

Navjyoti India Foundation X ICG

As an NGO, Navjyoti India Foundation is using a Direct Service Delivery Model, which is effective in creating high impact but not scalable or sustainable in the long run. To address this challenge, IITK Consulting Group has been tasked with providing Navjyoti with a roadmap to adopt a scalable and sustainable model. Additionally, we have also been asked to explore partnership models from various organizations worldwide to determine the most suitable partnership approach for Navjyoti.

Problem Statement:

1. Currently Navjyoti is working on a Direct Service Direct Delivery Model, which is a high-impact model but is not scalable or sustainable. We have to provide them with a clear roadmap for adapting to a scalable and sustainable model.
2. We have also been asked to map partnership models from various organizations across the globe to see what kind of partnership model will work best for Navjyoti.

Solution:

We analyzed three models about how the current education model is based upon. The models are as follows:

1. Offline Education Model: The Offline Education Model refers to a traditional approach where education is delivered through physical means without relying on online or digital technologies. In the context of the Navjyoti India Foundation, this could involve setting up physical schools or learning centers in the communities they serve, where students attend classes in person and are taught by teachers or educators.
2. Online Interactive Teaching Model: The Online Interactive Teaching Model involves education through online platforms where teachers and students can interact in real-time using various digital tools and technologies. This model allows for remote learning, where teachers and students cannot be physically present in the same location but can connect virtually. The students would still be present in an offline setup, and the teaching would take place via a projector. As for the teacher, they would also be able to see the entire class live and interact with them just like in a regular classroom.
3. Online Non-Interactive Teaching Model: The Online Non-Interactive Teaching Model involves delivering education through pre-recorded lessons or digital content that students can access and learn independently without real-time interaction with teachers or peers. In the context of the Navjyoti India Foundation, this would mean setting up offline centers, where the students would learn. The only difference here would be that the teacher will be teaching via a video, and not live.

This analysis is based on the assumption that there are 40 students in a classroom and each of them have a 10 sq ft space as suggested by the RTE Act, 2009.

Based on the analysis of the following indicators, we can figure out the most suitable education model that aligns with Navjyoti's goals and can potentially create a meaningful impact.

Parameters:

1. Faculty Required:

- *The number of teaching faculty required for each model-* Online interactive model requires the maximum teaching faculty since catering to a smaller set of students would be more effective, given that the teacher is not present physically to cater to the class. A teacher in the offline model can cater to a larger class; hence, fewer teachers would be needed. For the online non-interactive model, we would need even lesser teachers. Once a faculty has recorded a video for one particular topic, it can be used over the years as long as it is relevant and no additional resources are needed. Although the non-interactive model does demand that faculties are available to clear up doubts.
- *Their skill level* - The most skilled faculty is required in the online non-interactive model since they'll have to manage recording lectures and make it interesting enough for the students. The best possible faculty can be approached for this model since their physical presence is not required. Skill set for the online interactive and offline models is almost the same, with slightly more for online interactive teachers as they require technical skillset to manage a class online.

2. Supporting Staff Required:

- *The number of people required to run the education model(per class of 50 students)* -
 - Offline model- 1 staff member for logistics.
 - Online interactive- 1 staff member for logistics, and 1 for technical support
 - Online non-interactive- 1 staff member for logistics, and 1 for technical support
- *Their required skill level* - For the online model, we would need people who are well-versed with computers and hosting online classes. We will need people who know the logistics of schoolwork for all three models.

3. Infrastructure Set-Up Cost:

- Infrastructure Set-Up costs may include various elements such as construction or renovation costs for the building or facility, installation of necessary utilities such as electricity, water supply, and internet connectivity, purchase or lease of equipment and furniture, setting up of communication systems, security systems, and other necessary infrastructure components. These costs are typically one-time or upfront expenses incurred during the initial establishment or expansion of a project or program

4. Maintenance cost:

- Regular maintenance cost of the building is the same for all models
- Teaching infrastructure cost
- Faculty cost and salaries
- Staff cost

5. Reach:

By reach, we want to cover how many students can be reached through the suggested model. A qualitative comparison of the three modes would give us a ranking order.

- *Offline education model:* Setting up completely offline centers and hiring people is a tedious and time-consuming task. Moreover, the availability of human resources might hamper the feasibility, and we might not be able to reach a wider area.
- *Online interactive teaching model:* While the online model would require an initial setup, the set-up would be one-time, and fewer human resources would be required. In the interactive model, however, for conducting live classes, we will have to ensure a stable and permanent internet connection, which might not be feasible in far-off and remote places.
- *Online non-interactive teaching model:* Providing recorded lectures would require the least human resources in this model. For this model, continued and permanent internet access would also be unnecessary. It would make this model the one that can reach the maximum audience in the remotest of areas.

6. Effectiveness of the method:

The various models would differ on how effective the learning process is.

- *Offline education model:* This is the most effective model. This is because the physical presence of an instructor keeps the students most engaged of all the models. It also ensures that the students can interact with the teacher as and when required.
- *Online interactive teaching model:* Since the teacher is not physically present, the teacher-student interaction reduces. However, since the classes are still live and the teacher and the student can interact, the model is still very effective.
- *Online non-interactive teaching model:* This model significantly degrades teaching effectiveness. This is because the teacher is never present to interact with the students. Doubt clearing takes a back seat, as the students and teachers are less responsive.

7. Cost per beneficiary:

- *Offline Model:*
 - A school of 200 students will require five faculty members. Considering the cost of one faculty @ 40,000 would mean 200,000 per month. This will translate to INR 1000 per student per month or **INR 12,000 per student annually.**
 - [Requirement of one faculty for a class of 40 students is considered]
- *Online interactive model:*
 - In this model, one faculty member can cover five classes of 40 students simultaneously thus, the cost of faculty will reduce to 20% of the offline model. So similar faculty of 5 can take care of 5 schools of 200 students, and the cost of faculty will be 2,400 per student annually instead of 12,000 per annum per student.

- Besides this, there would be a requirement of 5 staff members, @10,000 for a school of 200 students, translating to INR 250 per student per month and effectively 3000 per year per student.
 - [In this case, one staff is considered per class of 40 students. This staff would be of moderate skill having some subject knowledge; even higher-class students can take care of this requirement, and cost can further be reduced.]
 - Additionally electronic projector cost per classroom would be around 100,000 for 5 classrooms INR 500,000. This electronic media would have a life of 5 years, translating per annum INR 1,00,000 divided over 200 students, which would mean INR 500 annually.
 - Internet cost subject to availability of local provider can be taken as 20,000 annually, which would mean INR 100 per student.
 - So the total cost of this model would be (INR 2400+3000+500+100) **INR 6000 per student annually.**
- *Online non-interactive model:*
- Cost of developing material: Navjyoti India should not try to develop their own resource. They should get this resource through Byju's, Physicswala, or some similar coaching institute. They can also partner with them, and their cost can be reduced drastically/ can even be free of cost. Considering one-time development cost per class, say classes 1 to 12 for various subjects, as this does not change very frequently. We may consider this tie-up cost, say, INR 100 Lacs per year. This material can be utilized by virtually any number of students (subject to licensing provision), Considering that Navjyoti will reach out to 10,000 students. Thus the cost per student will be INR 1000 per student.
 - All the other costs will be the same in this model as in the online interactive mode; hence, the total cost would come down to (INR 1000 + 3000 + 500 + 100) **INR 3600 per student annually.**

Hence the third model is the most cost-effective, and scalable and would have one of the best content from reputed coaching institutes.

Further here is a table for better understanding

	Offline Model	Online Interactive Model	Online Non-Interactive Model
<i>Faculty Cost</i>	1 faculty per class of 40 students @ 40,000 per month. Annual Cost of INR 12,000 per student	1 faculty for 5 classes 200 catering to 200 students @ 40,000 per month. Annual cost Inr 2400 per student.	For material tie-up with the reputed coaching institute @ 100 Lacs per year for 10,000 students. This would include online doubt-clearing sessions with their teachers. The cost per annum per student Inr 1000.
<i>Staff</i>	Not taken assumed that faculty will take care of this	1 staff per class of 40 students @ 10,000 per month. The annual cost of INR 3000 per student.	1 staff per class of 40 students @ 10,000 per month. The annual cost of INR 3000 per student.
<i>Additional Electronic Infrastructure</i>	Not required	Cost of electronic projector Inr 1 lac per class of 40 students. This will be good for 5 years. Annual cost per student Inr 500.	Cost of electronic projector Inr 1 lac per class of 40 students. This will be good for 5 years. Annual cost per student Inr 500.
<i>Internet Expense</i>	Not required	Inr 20,000 for the school of 200 students per annum. INR 100 per student per annum.	INR 20,000 for a school of 200 students per annum. INR 100 per student per annum.
<i>Effectiveness</i>	Good	Good	Very Good

<i>Scalability</i>	Poor	Good	Very Good
<i>Total Cost</i>	Inr 12,000 per student per annum	Inr 6000 per student per annum	Inr 3600 per student per annum

8. Scalability:

Once established in the location of interest and all the online content is done, scalability can be divided into 3 parts:-

- a) *Offline Model*- We need to get infrastructure and faculty everywhere wherever we wish to expand. This is not very cost-effective as requires a lot of human resources and capital.
- b) *Online Non-Interactive Model*- In this model, since the content will already be available, it will be much easier to scale. It will require infrastructure for the classes and staff support at the center.
- c) *Online Interactive Model*- This is similar to the offline model but sourcing the faculty will be easier as they can be anywhere and teach. This requires better logistics and technical resources to broadcast lectures.

9. Sustainability:

- *Offline Model*- To sustain the offline model, the main challenge would be its setup and maintenance cost, which will be high compared to the other models. Moreover, the human resources required are more compared to the other models. However, once set up, the model can run smoothly at the particular location given that the faculty is managed well.
- *Online Interactive Model*- Online interactive model is somewhat similar to the offline model in order to sustain it, it requires the faculty with a constant workforce to deliver lectures, and technical resources are also required on a good scale in order to deliver live lectures.
- *Online Non-interactive model*- Online non-interactive is easier to sustain as it requires a one-time investment of faculty and their educational videos can be used as long as needed. The supporting staff/class help while the lectures are going on is the only constant resource needed.

Score for each model in each parameter 1 being most preferred

	Offline Education Model	Online Interactive Teaching Model	Online Non-Interactive Teaching Model
Faculty Required (Number)	3	2	1
Faculty Required (Skills)	1	2	3
Supporting Staff Required (Number)	3	2	1
Supporting Staff Required (Skill)	1	2	3
Infrastructure Set-Up	3	2	1
Maintenance Cost	1	3	2
Reach	3	2	1
Effectiveness	1	2	3
Cost per Beneficiary	Rs. 12000	Rs. 6000	Rs. 3600
Scalability	3	2	1
Sustainability	2	3	1