study period.
- d) Assess the alignment of IGNOU's initiatives with government's education policies.

3. LITERATURE REVIEW

As IGNOU continues playing significant role in enhancing educational access through ODL initiatives, this study analyses and explores its role and contribution in increasing GER and higher education in Sikkim. To provide a critical examination of existing studies relevant to the research topic, a structured literature review is carried aligned with key components as furnished here-below.

3.1 Scenario of GER in Higher Education in India and Globally: The GER is a critical metric for assessing higher education accessibility and participation globally. The studies have highlighted the role of GER as a critical measure of higher education accessibility and quality. India, with its diverse socio-economic and geographic landscape, has faced significant challenges in improving GER. According to UNESCO (2021), global efforts to enhance GER have emphasized inclusivity and access, particularly for marginalized communities. The higher education in India has seen significant expansion in institutional capacity and student enrollment; however, the GER remains low compared to global averages. Gender parity in GER is progressing globally, but disparities persist in India, particularly in northern states (Deen, 2014; Chen, 2020). India's GER in higher education has witnessed steady growth, increasing from 18.8% in 2010 to 23.6% by 2016. However, it remains below the global average, highlighting disparities in access due to socio-economic, regional, and gender-based inequities (Kakkar, 2018). Studies by Mishra (2011) and Kumar and Singh (2020) show that government and institutional initiatives have significantly improved GER, particularly through ODL systems. Key barriers to improving GER in India include regional inequalities, lack of infrastructure in rural areas, and financial constraints. Studies emphasize the need for policies that address quality, inclusivity, and funding. Increasing government expenditure on higher education is crucial to achieving GER targets (Borthakur et al.,

2024; Joshi & Ahir, 2016). Innovative approaches such as leveraging technology and adopting machine learning for GER forecasting can guide policy decisions (Hussain et al., 2023).

3.2 Government Policies for Increasing GER in India: The Government of India has introduced several policies aimed at improving GER, such as the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) and scholarship schemes for economically disadvantaged groups. While, Higher Education Funding Agency (HEFA) focus on infrastructure, access, and equity in higher education, RUSA targets the establishment of higher education institutions in GER-deficient districts, with particular attention to marginalized groups (Vaishnavi, 2024). The NEP 2020 outlines a vision for increasing India's GER in higher education with an ambitious target of achieving a 50% by 2035. To widen access to higher education, this policy emphasizes inclusivity, integration of vocational training and skill development, flexibility in education delivery, and technological adoption to achieve this goal (Ministry of Education, 2020; Ahmad & Sikandar, 2022). Besides, it encourages public-private partnerships and the expansion of ODL to cater to underserved populations, particularly in remote and rural areas (Borthakur et al., 2024). IGNOU's alignment with NEP 2020, through its modular programmes and flexible learning paths, demonstrates its commitment to national goals (IGNOU, 2023).

3.3 Advantages of ODL in GER Improvement and Contributions of IGNOU: Studies by Bhattacharya (2017) and Roy (2015) demonstrate the effectiveness of ODL in reaching underserved populations and enhancing educational outcomes. The flexibility and affordability of ODL systems enable working professionals and women to pursue education by providing flexible learning opportunities, mitigating isolation through collaborative learning, bridging gender disparities, and addressing barriers like time and cost (Dzakiria et al., 2013; Ofoegbu, 2010; Appavoo et al., 2019; Ghosh et al., 2012; Ebabhi & Adewoyin, 2020). The integration of ICT tools in ODL has enhanced access and quality, though infrastructural gaps persist (Joshi & Ahir, 2019). Case studies by Sharma and Das (2018) and Mishra (2011) illustrate how IGNOU has addressed educational inequities through its innovative programmes and extensive network.

3.4 Accessibility Challenges in Remote Regions for Higher Education and Role of IGNOU: Access to higher education in rural and remote areas remains a challenge due to geographical isolation, limited infrastructure, including lack of internet connectivity, socio-economic barriers and constraints. The 12th Five-Year Plan emphasized regional equity but highlighted the need for stronger implementation strategies (Sharma, 2016). The ODL systems, particularly IGNOU has played a pioneering role in expanding higher education opportunities in India, promoting inclusive education and overcoming geographical and financial barriers. It has expanded access to higher education through flexible enrollment policies and regional study centers. These initiatives have helped overcome barriers like geographic isolation and limited local infrastructure (IGNOU, 2023; Darjee, 2024). Studies by Sharma and Das (2018) and Rai et al. (2020) highlight the importance of localized solutions, such as LSCs and ODL programmes, in overcoming these challenges. In this context, IGNOU has significantly contributed to increasing GER in India by democratizing access to higher education, especially for marginalized groups such as women, rural communities, and disadvantaged castes (Kour, 2013).

3.5 Role of IGNOU in Increasing GER in Sikkim: Before 1994, Sikkim had only three higher education institutions, viz. Sikkim Government College Tadong, Sikkim Government Law College, Burtuk, and Sikkim Institute of Nyingma Higher Studies, Deorali (Government of Sikkim, 2024). When IGNOU Regional Centre in Gangtok was established in 2000, State had only one private university, Sikkim Manipal University of Health, Medical, and Technological Sciences (Darjee, 2024). Accordingly, IGNOU has pioneered higher education in Sikkim and its Regional Centre Gangtok has played a transformative role in improving GER. By establishing LSCs in remote areas and offering diverse programmes, IGNOU has significantly contributed to educational access in the state and its initiatives, such as teacher training programmes and vocational education, have empowered local communities and enhanced GER (Bhutia, 2023; Darjee, 2024). The GER in Sikkim has steadily increased from 24.8% in 2009-10 to 53.9% in 2018-19, despite a dip to 24.3% in 2012-13 before recovering. This growth reflects rising participation in higher education and improved accessibility in the state (Chettri, 2022).

The review highlights that IGNOU's ODL has expanded educational opportunities and contributed to human capital development and a transformative impact on GER in India by overcoming barriers to access and inclusivity.

4. METHODOLOGY

4.1 Research Design: This study adopts a quantitative case study design to evaluate the effect of IGNOU on GER in Sikkim. The quantitative approach facilitates a detailed analysis of enrollment trends and their correlation with GER.

4.2 Data Source: The primary data source for this study is enrollment data obtained from IGNOU Regional Centre Gangtok, covering the period from 2001 to 2024. This dataset includes information on learners' enrollment and re-registration figures.

4.3 Data Analysis Tools

- (a) **Descriptive Statistics:** Used to identify trends in learners' enrollment over the years, providing a foundational understanding of IGNOU's growth in Sikkim.
- (b) **Correlation Analysis:** Applied to evaluate the relationship between IGNOU's enrollment figures and GER in the state.

4.4 Scope and Limitations

- (a) **Scope:** This study focuses exclusively on IGNOU Regional Centre Gangtok and its contribution on GER in higher education in Sikkim as a localized analysis.
- (b) **Limitations:** Isolating IGNOU's contribution, this study does not cover contribution and challenges of other educational initiatives in the state. Due to limited availability of the comparative GER data on higher education, it does not cover study prior to IGNOU's establishment in Sikkim.

4.5 Ethical Declaration: This research study is conducted by authors using data from their own office, using aggregated enrollment figures with numerical totals only without any personally identifiable information of students. It is carried out independently, without institutional influence on data analysis or interpretation, ensuring objectivity and academic integrity.

5 DATA ANALYSIS AND FINDINGS

5.5 IGNOU's initiatives in enhancing accessibility to higher education in Sikkim: IGNOU began its operations in Sikkim in 1991 with the establishment of a study centre at Nar Bahadur Bhandari Government College (formerly Sikkim Government College), Tadong, Gangtok. Recognizing the need for a more robust presence, IGNOU inaugurated its Regional Centre in Gangtok on December 7, 2000. This RC was established to enhance accessibility and provide comprehensive support services to learners across the state. As a sub-office of IGNOU, the RC Gangtok is responsible for coordinating and supervising the activities of its LSCs. It also acts as a resource hub for the delivery of academic programmes and learners' services. Since from its establishment, the RC Gangtok has become a critical node in university's network, catering to diverse learners, including working professionals, women, and marginalized communities (Darjee, 2024).

In order to ensure equitable access to education, IGNOU RC Gangtok established a network of LSCs across all districts of Sikkim. These LSCs serve as local hubs for academic and administrative support, offering services such as counselling, study material distribution, and examination coordination. Over the years, 26 LSCs were established in various locations, including urban and remote areas, to reach the maximum number of learners. However, due to changes in regulations and project-specific closures, the number of active LSCs has reduced to four regular centres at present, located in Gangtok, Namchi, and Gyalshing. Additionally, IGNOU has partnered with the Central Ministry of Skill Development & Entrepreneurship to establish IGNOU-MSDE Centres in industrial training institutes across the state. These centres focus on vocational and skill-based training, further broadening the scope of university's outreach. Through these initiatives, the university has ensured that higher education and skill development opportunities are accessible to learners in even the most remote corners of Sikkim. The flexibility of ODL programmes, combined with localized support through LSCs, has significantly contributed to bridging educational gaps and promoting inclusivity in the state (Darjee, 2024).

IGNOU as a people's university continues to benefit learners of the entire country in alignment with central government policies on higher education. Whereas, learners of Sikkim were specifically benefitted on account of such policies as listed but not limited to the followings:-

(a) **Fee exemption:** Under the SCSP (Scheduled Caste Sub Plan) and TSP (Tribal Sub Plan) of central government, the university introduced a fee exemption/reimbursement scheme in the year 2014-15 for Scheduled Caste (SC) and Scheduled Tribe (ST) students to enhance educational accessibility for marginalized communities. This scheme applied to freshly registered students in B.A., B.Com, B.Sc., BSW, BTS, and BCA programmes, as well as for their re-registration in subsequent semester or/and years. This scheme has been continued and currently extended as fee exemption at the time of admission along with re-registration which reaffirms university's commitment to provide inclusive educational opportunities to marginalized section of the Sikkim (IGNOU, 2017).

(b) **Teacher's training:** In line with central policy on Right to Education 2005, more than 2850 untrained in-service government GT and PGT teachers of Sikkim were trained through IGNOU's B.Ed. and D.El.Ed. programmes at the request of the state's Education Department. From 2003 to 2005, IGNOU allocated 200 B.Ed. seats out of which 100 seats were provided without an entrance test for teachers nominate by state government, which was also extended from the years 2010 to 2015. Whereas through university's D.El.Ed programme, 350 elementary in-service government teachers were trained upon their enrollment during the years 2013-2017 through Programme Study Centres established in DIET-Gangtok, DIET-Gyalshing, and DIET-Namchi, each allotted with 100 seats. Apart from these, DECE programme of IGNOU is considered as a prerequisite for pre-primary teacher appointments (Bhutia, 2023).

(c) **Educational Collaborations:** The University has collaborated with various institutions in Sikkim for course development, certification, and training. Under a MoU with the National Council of Hotel Management & Catering Technology (NCHMCT), it supports syllabus development for the Institute of Hotel Management (IHM), Sikkim, awarding B.Sc. in Hospitality and Hotel Administration, Diplomas, and Craft Certificates (IHM, 2021). Similarly, through a MoU with the State Institute of Capacity Building (SICB), Karfector, the university approved vocational courses and issued certificates upon completion (Government of Sikkim, 2023). Additionally, 166 mid-level health workers were trained during 2018–2020 through university's Bridge Programme Certificate in Community Health, enabling their employment in Primary Health Sub-Centres (Bhutia, 2023)..

5.6 Fresh Admission Enrollment Trends (2001–2024): This section explores the learners' enrollment trends of fresh admissions under the IGNOU RC Gangtok from 2001 to 2024. The fresh admission indicates number of learners enrolled under its two admission cycles in the year referred as January session and July Session. The fresh admission data categorized by the January and July sessions, capturing the total annual enrollment and significant percentage changes as furnished in the Table-1 placed here-below.

Table 1: Annual Fresh Admission of Learners under IGNOU in Sikkim: 2001-2024

Sr	Year	January session	July session	Total	% increase from immediate previous year
1	2001	0	30	30	0
2	2002	360	22	382	1273.33
3	2003	394	772	1166	305.24
4	2004	547	626	1173	100.60
5	2005	736	943	1679	143.14
6	2006	228	867	1095	65.22
7	2007	72	833	905	82.65
8	2008	216	822	1038	114.70
9	2009	621	1416	2037	196.24
10	2010	822	1366	2188	107.41
11	2011	1142	2297	3439	157.18
12	2012	686	2155	2841	82.61
13	2013	779	1869	2648	93.21
14	2014	1310	1764	3074	116.09
15	2015	1239	1925	3164	102.93
16	2016	476	1950	2426	76.68
17	2017	434	1805	2239	92.29
18	2018	666	1818	2484	110.94
19	2019	718	2323	3041	122.42
20	2020	844	1838	2682	88.19
21	2021	883	2209	3092	115.29
22	2022	587	2029	2616	84.61
23	2023	824	1852	2676	102.29
24	2024	871	1697	2568	95.96
	Total	15455	35228	50683	

Source: IGNOU Regional Centre Gangtok, Sikkim

Considering January and July session of a year taken together, the trends of annual fresh admission of learners from the year 2001 to 2024 were analysed and categorized as per the different stages of growth as follows:-

- Initial Growth Phase (2001–2005): In 2001, admissions recorded minimal, with just 30 enrollments in the July session. However, a dramatic increase was followed, with total enrollment jumping to 382 in 2002

and reaching 1,679 in 2005. The rapid growth indicates an early awareness and acceptance of distance learning programmes in the region.

- b. Fluctuating Growth Phase (2006–2010): The enrollment numbers fluctuated during this period, peaking at 2,188 in 2010. The July session consistently contributed more than the January session, reflecting a seasonal preference or alignment with regional academic calendars.
- c. Peak Enrollment Period (2011–2015): The enrollment reached its highest annual count of 3,439 in 2011, marking a significant milestone. Despite slight declines in subsequent years, annual enrollment remained above 3,000 until 2015. This period highlights the peak popularity of IGNOU programmes in the region and impact of fee exemption allowed along with provisions for teacher's trainings.
- d. Stabilization and Decline (2016–2020): From 2016, enrollment began to stabilize, averaging around 2,400 to 2,800 annually. A notable dip in 2016 (2,426) suggests external factors such as regional challenges or competition from other educational platforms.
- e. Post-Covid Recovery Phase (2021–2024): The pandemic era saw resilience in enrollment, with 2021 recording a significant 3,092 fresh admissions. However, a gradual decline followed, with enrollment decreasing to 2,568 in 2024. The data suggests recovery efforts and adaptations to post-pandemic challenges.

Whereas, in case of session wise trend analysis, the findings on admission under January and July sessions from 2001 to 2024 are furnished in the Table-2 below:-

Table 2: Analysis on Fresh Admission under January and July Sessions under IGNOU in Sikkim

January Session	July Session
<ol style="list-style-type: none"> i. Initial Growth: Admissions started modestly, with zero enrollment in 2001 and a substantial rise to 360 in 2002. This marked the beginning of consistent participation in January sessions. ii. Peaks and Declines: The number of learners steadily increased to a high of 1,310 in 2014. Afterward, enrollment figures declined sharply to 476 in 2016. iii. Post-2016 Recovery: From 2017 onwards, there was a gradual resurgence, with enrollment increasing to 883 in 2021 and remaining relatively steady thereafter. In 2024, the enrollment stood at 871. iv. Overall Growth: Over the 24-year period, January session enrollment totalled 15,455, indicating a gradual but uneven rise in participation. v. The January session showed a general upward trend despite some years of decline but significant fluctuations over the years from 2001 to 2024. 	<ol style="list-style-type: none"> i. Dominance in Early Years: In 2001, the July session had 30 enrollments compared to zero in January. This dominance persisted through subsequent years, peaking at 2297 admissions in 2011. ii. Rapid Growth: The number of admissions increased significantly, peaking at 2,323 in 2019. iii. Stability: Following the peak in 2019, enrollment remained relatively steady, averaging around 1,800-2,000 annually. The figure in 2024 was 1,697. iv. Decline: After reaching the peak in 2011, there was a gradual decline with fluctuations, particularly between 2012 and 2024. v. Total Admissions: Across the analysed years, the July session recorded a total of 35,228 enrollment, more than double the January session's total.
<p style="text-align: center;"><u>Comparative Analysis of January and July Sessions</u></p> <ol style="list-style-type: none"> i. Enrollment Share: Over the years, the July session consistently attracted more learners than the January session, with a cumulative enrollment of 35,228 compared to 15,455 for January. ii. Inter-Session Variability: The July session experienced sharper peaks and higher annual enrollment numbers, while the January session showed steadier but slower growth. iii. Trends: Both sessions experienced peaks and troughs, but the July session showed greater stability and resilience, especially after 2016. The January session displayed more pronounced fluctuations. In the last few years, the gap between January and July session enrollment has narrowed. For example, in 2024, January session enrollment (871) was closer to July session enrollment (1697) compared to earlier years. iv. Aggregate Contribution: Out of the total 50,683 enrollment from 2001 to 2024, the July session accounted for approximately 70%, underscoring its importance. v. Year-to-Year Variability: Certain years, such as 2011 and 2019, showed narrower gaps between the sessions, while others, such as 2006 and 2017, highlighted significant disparities. vi. The July session's higher enrollment figures suggest its preference among learners due to its coincidence of admission in the regular mode, as many who could not secure seat there prefers admission under ODL mode. vii. The variability in January session enrollment provides scope for targeted interventions to balance participation across sessions. 	

Over the 24-year period, total fresh admissions reached 50,683, demonstrating the sustained demand for distance learning in Sikkim. On account of percentage change analysis, the years like 2002 (1273% increase) and 2009 (196% increase) reflect breakthrough moments, while periods of stabilization align with institutional maturity. The data underscores the significant role of IGNOU in enhancing the GER in Sikkim. The enrollment growth trends reveal a persistent demand for open and distance learning.

5.7 Re-registration Enrollment Trends (2001–2024): This section examines learners' Re-registration trends under the IGNOU RC Gangtok from 2001 to 2024. The re-registration indicates number of existing learners of university having opted promotion to higher semester/year of undergraduate and post graduate degrees under its two different cycles in the year referred as January session and July Session. Alternatively, the re-registration data reflects the continuation of education by existing learners, offering insights into retention and satisfaction with university's programmes. The total re-registration enrollment under given session and total along with significant percentage changes are furnished in the Table-3 placed here-below.

Table 3: Annual Re-registration of Learners under IGNOU in Sikkim: 2001-2024

Sr	Year	January session	July session	Total	% increase in subsequent years
1	2001	0	0	0	0
2	2002	17	14	31	0
3	2003	94	16	110	354.84
4	2004	194	166	360	327.27
5	2005	99	424	523	145.28
6	2006	10	699	709	135.56
7	2007	49	787	836	117.91
8	2008	114	705	819	97.97
9	2009	14	726	740	90.35
10	2010	279	1121	1400	189.19
11	2011	342	1384	1726	123.29
12	2012	625	1939	2564	148.55
13	2013	476	2255	2731	106.51
14	2014	642	1839	2481	90.85
15	2015	844	1712	2556	103.02
16	2016	935	1889	2824	110.49
17	2017	614	1612	2226	78.82
18	2018	573	1601	2174	97.66
19	2019	655	1604	2259	103.91
20	2020	662	1690	2352	104.12
21	2021	992	1852	2844	120.92
22	2022	1062	2082	3144	110.55
23	2023	768	1936	2704	86.01
24	2024	730	1665	2395	88.57
	Total	10790	29718	40508	

Source: IGNOU Regional Centre Gangtok, Sikkim

Considering January and July session of a year taken together, the trends of annual re-registration of learners from the year 2001 to 2024 were analysed and categorized as per the different stages of growth as follows:-

- (a) Initial Phase (2001–2005): The re-registration began modestly, with no data in 2001 and a low total of 31 in 2002. The growth in re-registrations was seen by 2004, reaching 360, driven by improved learners' retention. The year 2005 saw further rise to 523, reflecting the increasing trend record of there-registration.

- (b) **Steady Rise and Transition (2006–2010):** The period saw re-registration numbers increasing steadily, peaking at 1,400 in 2010. The July session contributed significantly, often outnumbering the January session, showing a strong mid-year retention.
- (c) **Peak Period (2011–2016):** The re-registration surged during this period, with the highest annual total of 2,824 recorded in 2016. The trend indicates robust engagement and satisfaction among learners during these years. Notable year-on-year growth, such as from 1,726 in 2011 to 2,564 in 2012, underscores institutional efforts to improve the learner experience and impact of fee exemption allowed along with provisions for teacher's trainings.
- (d) **Stabilization Phase (2017–2020):** A gradual decline followed, with re-registrations stabilizing around 2,200–2,300 annually. While this shows a plateau, the consistency suggests established learners continued their studies despite external challenges.
- (e) **Post-Covid Developments (2021–2024):** A recovery in re-registration numbers was evident post-pandemic, with 3,144 in 2022 marking the second-highest total in the dataset. However, a declining trend was observed in 2023 (2,704) and 2024 (2,395), potentially reflecting demographic changes or competition from other educational options.

Whereas, in case of session wise trend analysis, the findings on re-registration under January and July sessions from 2001 to 2024 are furnished in the Table-4 below:-

Table 4: Analysis on Re-registration under January and July Sessions under IGNOU in Sikkim

January Session	July Session
<p>The January session displays notable fluctuations in re-registration over the years:</p> <ol style="list-style-type: none"> (a) Initial Growth (2002–2010): Re-registration started with a minimal count of 17 in 2002. By 2010, the numbers increased significantly to 279, indicating steady growth in awareness and participation during the early years. (b) Rapid Rise (2011–2016): There was a marked surge in numbers, peaking at 935 in 2016. This reflects the growing continuation of learner's studies. (c) Moderate Decline and Fluctuation (2017–2024): After the peak in 2016, there is a general decline with some fluctuations, reaching 730 in 2024. The decline post-2016 may indicate saturation or competing educational options. (d) Overall Performance: Over 24 years, the January session saw a total of 10,790 re-registrations, showcasing moderate consistency despite recent declines. 	<p>The July session demonstrates significantly higher re-registration numbers compared to January:</p> <ol style="list-style-type: none"> (a) Initial Dominance (2003–2010): Starting with low figures (14 in 2002), the session experienced exponential growth, peaking at 1,384 in 2011. This reflects stronger enrollment trends during this period, possibly influenced by better alignment with academic cycles. (b) Stability and High Performance (2012–2021): From 2012 to 2021, registrations remained consistently high, with the peak in 2022 at 2,082. This indicates the July session's growing importance in accommodating the academic and professional schedules of learners. (c) Gradual Decline (2022–2024): Registrations dropped slightly to 1,665 in 2024, potentially mirroring the broader trends seen in the January session. (d) Overall Performance: With a total of 29,718 re-registrations, the July session significantly outperforms January, indicating higher preference among learners.
<p>Comparative Analysis: January vs. July Sessions:</p> <ol style="list-style-type: none"> a) Aggregate Trends: The July session accounts for nearly 73% of total re-registrations (29,718 out of 40,508), whereas January contributes about 27% (10,790). This suggests the July session is the primary choice for learners. b) Peak Years: Both sessions experienced peak years around 2016–2022, reflecting a synchronized pattern of institutional growth. c) Declining Trends: From 2023 onwards, both sessions saw a downturn, but the January session is more affected proportionally. d) Observations: The higher enrollment in the July session might align better with the academic and professional needs of learners. Institutional policies, promotional activities, or external factors might have contributed to the sessional differences in preferences. 	

This trend analysis highlights the relative stability and stronger preference for the July session while recognizing the January session's supplementary role in accommodating re-registrations. The July session consistently outperformed the January session thereby mirroring trends seen in fresh admissions. Both sessions experienced a growth phase peaking around 2016–2022, followed by recent declines, necessitating strategic interventions to

rejuvenate participation. However, a total of 40,508 re-registrations over 24 years highlights sustained and long-term retention of learners.

The re-registration trends demonstrate a strong commitment to continuing education among learners in Sikkim. While enrollment has fluctuated, the overall trend indicates effective retention strategies and adaptability to challenges. These findings contribute to understanding the role of distance learning in enhancing educational outcomes and maintaining the GER in the region.

5.8 Annual Learners' Enrollment Trends (2001–2024): Based on the data in the Tables 1 and 3 above, total learners' enrollment for a year under IGNOU RC Gangtok were obtained by totalling annual fresh admissions and annual re-registrations. In this connection, analysis and finding on the trends of annual learners' enrollment in Sikkim are furnished in the Table-5 here-below:

Table 5: Annual Learners' Enrollment under IGNOU Regional Centre Gangtok: 2001-2024

Sr	Year	Annual learners' enrollment with % increase over previous record					
		Fresh Admission	% increase over previous record	Re-registration	% increase over previous record	Total	% increase over previous record
1	2001	30	0	0	0	30	0
2	2002	382	1273.33	31	0	413	1376.67
3	2003	1166	305.24	110	354.84	1276	308.96
4	2004	1173	100.60	360	327.27	1533	120.14
5	2005	1679	143.14	523	145.28	2202	143.64
6	2006	1095	65.22	709	135.56	1804	81.93
7	2007	905	82.65	836	117.91	1741	96.51
8	2008	1038	114.70	819	97.97	1857	106.66
9	2009	2037	196.24	740	90.35	2777	149.54
10	2010	2188	107.41	1400	189.19	3588	129.20
11	2011	3439	157.18	1726	123.29	5165	143.95
12	2012	2841	82.61	2564	148.55	5405	104.65
13	2013	2648	93.21	2731	106.51	5379	99.52
14	2014	3074	116.09	2481	90.85	5555	103.27
15	2015	3164	102.93	2556	103.02	5720	102.97
16	2016	2426	76.68	2824	110.49	5250	91.78
17	2017	2239	92.29	2226	78.82	4465	85.05
18	2018	2484	110.94	2174	97.66	4658	104.32
19	2019	3041	122.42	2259	103.91	5300	113.78
20	2020	2682	88.19	2352	104.12	5034	94.98
21	2021	3092	115.29	2844	120.92	5936	117.92
22	2022	2616	84.61	3144	110.55	5760	97.04
23	2023	2676	102.29	2704	86.01	5380	93.40
24	2024	2568	95.96	2395	88.57	4963	92.25
	Total	50683		40508		91191	

Considering both the session of the year taken together, the trends of annual fresh admission and annual re-registration of learners under IGNOU in Sikkim from the year 2001 to 2024 were analysed and observation thereof are presented in the Table-6 placed here-below.

Table 6: Analysis on Trends of Annual Learners' Enrollment under IGNOU in Sikkim

Annual Fresh Admissions Growth Rate Analysis		Annual Re-registrations Growth Rate Analysis	
(a)	The total number of fresh admissions from 2001 to 2024 stands at 50,683.	(a)	The total number of re-registrations is 40,508.
(b)	The initial years (2001–2005) witnessed significant growth, with spikes in 2005 (1,679 admissions).	(b)	As re-registrations generally tracked alongside fresh admissions, peaking in 2012 (2,564 re-registrations).
(c)	Between 2001 and 2011, an approximate 114-fold increase highlights a high-growth phase. But peak growth occurred in 2011 (3,439 admissions).	(c)	From 2012 onwards, re-registrations stabilized with modest yearly fluctuations, maintaining around 2,000–3,000 per year.
(d)	However, Post-2011, fresh admissions gradually declined, stabilizing around 2,500–3,000 per year after 2016.	(d)	The growth rate closely mirrors fresh admission patterns, as re-registrations depend on learners' retention and programmes continuation.
Combined and Overall Growth Rate Analysis			
The annual learners' enrollment in 24 years is recorded at 91,191. Though the growth rate slowed post-2011, IGNOU's programmes consistently attracted learners. The significant growth milestones comprise of the followings			
(a)	Fresh admissions tripled in 2003 as compared to 2002.		
(b)	Reaching of 5,000+ total enrollment in 2011.		
(c)	The period from 2011 to 2023 maintains sustained peak period for admissions and re-registrations.		
(d)	Year 2021 makes a record for highest total enrollment of 5,936 learners.		
(e)	The enrollment during 2020–2021 reflect resilience in the distance learning model post Covid-19 pandemic as IGNOU was uniquely positioned to meet the demand for flexible education.		

This trend analysis highlights that IGNOU has significantly contributed in improving GERs in Sikkim, especially by providing access to higher education for underserved populations. This offers a foundation for further research into the factors influencing enrollment trends and the strategies to sustain growth.

5.9 IGNOU's Impact on Higher Education GER in Sikkim: According to All India Survey on Higher Education (AISHE) reports, the GER in higher education represents the percentage of individuals enrolled in higher education institutions relative to the population of the age group that officially corresponds to higher education (typically 18-23 years). Being officially 2011-12, the data on GER in higher education are provided by AISHE reports in respect of national average together with that of every state and union territories of India. The number of learners enrolled under IGNOU RC Gangtok and corresponding GER in higher education for India along with that of Sikkim are furnished in the Table-7 placed here-below.

Table 7: GER in Higher Education for India and Sikkim from 2009-10 to 2023-2024

Sr	Year	GER		Annual Learners Enrolled in Sikkim under IGNOU		
		India	Sikkim	Fresh Admission	Re-registration	Total
1	2010-11	19.4	24.2	2188	1400	3588
2	2011-12	20.8	28.2	3439	1726	5165
3	2012-13	21.5	24.3	2841	2564	5405
4	2013-14	23.0	27.8	2648	2731	5379
5	2014-15	24.3	30.3	3074	2481	5555
6	2015-16	24.5	37.6	3164	2556	5720
7	2016-17	25.2	37.3	2426	2824	5250
8	2017-18	24.6	33.7	2239	2226	4465
9	2018-19	24.9	48.1	2484	2174	4658
10	2019-20	25.6	66.9	3041	2259	5300
11	2020-21	27.3	39.9	2682	2352	5034
12	2021-22	28.4	38.6	3092	2844	5936

Source: Govt. of India (AISHE Reports, 2017 & 2022) and IGNOU Regional Centre Gangtok.

Based on the data in the above table, an analysis of the IGNOU annual admissions in Sikkim and the corresponding higher education GER of state compared to India are furnished here-below.

- a) Sikkim consistently has a higher GER in higher education compared to the national average (India) throughout the years 2010-2022.
- b) The GER for Sikkim peaks at 66.9 in 2019-20, which is significantly higher than the national GER of 25.6 in the same year.
- c) The trends in GER and IGNOU enrollment in Sikkim demonstrate a notable correlation, as outlined below:
 - i. Periods of Increase: Between 2010-11 and 2011-12, both GER and IGNOU enrollment exhibited a sharp rise, with GER increasing from 24.2 to 28.2 and IGNOU enrollment rising from 3,588 to 5,165. Similarly, during the periods of 2014-15 to 2015-16 and 2018-19 to 2019-20, substantial growth in GER was observed (30.3 → 37.6 and 48.1 → 66.9), paralleling increases in IGNOU enrollment (5,555 → 5,720 and 4,658 → 5,300). These trends underscore IGNOU's pivotal role in enhancing higher education participation. Additionally, during 2020-21 to 2021-22, GER stabilized (39.9 → 38.6) while IGNOU enrollment increased significantly (5,034 → 5,936), indicating IGNOU's capacity to sustain educational accessibility during periods of external challenges.
 - ii. Periods of Decline: From 2012-13 to 2013-14, GER declined (28.2 → 24.3) despite a slight increase in IGNOU enrollment (5,165 → 5,405), suggesting the presence of external factors negatively affecting overall higher education participation. Between 2016-17 and 2017-18, both GER (37.3 → 33.7) and IGNOU enrollment (5,250 → 4,465) decreased, indicating a contraction in higher education access during this period. Similarly, from 2019-20 to 2020-21, a significant decline in GER (66.9 → 39.9) accompanied a modest drop in IGNOU enrollment (5,300 → 5,034), likely reflecting broader systemic disruptions such as the Covid-19 pandemic or economic challenges.
 - iii. While periods of rise and fall underscore IGNOU's direct contribution to expanding access and GER of the Sikkim.
- d) The data reveals a strong alignment between fluctuations in GER and IGNOU enrollment in Sikkim, suggesting that university plays a significant role in shaping higher education participation. However, variations in GER also reflect the influence of other contributing factors, indicating that while IGNOU is instrumental, it is not the sole determinant of Sikkim's higher GER.
- e) Sikkim's high GER indicates significant penetration of higher education relative to its population in the 18–23 age group. Institutions like IGNOU play a vital role by providing accessible education, particularly in remote and underserved areas.

6 DISCUSSION

This section interprets the findings to elucidate the significant role of the IGNOU in enhancing the GER in Sikkim and addressing remedy to educational disparities. The analysis underscores the effectiveness of university's ODL model in promoting inclusive education on account of the following observations.

6.1. Learners' Enrollment Growth and Trends: The enrollment trends over the period 2001–2024 indicate steady growth, reflecting the increasing acceptance and impact of IGNOU's ODL initiatives. The significant rise in fresh admissions, from a modest 30 in 2001 to a peak of 3,439 in 2011, highlights a growing demand for flexible and accessible education. This period of growth corresponds to RC Gangtok's intensified outreach through the establishment of study centres, customized programmes and impact of fee exemption allowed along with provisions for teacher's trainings. The post-2016 stabilization phase, with consistent enrollment ranging from 2500 to 3000, suggests the attainment of a mature learner base in the region. Whereas, re-registration trends mirror those of fresh admissions, with peaks during 2011–2016 signalling strong retention and learner satisfaction. The July session consistently outperformed the January session in both fresh admissions and re-registrations, suggesting alignment with the regional academic and professional calendar. These findings confirm IGNOU's ability to adapt to the evolving educational needs of learners, sustaining enrollment growth despite challenges such as competition and external disruptions, including the Covid-19 pandemic.

6.2. GER Impact in Sikkim: The GER data for Sikkim aligns with the growth patterns of IGNOU's enrollment, highlighting its direct contribution to increasing higher education accessibility. Sikkim's GER of 28.2% in 2011 significantly surpassed the national average of 20.8%, reflecting the critical role played by university in bridging educational gaps. IGNOU's inclusive policies, such as enrollment policy and fee waivers for marginalized groups, including SC/ST communities, have significantly addressed educational inequities. The steady rise in GER validates the success of university's ODL approach in addressing systemic disparities and fostering equitable educational growth.

6.3. Effectiveness of IGNOU's ODL Model: The sustained demand for university's programmes depicted in form of steady growth in enrollment and GER highlights the effectiveness of its ODL system in overcoming regional challenges. The ODL model has allowed learners from remote areas to access higher education without

the need for physical relocation. This flexibility was especially beneficial in geographically isolated areas of Sikkim. By offering self-paced learning and remote study opportunities, the university has provided learners with an adaptable and convenient mode of education. The programmes on teachers training aligned with local needs ensured relevance and employability for learners. The establishment of Regional Centre Gangtok and LSCs has been pivotal in providing academic guidance and administrative support. The establishment of multiple LSCs across Sikkim ensured accessibility, even in remote districts. Despite a reduction in the number of active LSCs over the years, their strategic locations and services continue to meet learner demands effectively. The use of ICT tools enhanced the reach and quality of education. While challenges like inadequate internet connectivity persisted, IGNOU's hybrid model of self-paced traditional study materials and occasional in-person support along with online resources mitigated the challenges to a significant extent.

6.4. Addressing Educational Disparities: IGNOU has played a transformative role in reducing educational inequities across the state of Sikkim. Its decentralized network of LSCs has ensured that learners in remote and rural areas can access higher education. This approach could be critical in bridging the gap between urban and rural GER, whereas, its affordable fee structure and financial aid initiatives have made higher education attainable for economically disadvantaged groups, reducing the financial burden on families.

6.5. Sustained Demand for ODL and Future Opportunities: Despite fluctuations in annual growth trends, the total enrollment of 90,606 (comprising fresh admissions and re-registrations) over 24 years underscores the sustained demand for IGNOU's programmes. Key growth milestones, such as a 1,273% increase in admissions in 2002 and a peak enrollment year in 2011, highlight breakthrough moments in the IGNOU's regional impact. Despite a slight decline in enrollment post-2016, the consistent learner base reflects the enduring relevance of ODL in Sikkim. Recovery efforts post-Covid-19 have demonstrated the resilience of its model, positioning it as a critical player in flexible education delivery.

In nutshell, the findings affirm IGNOU's significant role in enhancing GER and addressing higher education accessibility in Sikkim. Through its flexible and inclusive ODL model, it has not only improved GER but also helped to address educational disparities. However, challenges such as technological gaps, declining enrollment in recent years, and the need for enhanced learner support must be addressed to sustain and expand its impact. With strategic interventions, IGNOU can continue to lead the way in democratizing education, aligning with India's broader GER targets and NEP 2020 goals. Accordingly, the recommendation and suggestions required for further development are listed but not limited to the following:-

- (a) The strengthening technological infrastructure requires prioritized investments in digital infrastructure by the government to provide high-speed internet in remote regions of Sikkim to enhance accessibility for learners.
- (b) Establishment of additional LSCs in underserved areas can ensure equitable access to academic and administrative support to learners of such place. Also collaborate with local governments, NGOs, and community leaders to promote enrollment in remote areas.
- (c) Launch awareness programmes on government scholarship schemes to different communities shall promote inclusivity of economically disadvantaged groups and first-generation learners.
- (d) Enhance learners' enrolment through promotional programmes on newly launched diversified programmes of IGNOU on general, intra-disciplinary and trans-disciplinary specializations, emerging vocational and skill development programmes.
- (e) Partner with local industries to create pathways for employment and entrepreneurship for ODL graduates.
- (f) Develop robust mechanisms to monitor enrollment, retention, and programmes completion rates.
- (g) Conduct regular feedback surveys among learners to identify challenges and improve programmes delivery.

The future studies comprised of but not limited to exploration on the learners' barriers to enrollment, retention, and programmes completion; long-term socio-economic impacts of IGNOU's programmes on graduates including career progression and community development, etc.

7 CONCLUSION

The study highlights impact of the IGNOU in enhancing the GER in higher education of Sikkim and educational disparities addressed from 2001 to 2024. Targeted interventions, such as fee waivers for marginalized groups and the establishment of LSCs across remote districts, have been instrumental in reaching the unreached populations of the state. Through its ODL model, it has successfully expanded access to higher education in the state. The provision of affordable education, and delivery of teachers training have collectively contributed to Sikkim's remarkable GER growth, surpassing the national average in key years. The steady enrollment trends during the Covid-19 pandemic, reflect the sustained demand for IGNOU's programmes. The growing re-registration re-registration patterns aligned closely with fresh admissions trends further emphasize strong

retention and satisfaction among learners, underscoring the institution's ability to cater to diverse educational needs.

The study concludes that IGNOU's role in democratizing education in Sikkim is not only significant but also a model for leveraging ODL to address educational disparities across other remote regions. By aligning with the objectives of the NEP 2020, IGNOU can continue to play a critical role in achieving India's ambitious GER targets and fostering equitable access to quality higher education.

In conclusion, IGNOU has significantly contributed to increasing GER in Sikkim and India, promoting inclusive education and overcoming geographical and financial barriers. The ODL model has proven effective in bridging the gap between remote learners and higher education opportunities. By continuing to adapt and innovate in alignment with the NEP 2020, IGNOU can further enhance its impact, ensuring equitable and quality education for all, especially in underserved regions like Sikkim.

REFERENCES

1. Ahmad, A., & Sikandar, M. (2022). All India survey on higher education: Does the data impact policies? *International Journal of Advanced Research*. <https://doi.org/10.21474/ijar01/15370>.
2. Appavoo, P., Sukon, K., Gokhool, A., & Gooria, V. (2019). Why Does Collaborative Learning Not Always Work Even When the Appropriate Tools Are Available?. *Turkish Online Journal of Distance Education*. <https://doi.org/10.17718/tojde.640500>.
3. Bhattacharya, S. (2017). Teacher training through distance education in India: A critical review. *Journal of Distance Education and Technology*, 15(2), 45-56.
4. Bhutia, Y. (2023, September 26). Facilitation/recommendation towards allotment of government land for permanent establishment of IGNOU Regional Centre Gangtok [Letter to Additional Chief Secretary, Departments of Education, Government of Sikkim]. Indira Gandhi National Open University, Regional Centre Gangtok.
5. Borthakur, P., Nath, S. K., & Chakraborty, S. (2024). Higher education landscape in India: Government expenditure and its implications on growth and access. *Space and Culture, India*. <https://doi.org/10.20896/saci.v12i1.1422>.
6. Chen, T.-L. (2020). Comparing concurrent relationship predictions between higher education expansion and economic growth in China and India. *International Journal of Business and Social Science*. <https://doi.org/10.30845/ijbss.v11n7a6>.
7. Chettri, K.B. (2022). An Empirical Analysis of Growth and Development of Higher Education in Sikkim. *Indian Journal of Finance and Economics*, Vol. 3, No. 1, pp. 1-17. <https://DOI:10.47509/IJFE.2022.v03i01.01>
8. Darjee, D. K. (2024, February 21). *Higher educational status of Sikkim: Establishment of Universities*. Sikkimexpress. <https://www.sikkimexpress.com/news-details/higher-educational-status-of-sikkim-establishment-of-universities>
9. Darjee, D.K. (2024). IGNOU's Regional Contributions: Transforming Education and Skill Development in Sikkim. *Educational Administration: Theory and Practice*, 30(1), 5716-5726. <https://doi.org/10.53555/kuey.v30i1.9218>
10. Deen, S. (2014). Women in higher education: A spatial-temporal analysis of higher education from a gender perspective in India. *Learning Community-An International Journal of Educational and Social Development*, 5, 173-192.
11. Dzakiria, H., Kasim, A., Mohamed, A., & Christopher, A. (2013). Effective learning interaction as a prerequisite to successful open distance learning (ODL): A case study of learners in the northern state of Kedah and Perlis, Malaysia. *The Turkish Online Journal of Distance Education*, 14(1), 111-125.
12. Ebabhi, A., & Adewoyin, A. (2020). Female learners' expectations and experiences in open and distance learning: Case of the University of Lagos. *Journal of Educational Research and Development*, 4(1), 373-380.
13. Ghosh, S., Nath, J., Agarwal, S., & Nath, A. (2012). Open and distance learning (ODL) education system: Past, present and future—A systematic study of an alternative education system. *Journal of Global Research in Computer Sciences*, 3(3), 53-57.
14. Government of India. (2017). *Table 47. Gross Enrolment Ratio during last 7 years, All India Survey on Higher Education (2016-17)*. Ministry of Human Resource Development, Department of Higher Education. Retrieved from <https://cdnbbsr.s3waas.gov.in/s392049debbe566ca5782a3045cf300a3c/uploads/2024/02/20240214637556046.pdf>
15. Government of India. (2022). *Table 47: Gross Enrolment Ratio (GER) during last 5 years, All India Survey on Higher Education (2021-22)*. Ministry of Education, Department Higher Education.

- Retrieved from <https://cdnbbsr.s3waas.gov.in/s392049debbe566ca5782a3045cf300a3c/uploads/2024/02/20240719952688509.pdf>
16. Government of Sikkim. (2023). *Focused Areas of SICB: General*. Government of Sikkim. Retrieved from <https://sikkim.gov.in/department/departmentmenudetails?url=Menu%3Dstate-institute-of-capacity-building%2Ffocused-areas-of-sicb>
 17. Government of Sikkim. (2024). *Higher education in Sikkim*. Government of Sikkim. <https://www.sikkim.gov.in/departments/education-department/higher-education-in-sikkim>
 18. Hussain, J., Rosangliana, D., & Vanlalruata. (2023). Student gross enrolment ratio forecasting: A comparative study using statistical method and machine learning. *International Journal of Information and Education Technology*. <https://doi.org/10.18178/ijiet.2023.13.3.1824>.
 19. IGNOU. (2017, July 25). *Notification on SC/ST fee exemption scheme continuation*. Planning & Development Division, Indira Gandhi National Open University.
 20. IGNOU. (2023). About IGNOU. Indira Gandhi National Open University. Retrieved from <http://www.ignou.ac.in>
 21. IHM. (2021, July 6). *Courses/Programme - Institute of Hotel Management*. Institute of Hotel Management. Retrieved from <https://ihmgangtok.com/courses-programme/>
 22. Joshi, K., & Ahir, K. (2016). Higher education growth in India: Is growth appreciable and comparable? *International Journal of Physical and Social Sciences*, 13, 57–74.
 23. Kakkar, Gurudatt. (2017). The Scenario of Higher Education in India; challenge and elucidation. *IJCRI-International journal of Creative Research & Innovation*, 2017, Available at SSRN: <https://ssrn.com/abstract=3681252>
 24. Kour, M. (2013). Equal opportunity to learn through open university system: A case study of IGNOU. *Research Journal of Educational Sciences*. 1(6), 23-26.
 25. Kumar, R., & Singh, P. (2020). Open and distance learning: A transformative force in Indian higher education. *International Journal of Education and Development*, 25(1), 21-35.
 26. Ministry of Education. (2020). Highlights of New Education Policy-2020. Press Information Bureau, Government of India. Retrieved from <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1654058>
 27. Mishra, S. (2011). Distance education in India: Growth and development. *Asian Journal of Open Learning*, 9(1), 12-19.
 28. Ofogebu, I. (2010). Female access to basic education: A case for open distance learning (ODL). *Edo Journal of Counselling*, 2(1), 46–57.
 29. Rai, S., Sharma, D., & Das, P. (2020). Enhancing GER through distance education: A case study of IGNOU. *Education for All*, 14(2), 78-85.
 30. Roy, A. (2015). Vocational education and skill development through ODL: IGNOU's initiatives. *Journal of Vocational Studies*, 7(1), 34-41.
 31. Sharma, M. (2016). Access to higher education: Indian scenario. *International Journal of Research in Economics and Social Sciences*, 6(4), 78–85.
 32. Sharma, M., & Das, P. (2018). Role of vocational education in rural development: IGNOU's model in Northeast India. *Journal of Rural Development Studies*, 12(4), 89-102.
 33. UNESCO. (2021). Global education monitoring report. UNESCO Publishing.
 34. Vaishnavi, S. (2024). Central government schemes in Indian higher education: A comprehensive analysis of impact, quality, and assessment methodologies. *Electronic Journal of Social and Strategic Studies*. 5(1). 76-90. <https://doi.org/10.47362/ejsss.2024.5104>.