



PUBLIC-PRIVATE PARTNERSHIPS IN SCHOOL EDUCATION: CHALLENGES, OPPORTUNITIES, AND THE WAY FORWARD FOR INDIA

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Article DOI: <https://doi.org/10.36713/epra31190>

DOI No: 10.36713/epra31190

ABSTRACT

Background: Public-Private Partnerships (PPPs) have gained importance as a policy approach to address challenges related to quality, accessibility and equity of school education. In India, PPPs are seen as a medium to connect public objectives with private resources, technical expertise, innovation and management capacity. However, the effectiveness of PPPs depends on appropriate institutional arrangements, effective regulation, regular monitoring and accountability.

Objectives: The paper studies the scope, challenges and possibilities of PPPs in school education in India and particularly in Uttarakhand. Along with this, the role of NGO-led partnership has also been studied in the special context of the Hans Foundation and Titan Kanya+program.

Methods: The study reviews available literature, policy documents and empirical studies related to PPPs in education. In addition, the selected PPPs experiences implemented in India and the Titanya+program conducted in Uttarakhand have been analysed. The study has tested PPPs models, implementation challenges, programme Outcomes and policy applications.

Results: The study suggests that additional infrastructure, digital resources, academic support, teacher capacity building, career guidance and community participation can be promoted in school education through PPPs. However, there are major challenges like regulatory ambiguity, weak institutional capacity, accountability gaps, quality norms and financial and institutional sustainability. Uneven access to hilly terrain, remote settlements and educational and digital resources of Uttarakhand adds to these challenges. The programme offers a multi-faceted partnership approach, which includes academic support, life-skills education, career guidance, community-based learning and community engagement. There has been improvement in performance-level data, academic performance, student retention, career awareness, life-skills knowledge, content support and community participation.

Conclusion: PPPs can contribute to improving the quality of school education if they are properly implemented through appropriate institutional arrangements, effective regulation and clear public educational objectives. For successful PPP implementation, special attention is required on clear outcome framework, transparent accountability, effective monitoring, institutional capacity, long-term commitment and equity and inclusion. In geographically challenging states like Uttarakhand, PPPs can supplement government efforts by providing additional resources, expertise, innovation and community support. However, the objective of the PPPs should be to strengthen the public education system, not to replace it.

KEYWORDS: Public-Private Partnership; School Education; Educational Quality; NGO Intervention; The Hans Foundation; Titan Kanya+; Uttarakhand; Educational Equity; Policy Framework

1. INTRODUCTION

1.1 Background

Education is an important foundation for social development, economic growth, human capital building and welfare of the individual. Providing equitable and quality schooling to all sections in a large and diverse country like India is a major policy priority. National Education Policy (NEP) 2020 aims to bring about a paradigm shift in the education system. It focuses on improving access to education, equity, quality, affordability and accountability. At the same time, the policy has given special importance to the effective use of technology in infrastructure development, inclusion and education (Government of India, 2020). The current policy initiatives also focus on improving the quality of education while ensuring equal educational opportunities for the socially and economically disadvantaged sections.

Despite significant progress in the field of participation in school education, there are still many challenges related to the quality of learning outcomes, infrastructure, digital access, teacher autonomy and educational vision. According to the statistics of UDISE+ 2023–24, the primary unaided schools in India's school education system are important. There are over 3.31 lakh such schools in the country and about 9 crore students are studying (Ministry of Education, 2025). This situation reflects the growing role of non-government professionals in the field of school education. However, the expansion of private education does not ensure equal or better educational outcomes in itself. Therefore, the major policy challenge is to strengthen the quality of public education system and use resources and expertise in addition to non-government actors to strengthen the public education system and not weaken it.



Recent research provides mixed results with respect to the effectiveness of public-private partnership (PPPs). Evidence available in India shows that technology-based interventions designed and implemented properly can contribute to improving learning outcomes and student retention (Bandyopadhyay & Sharma, 2022). Similarly, international evidence indicates that proper institutional and regulatory performance can be improved, especially when the partners meet the infrastructure and management requirements (Arpino & Fernandez, 2025). However, PPPs can also raise concerns related to accountability, equity, public control and commercialization of education. So, the efficiency of the PPPs depends not only on the priority-sector participation, but also on the institutional design, regulation, monitoring and public-investigation of partnership.

1.2 Expansion of Private Participation in School Education

In the field of school education in India, Private participation has increased over time. As per UDISE+ 2023–24, India has more than 3.31 lakh recognized private schools. This shows the important role of the private institutions in the national school education system (Ministry of Education, 2025). Besides contributing to the expansion of education, private institutions have also promoted additional infrastructure, technology, alternative pedagogical practices and managerial applications.

However, the expansion of private education also raises important questions related to affordability, quality and social inclusion. The gap in the income of the family, geographical location, school infrastructure and access to digital resources can lead to inequality in the educational opportunities available to the students. This challenge is especially important for rural, remote, and economically disadvantaged communities where private educational vision cannot be limited or economically sustainable. So, Private participation should not be seen as an alternative to public education only. Instead, it is important to study how private resources, expertise, technology and innovation can complement public investment and strengthen educational outcomes.

This topic has become more important in the present times of digital transformation. The evidence available in India shows that technology-integrated interventions can help in improving teaching and learning, especially when there are an appropriate, pedagogy and institutional support with digital resources (Bandyopadhyay & Sharma, 2022). On the other hand, international research makes it clear that strong public interests are required in PPPs agreements, so that improvements in infrastructure and efficiency are not at the cost of equity and educational quality (Benade, 2025).

1.3 Public-Private Partnerships as a Policy Approach

Public-Private Partnerships (PPPs) are a possible means of linking public objectives with priority-sector resources, technical expertise, innovation and managerial capacity. In the field of school education, government agencies, private companies, non-governmental organizations, organizations, foundations, philanthropic organisations and other community-based institutions can work together. Through such partnerships, cooperation can be obtained in areas like school infrastructure, teacher development, digital learning, real education, vocational education, student mentoring, career guidance and community participation.

However, the available literatures make it clear that PPPs should not be considered a universal solution to all problems of public education. Their effectiveness depends on clear responsibilities, transparent contracts, measurable outcome, approach risk assessment, effective monitoring systems and public accountability. For example, a percentage study conducted in the Brazil found that the students at schools run under the PPPs agreements performed better in mathematics than the competitive traditional public schools. In the study, advanced infrastructure was considered to be a possible cause of this better performance (Arpino & Fernandez, 2025). On the other hand, the strategic scholarship indicates that if regulatory safety is weak, PPPs can promote public education standards or prioritization (Benade, 2025).

Therefore, appropriate policy approach for India is not to replace public education with a priority vision, but to develop carefully regulated partners that strengthen the institutional capacity of government schools. The PPPs should be connected to clean-defined educational outcomes, equity participation, transparent monitoring and long-term institutional capacity building. This approach is in line with the broad objectives of the National Education Policy (NEP) 2020, with special emphasis on equity, inclusion, Foundational learning, technology and equity participation of relevant stakeholders to improve educational outcomes (Government of India, 2020).

Indian experience also makes it clear that PPPs can be implemented in different forms. Previous studies have identified infrastructure partners, school management arrangements, government support for selected students and other contractual forms of Private participation in school education. Recent evidence also suggests that technology-oriented partners can provide additional opportunities for improving teaching and learning, especially when interventions are designed according to local educational (Bandyopadhyay & Sharma, 2022). Therefore, the success of PPPs depends on the specific model adopted and the institutional convergence of that model.

This subject becomes even more important for geographically disturbed regions like Uttarakhand. The problems related to the availability of availability of trained personnel, distributed sanitation, digital connectivity, digital infrastructure gaps and Qualified Educational Personnel pose additional challenges to public service delivery. In such circumstances, partnerships can be helpful in providing additional institutional and technical capacity with NGOs, foundations and other non - governmental authorities.



However, the main objective of such parties should be to ensure measurable improvements in public educational activities, social inclusion and student outcome.

1.4 Research Objectives

1. To examine the concept and major forms of Public-Private Partnerships (PPPs) in school education.
2. To analyse the current status, opportunities, and major challenges of PPPs in Indian school education.
3. To examine the role of PPPs and NGOs, particularly The Hans Foundation, in improving educational quality, learning outcomes, digital inclusion, and community participation in Uttarakhand.
4. To suggest policy measures for developing transparent, accountable, equitable, and sustainable PPP models in school education.

2. CONCEPTUAL FRAMEWORK

2.1 Defining Public-Private Partnerships- Public-private partnership in education means formal arrangements between government authorities and private organizations aimed at planning, financing, delivery, management and improvement of educational services. Private partners may include profit-making companies, non-profit organizations, funding, connections, NGOs and community-based organizations. From short-term contracts for PPP security services to financial investment, shared responsibilities and long-term partners sharing.

The main objective of the PPPs is to link public activities with the resources of private organization, expertise, technology and management capacity. In a proper PPP arrangement, the government determines public functions, quality standards and regulatory requirements, while the private partner provides necessary resources and special expertise. The feedback received from India shows that under certain circumstances; PPPs programmes can improve educational outcomes. For example, the presence of the Punjab shows that the PPPs schools performed better in value-added mathematics outcomes than the corresponding public schools, although this effect was not found to be the same in all subjects and disadvantaged groups (Ansari, 2024).

government can also improve efficiency by providing greater flexibility in the service delivery and by giving specific responsibilities to the organization having relevant expertise. However, the success of the PPPs depends on clean contract arrangements, transparent selection of private partners, effective monitoring and strong government duties. So, PPPs should be understood not just as a means to increase the private participation but as a governance mechanism through which public and private practitioners work together to achieve clearly determined educational objectives.

2.2 Types of PPPs in Education

In the field of education, many major forms of PPPs have been identified in the literatures.

1. Infrastructure PPPs: The primary sector is involved in the construction, development, renovation, operation and maintenance of school infrastructure. It may include development of classrooms, labs, libraries, digital facilities, sanitation facilities and other necessary school infrastructure. Where public resources are limited for capital investment, such partners can be useful. The feedback received from the Brazil shows that the developed infrastructure can be an important factor related to better student performance in the PPP schools (Arpino & Fernandez, 2025).

2. Status Management of Public Schools: In this model, the ownership of the school remains with the government, while the responsibility for the selected management and operational functions is given to the private organization. The private sector can play a role in education, academic management, teacher support or monitoring. Government maintains its regulatory and supervisory responsibilities. This model can provide additive management capacity but strong accountability mechanism is essential for this.

3. Outgoing of Educational Services: In this arrangement, government contracts with private or non-governmental organizations to provide specific educational services. These services can include real education, vocational training, digital learning, teacher training, assessment services, career guidance and learning materials. This is a flexible form of PPP, because services can be designed according to specific educational qualifications.

4. Technology and Innovation Partnerships Government institutions and private organizations work together to implement new technologies, teaching methods, digital learning platforms and innovative academic practices. Due to the increasing importance of digital education these kinds of partners are becoming more important. The evidence available in India shows that technology-integrated PPPs interventions can help in improving learning outcomes, especially when the digital content is prepared according to the students' needs and the support of applied teaching practices (Bandyopadhyay & Sharma, 2022).

5. Partners for Research and Academic Innovation: Under this model, public institutions and private organizations collaborate to develop, test and evaluate new academic applications, technologies, assessment methods and learning models. Such partners can promote innovation and help identify approaches that can be applied to other schools and regions. These different forms demonstrate that PPPs are not a single model. The appropriate form of partnership depends on the educational need, institutional capacity, financial arrangements, geographical conditions, and objectives of the government.

2.3 Theoretical foundations- The theoretical basis of PPPs in education is based on many interrelated perspectives. These approaches help understand the functioning of PPPs, potential benefits, institutional requirements and risks associated with them.

1. **Public Economics Perspective:** From the perspective of public economics, PPPs can improve the efficiency of public service delivery by connecting public resources with private sector expertise, managerial flexibility and performance incentives.



Competition and performance-based arrangements can encourage service providers to improve efficiency and quality. However, the realization of these benefits depends on effective regulation and regular monitoring.

2. **Development Perspective:** According to the development perspective, PPPs can act as a complement of limited public resources and help expand educational services. These can be particularly useful in areas where government institutions face financial, technical, infrastructural or human-resource training. However, the objective of the PPPs should be to promote universal access and due to this, additional barriers should not be generated for the differently abled students. The importance of assessing PPPs effectiveness on the basis of both educational access and quality has also been highlighted in a recent systemic-review protocol, especially in low- and mid-income countries (Ali et al., 2024).
3. **National Council of Educational Institutions** Institutional theory helps to understand how the government functions, organizational structures, regulation, rules and institutional practices are affected. For a successful partnership, there is a need for clear determination of institutional responsibilities, provision of operational regulations, effective coordination and performance monitoring. If the institutional capacity of government institutions is weak, the effectiveness of the PPPs arrangements can also be affected.
4. **Stakeholder Perspective:** The Stakeholder theory views education as a shared responsibility of government, schools, teachers, students, parents, community, NGOs and private organization. PPPs can provide opportunities to these stakeholders to participate in decision-making, implementation, monitoring and implementation. It can help in strengthening the transparency, accountability and community participation.
5. **Critical Perspective:** The PPPs can provide additional resources and expertise, but some important risks are also associated with them. The politics argues that excessive control of the private sector can reduce the role of government in public education and promote commercialization of education. If the private providers pay more attention to economic activities or better performing students, the PPPs agreements can also increase inequality in educational opportunities. Recent research also makes it clear that PPPs cannot be considered effective only by the presence of private participation. Their Outcomes depend on the design, regulation, implementation and accountability of the partnership (Ansari, 2024; Arpino & Fernandez, 2025).

Based on the above critical activities, the study looks at the PPPs as a pre-regulated partnership between public and private sectors aimed at improving educational quality, access, equity, infrastructure, innovation and learning outcomes. It accepts both the possible benefits and risks of the framework PPPs and considers the government regulation, institutional capacity, stakeholder participation, transparency and accountability as the key pillars of effectiveness of the PPP.

3. PPPS IN INDIAN SCHOOL EDUCATION

3.1 Current Status

Public-Private Partnerships (PPPs) in India have gained increasing importance as a possible tool to improve delivery of public services including education. However, the experience of PPPs in India shows that the effectiveness of these systems depends on appropriate institutional capacity, clearly defined responsibilities, effective monitoring and strong public accountability. The Government of India has set up a formal framework through the Department of Economic Affairs, Ministry of Finance for formulation, implementation and evaluation of PPP projects.

The available national PPPs data includes transport, energy, water and sanitation, social infrastructure and other sectors. So, the total number of PPPs projects at the national level should not be considered as number of education PPPs projects. Social and commercial infrastructure category includes education as well as health care and other public services. This development is important because education-specific PPPs over all are only a part of portfolio.

In the field of education, Government of India has acknowledged the importance of collaboration with non-governmental organizations, private institutions, organizations and other stakeholders. The National Education Policy (NEP) 2020 focuses on improving quality of education, strengthening school governance, promoting community participation, encouraging technology-based education and reducing dependencies in access and learning outcomes. The Ministry of Education has also focused various initiatives related to students and public-private partnership in school education.

The earlier PPP initiatives in India included various partnership arrangements like infrastructure development, school management, education service delivery, professional support and financial or other kind of assistance for selected students. The objective of these models was to achieve complementary resources of public resources through private participation and improve efficiency and quality of educational services (Kumari, 2016).

However, recent empirical evidence shows that academic PPPs have mixed results. A study on PPPs programs in the Punjab found that PPPs schools performed better than government schools in value-added mathematics colleges. On the other hand, there was no signatory advantage found in the English and Urdu and there was not enough evidence of the clear superiority of the PPP schools in the learning outcomes of the differently abled students. The study also found that foundation-assisted PPP schools showed relatively better results in mathematics (Ansari, 2024).

These findings indicate that PPPs cannot be considered more effective than self-government schools. The outcome depends on the type of partnership, quality of implementation, institutional arrangements, monitoring mechanism and the circumstances of the



students and schools concerned. Rest International evidence also supports this careful approach. A study on education PPPs in Brazil found positive effects on mathematics performance. The study also indicated that improvised infrastructure could be a potential cause for these better outcomes. At the same time, the study has emphasized the importance of appropriate regulation and Content-Specific Implementation (Arpino & Fernandez, 2025).

The subject of selection and monitoring of private partners is also important. The research carried out on PPPs in K12 educational facilities highlights the importance of transparent partner selection, risk assessment, technical evaluation and quality assurance during the entire project life cycle. Similarly, in centralized research, it was found that accountability is affected by various challenges related to contract, institutional, investment, trust and governance. The study emphasizes the need to develop a comprehensive accountability framework covering the entire life cycle of PPPs (2025).

Thus, the current status of PPPs in Indian School Education can be understood as a policy interest but uneven implementation and outcomes. Additional resources, infrastructure, technology, management expertise and specialized education services can be made available through PPPs. However, for their success, core policy framework, transparent participatory selection, measurable educational outcomes, effective monitoring, community participation and strong government outreach are essential. In particular, the objective of PPPs should not only increase private participation but also improve educational quality and equity.

These issues are particularly important for states like Uttarakhand. Unequal access public service delivery can be made more challenging to the digital resources and infrastructure gaps. So with the Nego's, Foundations and Responsible Private Organizations, they can provide additive support to government schools. However, such partners should be consistent with public educational objectives and should include clear mechanisms for equity, accountability, sustainability and achievement.

Table 1 presents the status of PPP projects in India across sectors.

Sector	Total Projects	Operational	Under Construction	Under Development	% Operational
Transportation	412	267	89	56	64.8%
Energy	345	198	97	50	57.4%
Water & Sanitation	189	112	45	32	59.3%
Social & Commercial (including Education)	139	72	38	29	51.8%
Industrial	128	65	43	20	50.8%
Others	326	164	102	60	50.3%
Total	1,539	878	414	247	57.0%

Source: Ministry of Finance, Government of India (2024)

Table 1 indicates that about 57% of PPPs projects in India are operational. The social and commercial infrastructure sector, which includes education, healthcare and other social services, has an operating rate of 51.8% which is lower than most other sectors. This indicates that there are more difficulties in implementation of social-sector PPPs. About 20.9% of the projects in this sector are in development stage. This social sector shows constant interest in PPPs, but also indicates challenges in bringing projects from planning to academic operation. Such delays in education can affect the timely availability of infrastructure and educational services and slow down the process of improvement required in student learning and academic quality.

3.2 Challenges in PPP Implementation

1. **Regulatory Ambiguity:** In the absence of clear and standardized regulatory guidelines, the quality of PPPs schools can be different. Different private partners can adopt different standards for curriculum, teaching, assessment and service delivery, which can cause inconsistency in educational quality and service delivery in various institutions.
2. **Weak Institutional Capacity:** Limited administrative capacity in government agencies and technical expertise may affect contract management, monitoring and evaluation. Weak data systems make it difficult to measure performance and ensure accountability.
3. **Quality converges (equal concerns):** PPP programs can be more focused on urban and economically developed areas where primary organization is relatively easy to work. As a result of this, rural, remote and disabled communities can get less benefit and educational qualifications can increase.
4. **Accountability gap:** In the absence of weak monitoring systems and clear performance indicators, student learning outcomes cannot be adequately addressed. Without regular assessment and performance-based mechanisms, it becomes difficult to determine whether the PPPs are achieving their assigned objectives.
5. **Commercialization risks:** Private partners can give more importance to financial interactions. Cost-cutting sessions can affect educational quality, while be-based or commercial observational models can create differences for both students and students. So, to ensure that strong public regulation is required to priorities educational activities than commercial interests.



Table 2: Key Challenges in PPP Implementation in Education

Challenge Category	Specific Issues	Impact on Education Quality	Reference
Regulatory Framework	Absence of standardized guidelines; unclear contractual arrangements	Inconsistent quality; confusion over responsibilities	Isha (2018); Kumari (2016)
Institutional Capacity	Weak administrative capacity; limited technical expertise	Poor contract management; inadequate oversight	Luthra & Mahajan (2013); World Bank (2018)
Equity & Access	Concentration in urban areas; exclusion of marginalized communities	Exacerbation of educational inequalities	Chavan & Qureshi (2025); RTE Forum (2025)
Accountability	Weak monitoring systems; lack of performance-based incentives	Inconsistent quality; low accountability	Muralidharan (2010); Patrinos et al. (2009)
Commercialization	Profit motive overriding educational goals; cost-cutting	Quality compromise; exclusion of poor students	Tilak (2016); Srivastava (2010)
Financial Sustainability	Over-reliance on external funding; insufficient public investment	Project failure; service disruption	PPP Study (2025); Karamakar (2020)

The study on PPPs in education in Table 2 summarizes the major challenges faced. Regulatory ambiguity is a major concern, as lack of common guidelines can lead to differences in educational quality and ambiguity of responsibilities. Weak institutional capacity affects contract management, monitoring and monitoring. Quality is also an important issue because the PPPs parameters can be more focused on urban and economically developed areas, while rural and divested communities can get limited benefits. Due to commercialization, the risk of cost-reduction or exclusion of students on the basis of financial interest remains. Financial sustainability is also an important concern, as greater reliance on external funding can affect the sustainability of projects. To address these challenges, continuous attention is required on clean policies, strong institutions, effective monitoring, sustainable financing and equity and educational quality.

3.3 The Uttarakhand Context

Uttarakhand is a Himalayan state in north India where geographical conditions create significant challenges for school education delivery. Along with the relatively easy fields in the state, there are extensive and widely dispersed settlements in the country. Difficult geographical conditions, distance beyond service centers and limited connectivity can affect access to educational facilities and learning resources especially in real estate areas. The research conducted on Inclusive Education in Uttarakhand also highlights the specific difficulties related to geophysical and socio-cultural conditions of the state in the face of rural and recreational communities.

In the rest of the area, teachers' ability is also important. UDISE+ data provides evidence related to the distribution of schools, enforcement and teachers in the state. At the same time, the presence of single-teacher schools reflects the need for constant attention to teacher autonomy and recruitment (Ministry of Education, 2025). In such circumstances it may be difficult to provide equitable and continuous academic support in geographically distributed schools.

Digital access is also an important issue. In a recent study conducted on the education system of the UTARAKHAND, it was found that students, teachers and parents faced difficulties in using online education especially during Covid-19 period (Pant al, 2024). Studies related to digital education in Uttarakhand have also focused on the need to reduce the digital divide between computer-containment and remote educational institutions (Kumar & Bhatt, 2025).

The impact of these challenges can be more on disadvantaged and remote communities. So, PPPs in Uttarakhand should be focused on locally relevant ones, which include school infrastructure, teacher support, digital facilities, learning resources, real education and community participation. Under-served areas should be prioritized in such partnership and evaluated on the basis of clear indicators related to educational access, quality, learning outcomes and sustainability.

Table 3 presents the educational indicators for Uttarakhand compared to national averages.

Indicator	Uttarakhand	India Average	Source
Literacy Rate (Overall)	87.6%	77.7%	Census 2011
Literacy Rate (Female)	81.5%	70.3%	Census 2011
Gross Enrolment Ratio (Primary)	99.8%	98.2%	U-DISE 2020-21
Gross Enrolment Ratio (Secondary)	87.2%	79.4%	U-DISE 2020-21
Student-Teacher Ratio	22:1	26:1	U-DISE 2020-21
Schools with Electricity	78.6%	84.2%	U-DISE 2020-21
Schools with Internet	42.3%	53.5%	U-DISE 2020-21
Schools with Computers	48.1%	56.8%	U-DISE 2020-21
Learning Outcomes (Class 5 Reading)	62.4%	58.2%	ASER 2022
Learning Outcomes (Class 5 Math)	55.8%	52.3%	ASER 2022



Table 3 shows that Uttarakhand is in a better position than the national average in many educational indicators. The state's overhead rate (87.6%) and female literacy rate (81.5%) are higher than the national average. Similarly, at the primary level the gross enrolment ratio is 99.8% and at the secondary level is 87.2% which is higher than the national data. The student-teacher ratio is also 22:1, while at the national level it is 26:1. However, infrastructure gaps related to electricity, internet connectivity and computer visibility are still there. Learning Outcomes have not reached the desired level despite being much better than the national average. Only 62.4% class 5 students' grade-level text and 55.8% basic mathematics. These ideas indicate that PPPs interventions should focus on improving digital infrastructure, infrastructure, infrastructure and overall educational quality.

4. NGO-LED PPP INTERVENTIONS: THE HANS FOUNDATION MODEL

4.1 Program Overview

The Hans Foundation is an important non-governmental organization that works to improve educational opportunities for disadvantaged communities. In Uttarakhand, it has implemented the Titan Kanya+ Girls' Education Programme in four government colleges of Udham Singh Nagar district in partnership with the Titan company. The objective of the programme launched in the year 2022 is to support the girl child from deprived and first-generation learner backgrounds through academic support, life skills education, career guidance and community engagement (Titan Company & The Hans Foundation, 2025).

The programme seeks to remove various obstacles affecting the participation of girls in education. These include limited information on early marriage, domestic responsibilities, limited educational support and future education and care opportunities. Under the academic component of the programme, systematic educational assistance is provided in subjects such as Science, Engineering, Mathematics, Economics, Geography and Computer Studies. At the same time, students are given guidance on subject selection and future academic planning.

The second major component of the programme is the Future Skills Education. This includes information on various important issues related to communication, decision-making, self-awareness, health, emotional management, time management, health management, health monitoring, online safety and girls. The programme also includes Career Guide through which students are given information about higher education and various care facilities. Recent research suggests that school-based Career Explorations can influence young women's career expectations and their approach to Gender-Related Social Norms (Chakravorty et al., 2026).

The third component is Community-based learning centers. These centres provide additional educational support and real learning facilities in local communities. These centres serve as a complement of school-based interventions and help in providing educational support to girls who need additional academic support.

Table 4 presents the key components and reach of the Titan Kanya+ Program.

Program Component	Description	Reach (2024-25)	Key Focus Areas
Academic Support	Structured curriculum; subject-specific coaching; academic planning	5,500+ girls	Science, English, Mathematics, Economics, Geography, Computer Studies
Life Skills Education	20 life skill modules; experiential learning	5,500+ girls	Communication, Decision-making, Health, Career Planning, Online Safety
Community-Based Learning Centers	Local educational hubs; accessible learning spaces	15 centers	Remedial education; community engagement; accessible learning
Career Guidance	Career planning workshops; mentorship; exposure visits	1,200+ girls	Career awareness; higher education pathways; professional guidance
Parent Engagement	Awareness sessions; community meetings; home visits	2,500+ parents	Importance of girls' education; reducing dropout; community ownership
Partnership Model	Collaboration between Titan Company, THF, and Government Schools	4 Government Girls' Inter Colleges	Multi-stakeholder collaboration; sustainable partnership

Source: Titan Kanya Program Social Impact Assessment (2025)

Table 4 shows that Titan Kanya+program takes a comprehensive approach to the education of the girl child. The programme reaches over 5,500 girls through 15 community-based learning centres in four government colleges. Under Academic Support, assistance is provided in various disciplines, while 20 life-skill modules include subjects like health, communication, decision-making and career-planning. About 1,200 girls are provided career guidance, which helps them in future education and careless learning. The programme also covers about 2,500 parents to strengthen community support for girl child education. This partnership between overall, titan companies, yes and government schools reflects a multi-stakeholder approach focusing on educational quality, inclusion and community participation.



4.2 Impact and Outcomes

The Titan Kanya+ Program has reached over 5,500 girls, demonstrating significant improvements in learning outcomes and retention rates, particularly among girls from marginalized communities. The program's structured academic interventions and stakeholder engagement have contributed to measurable improvements in learning outcomes and retention rates.

Table 5 presents the key outcomes of the Titan Kanya+ Program.

Outcome Indicator	Baseline	Current	Improvement	Target
Academic Performance (Average Score)	58.2%	72.4%	+14.2%	75%
Retention Rate (Grade 10 to 12)	62.5%	84.3%	+21.8%	85%
Career Awareness (Students with clear career plan)	28.6%	67.8%	+39.2%	70%
Life Skills Knowledge (Average Score)	45.3%	78.6%	+33.3%	80%
Parental Support for Education	52.1%	81.4%	+29.3%	85%
Community Participation	38.7%	72.5%	+33.8%	75%

Source: Titan Kanya Program Social Impact Assessment (2025)

There is an improvement in all outcome indicators of the table 5 to the Titan Kanya+ Programme. The academic performance increased from 58.2% to 72.4% i.e. an increase of 14.2% per centage points. The retention rate from GRAD 10 to GRAD 12 increased from 62.5 percent to 84.3 percent, which improved by 21.8 percent. The highest increase in carelessness was recorded, which increased from 28.6% to 67.8% i.e. Life-skills knowledge increased from 45.3% to 78.6% and parental support from 52.1% to 81.4% Community participation also increased from 38.7% to 72.5% Overall, these findings represent positive changes in academic performance, retention, carelessness, life skills, parent support and community participation. These results indicate that the integrated approach of the program can contribute to improving the academic participation and support of trained communities. However, these changes should be seen as program-level outcomes. Unless proper valuation design is available, these should not be considered as valid effects directly.

4.3 Key Success Factors

The efficiency of the Hans Foundation Model shows the contribution of many important factors. Long-term commitment helps in developing trust with time, strengthening the relationships and building institutional capacity. Its multi-dimensional approach, which includes academic support, life skills and community engagement, provides holistic support to students. Through the participation of parents and local stakeholders, the community partnership is strengthened, thereby promoting accountability and sustainable improvement. The focus is on measurable Outcomes through regular monitoring and evaluation, which supports accounting and contact improvement. In addition, the quality focus of the model gives priority to standardized and distributed communities, which helps to ensure that educational benefits reach the students who need it most.

5. CHALLENGES AND CRITICISMS OF PPPS IN EDUCATION

5.1 Critiques and Concerns

Despite the possibilities of improving education services, the PPPs have also faced critical criticisms in education. The main concern is that education can become market-oriented activity in place of a public service. Politics argues that commercial activities can be more important than the quality and social responsibility if priority organizations receive excessive control over academic planning. This can generate risks for students of low-income and divisible communities, especially when priority providers are encouraged to give priority to areas or students who are economically more profitable. The rest of the research on education PPPs has also highlighted the concerns related to equity, accountability and the possibility that market-based agreements can further enhance educational qualifications.

Another concern is likely to weaken public accountability. When responsibilities are shared between government and private organizations, it may be difficult to determine who is responsible for the use of educational quality, student outs and public resources. So, transparent financial arrangements, measurable performance indicators and effective governance monitoring are essential in PPPs statements. The PPPs should not be seen as a public education institution but as a mechanism to complement public vision with proper safety.

5.2 International Evidence

International evidence is mixed with respect to effectiveness of PPPs in education. The presence of Uganda presents an important example of this. The Government of Uganda implemented the See-free Second Education Policy to increase access to secondary education and formed partnerships with non-state schools through PPP arrangements. However, the study Ellison (2025) found that this policy did not completely eliminate the financial and structural barriers that exist before many students and in some cases, it further strengthened the observation patterns of exclusion. This indicates that increasing access through PPPs does not automatically ensure access to education.

In contrast, the PPPs from Colombia presents a more positive example of possible indirect benefits of investment. Polanco-Jimenez (2025) studied the PPP road concessions using student-level data and staged diffidence-in-difference approach. The study found



that the completion of the road projects led to an increase of 0.11 standard changes in the mathematics score 0.169 standard changes and reporting procedures. With this, there was an increase of 4.8% in the ratio of students entering higher education and a reduction of about 3%. These findings indicate that in infrastructure, PPPs investments, especially in rural and underserved areas, can improve educational outcomes by removing important barriers related to access.

The opposite evidence obtained from Uganda and Colombia shows that the efficiency program of PPPs depends heavily on design and context. The probability of giving positive outcome of PPPs is greater when they address partially identified public needs, set measurable probabilities and supported by effective regulation and monitoring. So, based on international expertise it cannot be concluded that PPPs are universally beneficial or harmful. Their effectiveness depends on specific programme design, implementation arrangements and local conditions.

5.3 Lessons for India

International evidence provides valuable lessons for India. First, there should be clear options of PPPs, including learning outcomes, educational qualifications, inclusion and student hearing. The main objective of the PPPs should not only increase private participation but also improve the quality of public education services. Second, performance standards and evaluation procedures in partnership arrangements should be clearly determined and regular monitoring of these should be done by compatriot or end public authorities.

Third, priority partners should be selected through transparent and competitive process. The selection should not only be based on lowest financial bias but also the ability to work with technical capacity, pre-emptive performance, governance standards, social responsibility and decentralized components. Information related to 4th, public funding, partnership activities, student outcomes and incremental assessments should be made available in the public domain. Strong transparency and accountability can increase public confidence and reduce the anxiety that PPPs are the medium of instruction.

Ultimately, PPPs in India should be developed as an extension of the public education system. While priority expertise and resources should be used to strengthen educational quality, equity, infrastructure and innovation, the primary responsibility of ensuring universal and non-disciplined access to education should be maintained by the government.

6. POLICY RECOMMENDATIONS

6.1 For Central and State Governments

- 1. Develop a Comprehensive PPP Framework:** Central and State Governments should develop clear and standard guidelines for PPPs in school education. In these guidelines, the role and responsibilities of government and private partners, conflicting aids, performance indicators, monitoring procedures and accountability mechanism should be clearly determined.
- 2. Strengthen Public Education Financing:** PPPs should be supplemented rather than substitute for public investment. Government should ensure adequate and continuous public funding for school education so that people should not become a subject of other responsibilities of government.
- 3. Focus on Equity and Inclusion:** Priority should be given to rural, remote, eco-friendly and socially disabled communities in the PPPs programmes. Special attention should be given to girls, SC/ST students and other vulnerable groups so that PPPs contribute to reduce them rather than increase educational qualifications.
- 4. Strengthen Monitoring and Evaluation:** The government should set up regulatory and end monitoring systems to assess PPP performance on the basis of clear indicators. These should include engineers such as enrolment, retention, infrastructure, digital access and student hearing.
- 5. Construction of National Institute Capacity:** Government departments should strengthen their administrative, financial, technical capacity for contract management of PPP projects, data analysis, monitoring and evaluation.
- 6. Encourage Long-term Partnerships:** Adequate time should be available for educational improvements in PPP statements. The duration of the partnership should be determined on the basis of the programme time outcome, objective outcome and assessment requirements. The duration should be fixed according to their requirement and nature rather than setting a uniform period for all PPP projects.
- 7. Strengthen Digital Infrastructure:** The digital capacity building of digital connectivity, digital systems, digital learning resources and teachers should be included in the PPP programmes. Special attention should be given to this in remote and under-served schools.

6.2 For Implementing NGOs and Private Partners

- 1. Priority should be given to the Community Engagement:** NGOs and Private Partners should include parents, teachers, students, local leaders and community organizations in planning and implementation.
- 2. Adoption of policy approach:** Life skills with academic learning, career guidance, digital skills and community participation should also be included in the academic intervention to support the overall development of students.
- 3. Ensure transparency:** Partners must provide clear information related to programmes activities, activities, financial resources, benefits and outcomes. Regular reporting should be made accessible to relevant stakeholders.
- 4. Construction of low local capacity:** Investment should be made on teacher training, professional development and capacity building of local staff, so that educational reforms can continue even after the end of external support.



5. **Ensure long-term engagement:** Partners must adopt long-term approach and develop sustainable plans from the beginning of the programme. The programme should not be permanently dependent on external support.
6. **Ensuring Quality:** The requirements of decentralized companies should be specially incorporated in the programme design. Special priority should be given to students residing in groves, SC/ST students, economically weaker sections and rest areas.

6.3 For School Administrators

1. **Ensuring transparent communication:** Schools must clearly inform teachers, students, parents and other stakeholders about the activities, activities, benefits and extricated outputs of PPPs programs.
2. **Conduct regular stakeholder meetings:** Regular meetings should be held with teachers, parents and community representatives to review the progress of the programme, identify problems and develop innovative solutions.
3. **Setting up of Resource Tracing Systems:** Schools should keep a transparent record of resources and their utilization through PPPs. This will strengthen accountability and help in effective management of resources.
4. **Strengthening Perspective Partnerships:** Partners should be given training opportunities in School improvement activities and decision-making processes. For this purpose, approach school-level committees and conflation mechanism can be used.
5. **Promotion of Career Awareness:** Schools should organize regular career guidance and counselling programs for students, especially students coming from schools and differently abled background. Such activities will help students to get a sense of urgency in respect of higher education, employment opportunities and Future Career Pathways.

6. CONCLUSION

Public-Private Partnerships (PPPs) can play an important role in addressing the challenges related to quality, access and equity of school education in India. The study suggests that government schools can be provided with advanced resources, technical expertise, infrastructure, digital support and educational services through PPPs. However, PPPs should supplement efforts to provide access and quality education by government rather than substitute public education.

The effectiveness of PPPs depends primarily on their design, implementation, institutional capacity and governance. The successful implementation of PPPs is a major initiative of the Government. Problems related to regulatory environment, weak institutional capacity, quality control and sustainability can reduce the effectiveness of the PPP Programme. So, priority should be given to rural, remote and differently abled communities in the PPP policies.

The Context of Uttarakhand, locally, explains the importance of propriate partners. The availability of geographics, access to infrastructure, digital connectivity and educational resources poses special challenges in the real estate. In such circumstances, partners with NGOs and other Non-Government Organizations can provide additive academic, technical and community-based support to government schools.

The experience of the Hans Foundation and Titan Kanya+ Programme illustrates an important multi-dimensional partnership approach. The programme connects academic support, life-skills education, career guidance, community-based learning and traditional engagement. The report shows improvement in academic performance, retention, career awareness, life-skills knowledge, content support and community participation. However, these changes should be seen as programme-level outcomes and should not be considered as self-causal effects in the absence of portable valuation design.

At the same time, PPPs should not become a medium of commercialization or prioritization of public education. Education should be inclusive and accessible especially for differently abled students. So, priority and non-government partners should work under the clear public-interest framework in which transparent responsibilities and measurable educational activities are determined.

Overall, the study indicates that PPPs can contribute to the educational improvement, if they are properly identified, ensure effective regulation, priorities social inclusion and get support of long-term institutional commitment. Appropriate approach of PPPs for India and especially for geographically challenging states like Uttarakhand is to strengthen public education system through priority expertise, resources, innovation and community participation. For long-term success of these partners, there will be a need to maintain a clear balance between efficiency, equity, accountability and public expression of education.

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