

Corporate Social Responsibility as a Catalyst for Rural E-Learning: A Strategic Management Perspective

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Abstract:

The advent of online education in India gained momentum with the implementation of the National Mission on Education through Information and Communication Technology by the Ministry of Human Resource Development, aiming to extend education to all corners of the country. Despite these efforts, the penetration of e-learning remains limited, particularly in rural areas. The significance of providing education in rural regions is paramount for alleviating poverty and illiteracy, fostering economic growth, and promoting social, cultural, and political development. The COVID-19 pandemic further underscored the need for online learning during crises. However, rural education faces numerous economic, social, infrastructural, and technological challenges, impacting the effectiveness of the teaching-learning process. This research investigates the challenges faced by students from rural areas in pursuing higher education online, identifying both physical and psychological barriers. Physical obstacles include inadequate infrastructure, a lack of technical support, poor network connectivity, and the unavailability of necessary devices, all of which hinder access to high-speed internet. These factors significantly impact students' psychological wellbeing, influencing their behaviour and engagement in academic studies. Key issues, including changes in attitude, perception, learning processes, concentration, anxiety levels, motivation, and social interaction, contribute to academic disengagement. Focusing on higher education institutions and students in the Management field in the rural Vidarbha region, this study examines the determinants of effective online education and their relationship with psychological wellbeing and academic disengagement. A total of 350 questionnaires were distributed, and 310 responses were analysed using SPSS and AMOS. The research also aims to propose solutions to improve rural online education, such as creating data banks for recorded lectures, providing study materials and question banks, and establishing recording facilities for teachers as part of Corporate Social Responsibility (CSR) initiatives.

Keywords: Online education, Rural area, Higher education, CSR, Student Behaviour, psychological wellbeing.

1. Introduction

Education empowers people through the improvement of competencies, the enlargement of opportunities, and the increase of freedom; it becomes a fundamental goal and a key means of development. The second-largest system in terms of size globally, the Indian education system is diverse and varied in its offerings. This vast system provides numerous opportunities for students, ensuring comprehensive academic and personal growth in the global arena. Courses at these Indian institutions of higher learning, from almost every discipline, are of comparative standard globally; however, they are available to students at a fraction of the cost cited in most other countries around the world. Education opens the door to the big world at large. It takes a very active part in stimulating social and economic development but none of this would be possible without the education available in the first place (Pandey, A., & Pandey, A. K. (2020). India is a progressive nation that allows students from all parts of the world to join its educational institutions for various courses and to study multiple disciplines. Although the peripheral population of the country resides in rural areas, education helps them grow economically and socially. There are, however, different improvements needed in rural areas, which hinder the country's overall literacy rate. While the vision of digital education under the National Education Policy 2020

represents a departure from the previous model of classroom teaching, its implementation has proven to be an extremely challenging task in rural India, involving teachers, schools, and the government.

Education is considered a pivotal factor that can trigger a change in the social well-being and economic condition of rural India. The ASER Report 2019 notes that in a sample survey conducted in 25 rural districts of India, only 16% of Class 1 children were able to read the prescribed text. Nearly 40% could not identify letters at all Singh, M. N. (2021) up gradation of the rural education system with concerted endeavouring to make India a skilled nation. Developing countries face gaps in terms of education expansion, which necessitates investment in this area to train a skilled workforce. It is evident that for a knowledge-based society, the role of higher education is to create individuals with in-depth understanding and knowledge who can take on the challenges presented by a time of change. Higher education is intended to impart advanced knowledge and understanding, guiding students towards new frontiers in various fields. Higher education, particularly in rural settings, becomes an imperative step for enhancing and accelerating national development. New reforms in the Indian education system have been influenced by globalisation, liberalisation, and privatisation. With the revolution in technology, changes in demand and supply, innovation, creativity, socio-economic shifts, and evolving market demands, higher education must keep pace with these developments. There exists an imperative need for education that is oriented toward employment and guides toward employment.

India is a developing country and an emerging global economy, but it cannot ignore the realities of its rural areas. The majority of its population resides in rural areas, and most of them live below the poverty line. Now, it has been 75 years since independence, and rural education and society are still far from being fully integrated into the mainstream. It is believed that people move into towns in search of better employment and living conditions, thereby contributing to overcrowding in cities and exacerbating environmental issues. Education can be the most significant transformation that takes place in rural India, serving as an instrument for upgrading, transitioning, and achieving upward mobility. Worthiness, upliftment vision, and practical strategies are needed. Populations need to be uplifted. Studies have shown that the rate of achieving higher education attainment in rural areas is considerably less compared to urban areas due to the less investment of resources and institutions in those areas. The holistic approach aims to ensure that quality education reaches the grassroots. Each village faces different challenges than another. A clear vision and strategies will be implemented to enable the rural population to sustain their livelihoods in the communities where they are born, providing ample employment and entrepreneurial opportunities. Higher educational institutions with all required resources will have to be established in rural areas through partnerships.

2. Literature Review:

Several studies highlight the continuous improvement of online education methods, the significance of CSR in supporting educational development, and the challenges faced by rural education systems. A study conducted by (Alves et al., 2020) examined knowledge, attitudes, and preventive behaviours towards COVID-19 among higher education students in Portugal. Their study involved 262 students from a Portuguese university, assessing several dimensions of their response to the pandemic. The findings brought important knowledge to bear on the awareness and attitudes of the students, which require universities to have continuous preventive campaigns for the sake of good preventive behaviour within an academic setting. Kang and Zhang (2020) compared traditional teaching methods with forum-based online teaching and found that the latter significantly improved in terms of student engagement and motivation. Their study showed that online teaching reduces procrastination and plagiarism while also creating a relatively mild level of peer pressure and competitiveness, which benefits learning. In this regard, (Unger & Meiran, 2020) evaluated the attitudes of the students concerning the switch to online education during the COVID-19 pandemic and reported that many students were anxious about this change in their modes of learning; also, they have found that they perceive online learning to be less effective than learning in a traditional classroom.

(Ng et al., 2020) examined how susceptibility to online information influences the advice-seeking behaviours of students in institutional choice decisions. Drawing on insights from the Theory of Planned Behavior, the results indicated that highly susceptible students to online information were influenced by social norms. The information gleaned from this research outcome forms a basis for understanding that online information plays a central role in shaping students' decisions and their implications for higher education institutions (HEIs) as well. According to Zheng et al. (2019), an opinion is a neural network classification algorithm proposed to analyse

the factors affecting learning behaviour in online education. It proposed control strategies for various influencing factors and focused on the richness of online education resources and the autonomy it afforded students. It highlights the potential for online education to offer flexible learning opportunities at one's own pace. Guided by a conceptual framework, Redmond et al. (2018) were in a position to determine which themes are now dominant and which are emerging as far as online education is concerned. They identified five crucial elements related to online engagement: social, cognitive, emotional, collaborative, and behavioural. This framework aims to assist educators and researchers in developing tools and strategies to provide students with more effective support in their online learning journeys. Boca (2021) conducted research on students' attitudes and behaviours towards online education during the pandemic at the Technical University Cluj-Napoca, Romania. It was found that, despite students experiencing stress in online education, they still prefer online modes of evaluation. This calls for the need for harmonised methods of teaching that accommodate students' liking and reduce stress.

Gulavani et al. (2016) highlighted the role of Corporate Social Responsibility in enhancing economic development and improving the quality of life for the workforce, their families, and society at large. CSR is specifically videotaped as a tactic that helps HEIs focus on how they can bring continuous improvement and sustainability to their activities. Vijayalakshmi (2018) highlighted the responsibility of CSR in providing quality education, mainly in rural areas, so that poverty can be eradicated and pave the way towards inclusive development. Kapur (2019) has pointed out the issues characterised by the education system in rural India, including wretched teaching methodologies, inadequate infrastructure, and limited extracurricular activities. It then recommended using technology, improving infrastructure, and creating awareness among parents to overcome these barriers. Similarly, Jain et al. (2017) assessed the status and issues of women's education in rural India, noting that infrastructural facilities, public transportation, and government efforts are necessary to increase the literacy rate of female students. (Sheikh, 2017; Gupta & Gupta, 2012) have provided an overview of the problems and prospects associated with the system of higher education in India. They identified problems with enrollment, quality, inadequate infrastructure, and political interference. The commission also recommended encouraging open universities, providing tax incentives, promoting research and innovation, and improving the system. Rashid and Yadav (2020) assessed the implications of the pandemic on higher education, with an emphasis on the need for educators to acquire new teaching methods to ensure better learning outcomes. Aristovnik et al. (2020) did a large-scale study on the impact of COVID-19 on students in higher education settings worldwide. Their findings reported that students were loaded with various problems, from anxiety and boredom to the academic/career domain. This study accordingly identified key factors that influence student satisfaction regarding the efficiency of universities in supporting students during such a crisis, providing valuable insights for policymakers and decision-makers to develop strategies for supporting students. (Jena, 2020) indicates the effects of the coronavirus outbreak on Higher Education Institutes in India. The study elaborated on the means and ways that HEIs ensured continuity in teaching, learning, and research and mentioned that the pandemic opened up new possibilities for flexible, self-paced learning. It concluded that in the future, online and physical education must work in tandem to provide a comprehensive learning experience. Kumar and Naveen (2016), presented a social entrepreneurship model for rural education in India by combining or integrating CSR for the purpose of removing the cause at its roots like illiteracy. Their study proposed a model of BET to encourage corporations toward education because of being an easy way to ensure social and economic development.

2.1 Challenges in Rural Education

The education system in rural India faces a host of persistent challenges that restrict equal access and quality learning opportunities. Among the foremost issues is the inadequate infrastructure. Many schools located in villages still function without essential digital resources such as computers, internet connectivity, or even properly maintained classrooms. This lack severely limits the ability to implement online or hybrid learning approaches, particularly in times of crisis when such methods are most needed (Kormos & Wisdom, 2020). Additionally, economic hardship has a significant impact on students' ability to continue their education. A large number of rural families live under the poverty line and cannot afford the digital devices and internet services that modern learning often requires, especially during disruptions like the COVID-19 pandemic (Corea & Parvez, 2024). In many cases, financial pressure compels children to seek employment at a young age to contribute to their household income, which inevitably leads to irregular attendance and early school dropouts.

Geographical distance is another major deterrent. Secondary schools and colleges are often located far from students' homes, making daily travel not only time-consuming but also costly. This is particularly problematic for girls, who may also face safety concerns while commuting. As a result, many families choose to withdraw their daughters from school once they reach adolescence. In states like Karnataka and West Bengal, such trends are well-documented, with reports pointing to long travel distances and the fear of harassment as major factors behind high dropout rates (Ramanaik & Nadaf, 2019; Sarkar, 2014). Furthermore, rural schools often struggle with a lack of qualified teaching staff. Attracting and retaining skilled educators in remote areas remains difficult, and the shortage of technical support staff hampers the integration of technology into the learning environment (Kormos & Wisdom, 2020).

Beyond physical and economic factors, psychological and socio-cultural elements play a key role in shaping educational outcomes. In many rural households, especially those dependent on agriculture, education is not viewed as a priority. With survival being the immediate concern, long-term academic goals take a back seat. This often results in students feeling disconnected or uninterested in learning (Upasak & Singhal, 2021). Cultural traditions further complicate the situation, particularly for female students. In several communities, prevailing gender norms discourage or outright prevent girls from pursuing secondary or higher education. Concerns over safety, societal expectations, and the push for early marriage continue to limit educational opportunities for many (Sarkar, 2014; Women's Studies International Forum, 2024). Clearly, solving the rural education crisis calls for a multi-dimensional approach one that addresses infrastructure, raises awareness, promotes inclusive policies, and actively involves communities in reshaping attitudes toward learning and gender equality.

3. Research Methodology

This research focuses on the problems faced by students in online education in rural areas of Vidarbha. This research work is of a descriptive and analytical nature. Data have been collected from both primary and secondary sources. The primary data were collected through an online survey conducted using a questionnaire prepared in Google Forms, which was sent via email. In this present study, higher education institutions and undergraduate and postgraduate students in the Management field have become the target. It is located in the rural parts of the Vidarbha region. A total of 350 questionnaires were distributed, out of which 310 were analysed through SPSS and AMOS. The objective of the present study is to analyse the educational system in the rural areas of the region. Another objective of the present study is to investigate the physical and mental barriers perceived by students in rural areas during the educational process.

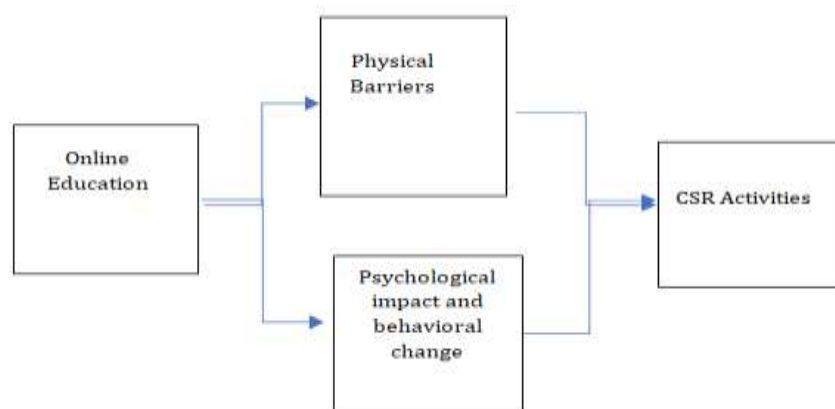


Figure 1: Navigating Challenges of Online Education through CSR in Rural Areas

4. Data Analysis and Findings

H1: There is a significant association between course of study and the source of internet used by the respondent

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.244 ^a	4	.001
Likelihood Ratio	15.341	4	.001

N of Valid Cases	310		
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By using the chi-square test the hypothesis is accepted stating that there is a significant Association between the course of study and the source of internet used by the respondent.

H2: There is a significant association between family monthly income and respondent opinion towards online classes (Environment at house suitable for online classes)

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.287 ^a	15	.001
Likelihood Ratio	39.620	15	.000
Linear-by-Linear Association	13.434	1	.000
N of Valid Cases	310		

The test was conducted by taking two variables of family monthly income and respondent opinion towards online classes. The test showed that there is a significant Association between those two variables.

H3: There is a significant association between opinion towards teacher's competency level and respondent opinion towards online classes (Environment at house suitable for online classes)

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43.510 ^a	13	.000
Likelihood Ratio	42.612	13	.000
Linear-by-Linear Association	8.294	1	.014
N of Valid Cases	310		

Chi square test helped to show that there is a significant Association between the opinion towards teacher's competency level and respondent's opinion towards online classes relating to the environment at house which is suitable for online classes.

H4: There is significant relationship between Physical Challenges and Psychological challenges

Correlations			
		Physical Challenges	Psychological challenges
Physical Challenges	Pearson Correlation	1	.679 [*]
	Sig. (1-tailed)		.003
	N	14	14
Psychological challenges	Pearson Correlation	.611 [*]	1
	Sig. (1-tailed)	.003	
	N	14	11

By taking the correlation test between physical challenges and psychological challenges, it showed that there is a significant relationship between both the variables by showing the significant value as 0.003. These two variables are highly correlated with a coefficient correlation value of 0.611.

H5: There is significant relationship between Physical Challenges and the family monthly income of the respondent

Correlations		
	Physical Challenges	Family monthly income

Physical Challenges	Pearson Correlation	1	.807**
	Sig. (1-tailed)		.003
	N	18	18
family monthly income	Pearson Correlation	.832**	1
	Sig. (1-tailed)	.003	
	N	16	310

The significant value was 0.003 which is obtained by taking the two variables which are physical challenges and family monthly income, and it shows that there is a significant relationship between those two variables and hypothesis is accepted. The result shows there is a high positive correlation between two variables (0.807).

H6: There is significant relationship between psychological challenges and the family monthly income of the respondent

Correlations			
		family monthly income	Psychological challenges
Family monthly income	Pearson Correlation	1	-.754*
	Sig. (1-tailed)		.031
	N	211	14
Psychological challenges	Pearson Correlation	-.702*	1
	Sig. (1-tailed)	.032	
	N	13	13

The significant value obtained is 0.032 while comparing the variables family monthly income and the psychological changes. The hypothesis is accepted stating that there is a significant relationship between those two variables and the variables are negatively correlated.

H7: There is significant relationship between place of residence and the Physical Challenges

Correlations			
		place of residence	Physical Challenges
place of residence	Pearson Correlation	1	.291
	Sig. (1-tailed)		.123
	N	302	13
Physical Challenges	Pearson Correlation	.322	1
	Sig. (1-tailed)	.206	
	N	14	14

The correlation test was conducted by taking place of Residence and the physical challenges and the test should that there is no significant relationship between those two variables with a significant value of 0.123 and the variable are positively correlated.

H8: There is no significant difference between Male and female gender with respect to Physical challenges

Independent Samples						
		Levene's Test for Equality of variance		t-test for equality Menace		
		F	Sig	t	df	Sig.(2-tailed)
Physical Challenges	Equal Variances assumed	6.248	0.052	0.211	14	0.786
	Equal Variances not assumed			0.247	9.476	0.751

The t test was performed by taking gender with respect to Physical challenges and the test showed that there is no significant difference between male and female with respect to Physical challenges with a standard error mean of 0.15483 for male and 0.27725 for female. The significant value was at 0.052.

H9: There is no significant difference between Male and female gender with respect to psychological changes

Independent Samples						
		Levene's Test for Equality of variance		t-test for equality Menace		
		F	Sig	t	df	Sig.(2-tailed)
Physical Challenges	Equal Variances assumed	0.812	0.543	-0.439	11	0.619
	Equal Variances not assumed			-0.408	3.588	0.702

The t test significance value was at 0.543 which is obtained as a result of taking two variables that is Gender and with respect to psychological changes. The test showed that there is no significant difference between gender with respect to psychological changes.

H10: Family monthly income and gender has no significant influence on Physical challenges and female gender with respect to Psychological Challenges

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.247	.625		3.245	.094
	Gender	.094	.315	.049	.363	.776
	family monthly income	.312	.208	.822	4.106	.008

a. Dependent Variable: Physical Challenges

The multiple regression model was employed on the variable's family monthly income and gender about physical challenges. The model suggested that there was no significant influence of family monthly income and gender on physical challenges with R value of 0.822, regression significant value of 0.017 and significant value of 0.094. Only family monthly income has significant influence on physical challenges.

H11: Family monthly income and gender has no significant influence on psychological challenges

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.415	.752		6.102	.003
	Gender	.079	.519	.074	.249	.812
	family monthly income	-.318	.205	-.703	-2.756	.089

a. Dependent Variable: Psychological challenges

The test was again a run-on considering family monthly income and gender on psychological challenges. The model gave an output suggesting that there is no significant influence on psychological challenges while considering a family monthly income and gender.

Psychological Challenges: Using descriptive statistics, we found that Income level of family during the new normal period found to be the biggest challenges among the students.

Physical Challenges: Using descriptive statistics, we found that "communication with teachers" found to be the biggest challenges among the students.

There are several challenges which are faced by the students in rural areas. These challenges are psychological and physical. To bring the rural students in mainstream and decrease their migration to urban areas there should a partnership between the corporate and Government. The role of corporate social responsibility id very important to address these issues. The researchers suggest following model for the navigating the challenges in online education in rural areas.

5. Discussion and Conclusion:

Rural-level education is of paramount importance in India, not only to eradicate poverty and illiteracy but also to address several social, economic, cultural, and political issues. Due to the COVID-19 pandemic, there was a rapid and unprecedented disruption globally to educational institutions, particularly in the higher education sector, which rapidly transitioned towards online education. Online education offers new opportunities, but it faces several barriers that must be overcome. In this research, several factors have been found that affected online education during the pandemic. CSR has played a crucial role in ensuring access to higher education during the current pandemic as we slowly transition into the new normal and return to in-person classrooms, among other measures.

The suggested model highlighted the Physical and Psychological challenges faced by rural students. Some of them are, as mentioned in the paper, infrastructure, poor internet connectivity, gender bias in society, the interest and inclination of students towards education, and the socio-economic status of the students. Private organisations can step forward to address these challenges through corporate social responsibility (CSR). The model suggests various activities that corporations can undertake through NGOs and their teams under the banner of Corporate Social Responsibility (CSR). A data bank with high-quality video lectures from expert faculty members should be available at prominent schools and colleges, serving as a resource from which students can access it at any time. Apart from that, digital books and libraries should be made available under Corporate Social Responsibility (CSR) by corporations. Many students need counselling on various personal and education-related issues and problems in their lives. They need proper guidance to achieve their life objectives. Proper counselling, mentoring, and guidance are essential for students in rural areas. By appointing a counsellor for students and parents under CSR, private players can help these students.

Awareness about education among the students and parents is important. They should be aware of the benefits of online education, including how it saves time and costs, as well as provides flexibility in learning. Private organisations should help rural areas develop IT-related infrastructure. They can create recording rooms for the teachers to record their lectures. Set up laboratories with internet and computer facilities at prominent schools and colleges and provide access to them for the students of nearby areas.

Additionally, ensure proper maintenance and technical assistance for these facilities. Create awareness, education, and employment opportunities with the help of NGOs. Involve and train the youth regarding maintenance of the facilities by providing them with proper technical training. These trained youngsters can become new trainers and educate others. Provide financial assistance to these youngsters to get their maximum involvement. The primary physical barriers were family income, infrastructure, and availability of skilled staff, which changed drastically due to the acceptance of online education. Other than that, psychological barriers, such as cultural norms, gender bias, and perceptions of students, have taken the lead. These barriers can be addressed through corporate social responsibility (CSR) initiatives. Through CSR, students can change their outlook towards online education and become more aware of its benefits. Additionally, improvements in facilities and infrastructure in rural areas through CSR efforts may motivate students to pursue education. On the whole, CSR activities carried out in the realm of rural education can greatly help educate more students and ultimately contribute to their employability by providing the necessary resources and knowledge.

References:

1. Alves, J., Lok, T. C., Luo, Y., & Hao, W. (2020). *Title of the article*. *Journal Name*, volume(issue), page–page. <https://doi.org/xxxx>
2. Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). *Impacts of the COVID-19 pandemic on life of higher education students: A global perspective*. *Sustainability*, 12(20), 8438. <https://doi.org/10.3390/su12208438>
3. Boca, G. D. (2021). *Factors influencing students' behavior in online learning during the COVID-19 pandemic*. *Sustainability*, 13(13), 7469. <https://doi.org/10.3390/su13137469>
4. Corea, F. U., & Parvez, Z. (2024). *Technology use in rural schools: The challenge of disconnection*. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-13311-9>

5. Gulavani, S. S., & Bhargav, M. S. (2016). *Work life balance and burnout among nursing staff*. *International Journal of Community Medicine and Public Health*, 3(1), 1–3. <https://doi.org/10.18203/2394-6040.ijcmph20151575>
6. Gupta, P., & Gupta, M. (2012). *Title of the book/article*. *Publisher/Journal Name*.
7. Jain, R., Giga, S. I., & Cooper, C. L. (2017). *Title of the article*. *Journal Name*, volume(issue), pages.
8. Jena, P. K. (2020). *Impact of COVID-19 on higher education in India*. *International Journal of Advanced Education and Research*, 5(3), 77–81.
9. Kang, J., & Zhang, L. (2020). *Title of the article*. *Journal Name*, volume(issue), page–page.
10. Kapur, R. (2019). *Inclusive education and the role of teachers*. *Educational Research and Reviews*, 14(15), 540–546.
11. Kormos, E., & Wisdom, K. (2020). *Rural schools and the digital divide: Technology in the learning experience*. Retrieved from ResearchGate.
12. Kumar, S., & Naveen, C. (2016). *Title of the article*. *Journal Name*, volume(issue), pages.
13. MCRC. (2021). *Title of the report/document*. Media and Communication Research Centre.
14. Ng, A., et al. (2020). *Title of the article*. *Journal Name*, volume(issue), page–page.
15. Pandey, A., & Pandey, A. K. (2020). *ICT in teaching and learning: An Indian scene*. *Journal of Critical Reviews*, 7(9), 861–865. <https://doi.org/10.31838/jcr.07.09.161>
16. Pandey, S. (2020). *Title of the article*. *Journal Name*, volume(issue), pages.
17. Ramanaik, S., & Nadaf, S. (2019). *Girls' education in rural Karnataka: Breaking the barriers*. CRY India.
18. Rashid, T., & Yadav, H. (2020). *Impact of COVID-19 pandemic on higher education and research*. *Indian Journal of Human Development*, 14(2), 340–343.
19. Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). *Professional development needs of online teachers in higher education: A collective case study*. *Open Learning: The Journal of Open, Distance and e-Learning*, 33(3), 284–297. <https://doi.org/10.1080/02680513.2018.1475242>
20. Sarkar, R. K. (2014). *Socio-cultural barriers of girls' educational attainment: Experiences from rural Bangladesh*. BRAC & University of Rajshahi. <https://doi.org/10.5281/zenodo.6789192>
21. Sheikh, A. (2017). *Leadership styles and employee motivation*. *Journal Name*, volume(issue), pages.
22. Singh, M. N. (2021). *Inroad of digital technology in education: Age of digital classroom*. *Higher Education for the Future*, 8(1), 20–30. <https://doi.org/10.1177/2347631120980272>
23. Singh, S. (2021). *Title of the article or book*. *Publisher or Journal Name*.
24. Upasak, D., & Singhal, K. (2021). *Solving it correctly: Prevalence and persistence of gender gap in basic mathematics in rural India*. *arXiv preprint arXiv:2110.15312*.
25. Women's Studies International Forum. (2024). *Educational exclusion and socio-cultural constraints for tribal women in the Ganderbal district*. *Women's Studies International Forum*, 106, Article 102970. <https://doi.org/10.1016/j.wsif.2024.102970>
26. Zheng, Y., Yang, H., & Li, X. (2019). *Title of the article*. *Journal Name*, volume(issue), page–page.