

Digital Empowerment Foundation's Chanderiyaan Project: linking the poor producers with the market using ICT

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Nowadays, the numbers of master weavers have been increasing, because once the weavers are earning more money, they are directly going to the market. In earlier days, five to six weavers would capture the whole market, but the scenario has changed. Now everybody becomes master weavers; they are collecting orders from 20-25 family weavers and directly going to the market (Osama Manzar on the situation of Chanderi weavers post-DEF's intervention).

Osama Manzar, the founder of the non-governmental organization (NGO) the Digital Empowerment Foundation (DEF), began thinking long and hard if it was time for him to exit Chanderi. It was 2012, and the sustainability of his NGO's efforts in Chanderi in the previous three years was under the scanner. In 2009, DEF started its work on reviving the diminishing and struggling traditional and local handloom art form of Chanderi in Madhya Pradesh. The aim was to disentangle the poor handloom weavers from the exploitative practices of their rich intermediaries and make the poor weavers self-reliant. With the help of information and communication technology (ICT), DEF aimed to enhance their livelihoods by upgrading the skills of poor weavers and enabling them to reach out to the markets for handloom products. However, at some point, DEF had also to decide whether its external intervention at Chanderi was bearing fruit and if further intervention was required, or if it was time to exit the project.

In 2009, DEF was approached through Media Labs Asia (MLAsia) about partnering with the Ministry of Communication and Information Technology (MCIT) with the prime objective of reviving the dying handloom craftwork of Chanderi and subsequently influencing the social as well as the economic sustainability of the poor weavers in that locality to make them self-reliant. This resulted in the founding of the Chanderi Weavers ICT Resource Centre (CWIRC) to serve as a self-sufficient community information resource center. The CWIRC was integrally involved in enhancing weaving and designing skills, improving infrastructure, including the use of technologically advanced machinery, enabling the weavers in turn to connect directly with urban markets through an e-commerce portal, thereby eliminating any middlemen. The CWIRC also took it upon itself to train and educate the local community in basic computing and digital skills, promoting Chanderi as a tourism destination in Madhya Pradesh and enhancing considerably the local healthcare facilities. This dedication coupled with the utmost sincerity and focus of Osama Manzar (CEO and Founder of DEF) and his team yielded outstanding results. In the next three years, CWIRC grew significantly in terms of the production of local handloom products, progress which was earned handsomely without the intervention of any third party, resulting in much-improved lifestyles for the local weavers. Elated at this success, Osama had said: "Nowadays the numbers of master weavers have been increasing, because once the weavers are earning more

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money, they are directly going to the market. In earlier days, 5-6 weavers would capture the whole market, but the scenario has been changed. Now everybody becomes master weavers, they are collecting orders from 20-25 family weavers, and directly going to the market”.

However, the foremost concern for Osama and DEF was the timing of their withdrawal after three years. Osama contemplated: “If DEF withdraws immediately having completed three highly successful years, all their developmental efforts may go in vain, and the weavers would again fall prey to exploitative intermediaries wherein the art along with their livelihoods would suffer. On the other hand, if DEF waits too long and continues handholding this community, then their dependencies would increase”. “Was it time to exit Chanderi?” was the question that was going through Osama’s mind day in and day out. His ambition was to time DEF’s exit appropriately and showcase its success to the Ministry to go on to prove that, with external ICT intervention, this model was indeed replicable.

However, being practical and pragmatic, Osama looked to assess the sustainability of this ICT-led market-linkage project. The timing of DEF’s exit depended largely on his assessment of the project’s sustainability. Historically, non-profit interventions have also resulted in situations worsening for the targeted beneficiaries; a premature pullout could be counterproductive, even from DEF’s perspective, if it wanted to showcase Chanderi as a model of intervention.

The Chanderiyaan project

DEF is NGO registered since 2002 under Societies Registration Act XXI of 1980, managed by its own board of directors, a governing body and team members. Founded by Mr. Osama Manzar, the organization works with the prime objective of empowering the poor through economic, social, technical and educational development using ICT. Since 2003, DEF had initiated several groundbreaking projects in diverse areas of social and economic development using ICT in some form across various schemes in India. Some of their pet projects have included Neerjaal, Digital Panchayat, Internet Rights, Mobile for Good, the Community Information Resource Centre (CIRC) program, Soochna Seva, Wireless for Communities, e-Heritage, etc. The CWIRC was another such successful DEF initiative. The wonderful work of DEF has also been recognized and acknowledged nationwide, and they are the proud founders of the Manthan Awards along with the mBillionth Awards for e-content practices.

In 2009, DEF set up the CWIRC as a self-sufficient community information resource center. The products manufactured and sold included saris, dopattas, stoles, *salwar* suits and the famous Chanderi fabric. The market development process was driven with the larger objective of reducing the weavers’ dependencies on unscrupulous middlemen, who kept them from reaching out directly to the market. In less than three years, many families were actively participating in the market with their finished products. While the weavers earned approximately Rs. 3,000 per month or less on average with middlemen eating into the larger part of the pie, with CWIRC their income rose to about Rs. 5,000 to 6,000 per month – an income not dependent on any third party and an income which these weavers could call their own in every sense.

With more than 4,000 looms in Chanderi (out of these only 25 were provided by DEF to very poor weavers, and the rest were sourced by weavers either on their own or they belonged to master weavers), almost every household had a handloom or two. Weavers practiced their traditional art to weave cloth fabric, which was eventually sold to the patrons of Chanderi fabrics and garments. With a population of 33,000 (as per the 2011 census), almost one-third was engaged in the traditional Chanderi handcraft, largely as weavers involved in different production stages, such as raw material design, working, coloring, selling and so on. More than 60 per cent of the looms belonged to Muslim families, who were totally dependent on weaving and loom-based incomes. Handloom product

development in Chanderi was not only a traditional artwork style, but also the sole source of sustenance and survival for the weavers, many of whom did not have the purchasing power to buy raw materials and thereby obviously could not afford their own looms. As a result, they did not even have the skills required to create their own designs or even approach customers for orders and that is where they were being thoroughly exploited by middlemen until DEF's intervention with ICT.

Even just a few years back, Chanderi was perceived to be underdeveloped, with rampant poverty, uncertain incomes and low living standards. In the absence of market-based developmental initiatives, with meager sales, limited working infrastructures and relative isolation from the market, the weavers of Chanderi stared at a very bleak future for themselves and their families and children. Naveed (a local) recalls:

Earlier, middlemen did not have much control here at Chanderi; but lower wage rates forced us to take loans from the middleman who later started exploiting us as free labor being burdened with huge loans.

It was at this juncture that the Scindia family of Gwalior intervened requesting help from the MCIT of the Government of India (GoI). The GoI further invited MLAsia, who in turn roped in DEF to help revive the dying Chanderi art form and, thus, Chanderi's weaving community. DEF entered Chanderi to try and bridge the economic, temporal, spatial, market and knowledge separations that had divorced Chanderi from the formal economy, sustainability, freedom and opportunities. See [Table I](#) for the stakeholders' activities.

The project was branded as *Chanderiyaan*. An internet-enabled resource center, named the Chanderi Weavers ICT Resource Centre (CWIRC), was started by DEF in collaboration with MLAsia for providing technical education to the textile weavers with a resource bank of 30 computer centers that helped create new designs by using special computer-aided design (CAD) software. CAD software helps in the creation, modification, analysis or optimization of a design. (See [Table I](#) for the setup of a training center at Chanderi.) Simultaneously, DEF also began an exercise to preserve old traditional handloom designs digitally, so the CWIRC can now boast of having more than 15,000 old and new fabric designs. Weavers, on the other hand, with the help of design printouts created by them, began putting the designs into their looms. The design digitization process had drastically reduced the temporal separation between design and production and, thereby, the

Table I Stakeholders' activities in the Chanderi weavers ICT resource center (CWIRC)

	Stakeholders					
Goals/mission	Activities	Designing	Weaving	Apparel production	E-commerce and retails	
Earning money through sustainable livelihood	Chanderi community	Learning and creating design on the computer	Putting that design into the handloom	Preparing final products	Present at retail shop for selling	
Empowering people through information	Digital empowerment foundation	Providing training for computerizing textile designs	Providing raw material linkages	Proving space for stocking the final product	Selling though e-commerce	
Establishing and facilitating ICT application	Media Lab Asia	Media Lab Asia is supplying all the ICT resources– card punching machine, CHIC, CARPET and CAD software. Trained 12 master designers for helping weavers			NA	DEF and Media Lab Asia have jointly built up e-commerce website
Promoting of electronics and IT-IT enable service industry	Department Of Information Technology Govt. of India	Proving fund and monitoring on CWICTRC project				

economic separation too. In other words, a design which typically took about 7-8 hours manually was now being developed within an hour; moreover, if a similar design was desired for some other loom, it was a print away. Thus, in a market totally dependent on daily wages, the digitization of designs using CAD and card-punching machines exponentially benefitted the weavers' community of Chanderi.

The Chanderiyaan project had managed to develop the knowledge and skills of the poor weavers in several ways, including via its Skill Builder Program, the forming of self-help groups, the provision of handlooms to the poorest of the lot and via training in block printing and Kalamkari art. The ICT deployment also included tailoring, weaving and embroidery work along with the intervention of hardware in the form of plotter printers and card-punching machines (for easing the weaving process). (See [Exhibit 2](#) for an operational setup at Chanderi.) The center had so far trained more than 150 people in the weaving process on looms, in embroidery work and in block printing on clothes. A Jacquard block-printing machine was also procured to print weaving designs on clothes; more than 130 people had been trained on computerized integrated embroidery designs providing end-to-end solutions.

Among the activities^[1] that were initiated under the CWIRC, there was the Skill Builder Program, whose prime objective was to familiarize the weavers and the local youth with the growing ICT trends, their importance, application and resourcefulness. This program taught the learners about various computer-related applications, relevant to their environment. Another program, called the English Relay Program (ERP), trained children in basic English language skills and later in the competent use of English for academic purposes and daily use. An ERP application looked to develop a great sense of confidence among the 1,000 participants. Under the Computerized Pattern Design (CPD) program, the Wonder Weave software was customized according to the requirements of the weavers to reproduce traditional patterns and also combine myriad existing designs to create new patterns. More than 500 designs have been developed and archived so far. The other special initiative undertaken by DEF was to encourage more weavers to engage themselves in loom activities by giving looms to the financially weaker sections of weavers. DEF also got engaged in designing apparel by organizing an intensive training course to acquaint the women, especially with the basics of sewing and stitching and also train them in the intricacies of both textile and apparel designing. DEF also introduced block printing and Kalamkari as two of the most sought-after techniques for fabric decoration. The block-printing unit at CWIRC was manned by skilled artisans who have been working their magic ever since.

The Chanderiyaan initiative launched an e-commerce website to market and sell Chanderi products globally with an online payment option and a virtual shopping rack. The portal www.chanderiyaan.net was expected to become a virtual mall for all the weavers and suppliers from Chanderi. The portal (www.chanderiyaan.net) provided weavers with direct access to urban markets. Each Chanderiyaan product was marketed through this portal, and customers could order these products online, with doorstep deliveries, nationally and internationally. (See [Exhibit 3](#) for screenshots of the Chanderiyaan e-commerce portal.) The portal had already attracted orders from across the country and had managed online sales of more than Rs. 250,000 in its first six months of operation.

In an effort at community development, and with the idea of promoting self-reliance via market processes, the CWIRC actively promoted the formation of self-help groups (SHGs) to create ownership, entrepreneurship and also create long-term sustainability for the Chanderiyaan project. More than 30 groups with a total of 250 members were active in the various activities of Chanderiyaan in the CWIRC. One of the founders of an SHG at Chanderi revealed:

We empowered ourselves to fight against the middlemen and formed [an] SHG. We started to create distance with the middlemen and tried to stand by our own power. So, I created Tana Bana SHG. Eleven families are part of this SHG and I have chosen the best persons in their fields for my SHG, which includes [a] weaver, designer, drawer, salesperson and

cost master. We started to work with 17,000 rupees capital and at present we have 33 looms with a total of 20 lakh working capital. We have an SHG and we are working with each other. We have gone beyond 11 members and have invited other weavers to join us. We offered them Rs. 350 per weaving instead of the prevailing rates of Rs. 50. In this way, we created domination over the middlemen and our income increased, thereby building unity among us, the weavers.

Another program, named the Chanderi Integrated ICT for Development Program (CIIDP) promoted healthcare, education and tourism, thereby strengthening the overall development of Chanderi. The initiative expanded its activities in human development sectors too. A telemedicine software, e-Dhanwantari, was deployed at Chanderi's Public Health Centers and at Ashoknagar's district hospital by getting facility space there. Multipurpose medical equipment such as a Vital Track Telehealth kit and an Element Six kit, which were portable, simple and affordable tools for remote patient monitoring, were installed at the Chanderi Community Health Centre (CHC). (See [Exhibit 4](#) for a picture of a healthcare unit at Chanderi.) With the help of this software and medical equipment, medical tests were performed and electronic medical records (EMRs) of the patients were created and stored in local and remote databases. Health telephone hotlines were set up for suggestions and prescriptions from city doctors. A cardiology module that would use the vital signs medical equipment for monitoring various medical parameters was also installed. One management staff member at a local health center remarked:

We have procured the best multipurpose equipment, which are being used to perform multipurpose tests. We have also procured the required hardware including desktop, printer, digicam, etc. With the help of this software and medical equipment, medical tests will be performed and EMR[s] of the patients created, [and] stored in local and remote databases.

MLAsia, which is one of the chief partners of the Chanderiyaan project, had deputed Dr Abdul Ayez Quereshi as the healthcare coordinator for the CIIDP project at Chanderi. He performed telemedicine operations at the patient end, created EMRs for each patient with the help of software, performed medical tests using medical kits when required and sent the patient data to specialist doctors at the district hospital in Ashoknagar for expert medical consultancy and advice for patients at the CHC.

Chanderi had thus far had an untapped tourism market, which could be harnessed using ICT technologies. Chanderi's digitization program, launched by the CWIRC, developed a Chanderi tourism website (www.chanderiheritage.in) that enabled tourists to identify various tourism spots easily and also provided various other support related to information about tourist spots, accommodation and "how to reach" navigation routes. The website also showcased the rich heritage and culture of this "Town of Weavers" (See [Exhibit 5](#) for a screenshot of the Chanderi tourism website). The website framework was also ready for including a gallery to showcase 300-odd monuments and artifacts. There were ongoing projects running for more content additions to the gallery by getting inputs from the field. After the initiation of the CIIDP, a customized Chanderi development portal (www.chanderiyaan.org) was launched in an effort to showcase the effects of ICT interventions in Chanderi, their outcomes and impacts (See [Exhibit 6](#) for a screenshot of the Chanderi development portal).

Ultimately, the project also impacted the education program in Chanderi by procuring computers for ten schools and three madrassas along with wireless internet connection facilities. Basic computer skills along with educational content were provided to 20 teachers at these madrassas and schools, and close to 800 madrassa students were also trained in basic computer skills. Virtual life science and mathematics preparation guide applications were installed in schools for the benefit of the students.

Chanderi handloom supply chain

The weavers ultimately wanted to pursue a sustainable livelihood that provided greater income. DEF thereby drew up a streamlined supply chain by actively involving the weaving communities in the weaving activities that passed through steps such as designing, weaving, apparel production, e-commerce and retailing.

Broadly speaking, there were three stages in the supply chain – sourcing, manufacturing and retailing. At each stage of the supply chain, DEF reduced market separations (See [Table II](#) for the CWIRC supply chain and its effect on market separations). It should be reiterated that after DEF's intervention at Chanderi, they provided more than 30 handloom machines to the poorest weavers to enable them to weave and earn a livelihood, thereby reducing their spatial and financial separations. The procurement of raw materials was another important aspect of weaving, where DEF provided linkages, which again helped in reducing the financial separation that had existed. DEF got permission from the municipality to use the premises of the famous Raja Rani Mahal, which was then used by the weavers for weaving, designing and training purposes.

The weavers learnt to create new designs in computers at the internet-enabled resource center, which were put into the handloom for weaving. The finished products were sold through retail outlets and exhibitions. DEF exercised a fair amount of control over all these activities. Their mission was to empower people who were engaged in these activities by bridging the information gap. DEF also imparted training on computerized textile design. Once the final products were ready, DEF provided space to stock these products and went on to promote these products through the e-commerce website. Some of the master weavers had a sales team of their own who would make trips to bigger towns for exhibitions. For others, DEF facilitated participation in trade exhibitions in nearby towns.

Further, DEF helped weavers with retailing and marketing. Through the e-commerce website, customers could purchase products anytime and anywhere, with doorstep delivery. Chanderiyaan also promoted its products through social media engagements, newsletters, regular interactions with previous customers and tie-ups with boutiques in different cities. Considering that the initiative was an attempt to empower the communities of Chanderi, the prices of the products were kept below the market prices to facilitate greater sales and thereby generate greater income. Chanderiyaan also targeted the local purchasers and tourists through its local shop located in their official premises.

MLAsia, being the chosen partner of the MCIT, Go I, played its role by establishing and facilitating the ICT applications with the sole objective of reviving the traditional handloom market. MLAsia supplied all the ICT resources such as card-punching machines, CAD and other such software. They also trained 12 master designers to assist the weavers, keeping in mind the Indian government's initiative to introduce and promote ICT vigorously, to which end as a matter of fact, the MCIT did provide funds and also kept tabs on the progress of the CWIRC project at every stage, that is, from production to delivery to the end consumers.

Decision situation

Exit decisions are very hard for NGOs such as DEF, as they intrinsically involve themselves in these projects and, therefore, the trade-off between maintaining the sustainability of the intervention while at the same time reducing intervention costs remains a thorny issue. From the perspective of Chanderi and its weavers, the Chanderiyaan project helped the community develop capabilities to build market links by reducing market separations; it positively impacted their social, economic and cultural well-being (See [Table III](#) for the project benefit analysis of Chanderiyaan.) For example, the reduction in spatial market separation (physical distances between buyers and sellers) was achieved by participating in exhibitions or by selling the produce to master weavers to sell at such fairs. This was a major departure from the past, when the poor weavers not only got very low weaving

Table II CWIRC supply chain and its effect on market separations

Table II CWIRC supply chain and its effect on market separations										
Separation	Sourcing			DEF-SHG supply chain				Retail marketing		
	Supply chain	Hand looms	Raw material	Weaver	Designing	Weaving	Embroidery		Block printing	
Spatial separation		Bridging the physical gaps between looms manufacturers and weavers	Bridging the physical gaps between raw material manufacture and weavers	Formed SHG for work together	Earlier weavers might go to other places for computer design training. Now in Chanderi	Learning new weaving patterns in Chanderi	Started recently by DEF	Started recently by DEF	Created e-commerce website by DEF and MLA	
Temporal separation		NA	Purchased from faraway location thus consuming more time	Working together at one place, saving time	Production time reduced by DEF and MLA	Jacquard Card Punching machine helps reduce weaving time	Started recently by DEF	Started recently by DEF	Buyer can buy products any time from home	
Informational separation		Earlier Weavers did not know from where to buy low priced hand looms	Earlier weavers did not know where to buy low priced, good quality raw materials	DEF allocate weavers to work with them	Adopt new designing technology	Adopt new weaving patterns	Started recently by DEF	Started recently by DEF	Bridge by DEF and MLA	
Financial separation		Weavers did not have enough money for purchase handlooms	Government funds used on raw material purchase	Weavers now have a fixed salary with incentive	Insufficient money for learning	Insufficient money for learning	Insufficient money for traveling and learning	Insufficient money for traveling and learning	Profit sharing with SHG	
Capability separation		Bridging separations by DEF	Bridging separations by DEF	Bridging separations by DEF	Bridging separations by DEF and MLA	Bridging separations by DEF and MLA	Bridging separations by DEF and MLA	Bridging separations by DEF and MLA	Bridging separations by DEF	
		Increase knowledge about using hand loom	Become efficient in judging and purchasing raw material	Increase knowledge about new weaving pattern	Designing in computer increasing weavers' capability	New weaving patterns increasing weavers' capability	Learning new technique increasing weavers' capability	Learning new technique increasing weavers' capability	Knowledge about how to sell products	

Table III Project benefit analysis of Chanderyaan

Activities	Problem addressed/initiative taken	Benefit	Type
Provision of handlooms	Lack of purchasing power to buy a loom	Weavers (25 handlooms installed presently)	Economic
Space for weaving	Unavailability of space to install a handloom	Weavers	Economic
Provision of raw materials	Lack of purchasing power to buy raw materials	Weavers (Saves Rs. 700-800 on each product)	Economic
Training of weavers on design skills	Lack of skills to design/difficulty in travelling to other states for training/insufficient money	Weavers (105 weavers trained)	Economic
Chanderyaan Local Shop and E-Commerce portal; Compulsory purchase of product by Chanderyaan from weaver	Inability to approach customers for orders/Bridging the market separation gap	Weavers	Economic
Digitization of designs	Preserving old traditional handloom designs	Local community (More than 15,000 design library created)	Cultural
Chanderyaan Integrated ICT for Development Program (CIDP)	Computer training, promoting health care, education, tourism and entrepreneurship	Local community	Social
Technical Set up (Plotter Printer, Card Punching, Jackdow Software)	Excessive time loss due to manual techniques	Weavers (Saves 7-8 h of idle sitting, and consequent saving on economic loss due to daily wages)	Economic
Training of people in the weaving process on looms, embroidery work, block printing, and embroidery designs)	Lack of skills for employment/Insufficient money/difficulty in travelling to other states for training	Local Community (757 people trained in EPR and Vocational Design training; 68 people in embroidery designing; 105 weavers in design making; 350 students in apparel design and training)	Economic and social
Sharing profits with weavers	Eliminating financial instability	Weavers (15 per cent profits are shared with weavers)	Economic
Formation of SHGs	Enable collective approach; self-sustainability	Weavers (30 Self-help groups collectively involving 250 members)	Economic and social
Training of women in basic computer skills, internet access, and community resource activities	Eliminate knowledge barrier; Difficulty in travelling to other states; Unaffordable training fees	Local community (10 women are being trained in first batch)	Economic and social
Wireless internet connectivity	Difficulty in reaching out to the urban markets; Information gap;	Local community (Wi-Fi connectivity to 65-70 households)	Economic and social
e-Heritage website promoting Chanderi Tourism	To promote Chanderi (a supreme tourism destination with more than 350 monuments)	Local Community	Economic, social and cultural

payments (much less than the amount mandated by the government), but were also exploited by master weavers and were thus absent from the markets. During exhibitions, the customers got a chance to converse with the weavers directly. Moreover, now weavers could produce their fabric faster than before, thus reducing design times, weaving times and the overall costs of production.

Table IV Value chain assessment of Chanderiyaan

<i>Primary activities</i>	
Inbound logistics	Local suppliers with ease of purchase of raw materials Easy on-center storage facilities Provision of technical machines, logistics for trainings by funding organizations
Operations	Support from DEF in transportation of materials Handloom weaving of various products Designing through computer software and card punching Online ordering portal and local shop management for sales of products Training of local community in designing, and basic computer skills such as internet access, Microsoft Word and Excel
Outbound logistics	Provision of wireless connectivity to local community Association with Courier Service Agencies for delivery of products, nationally and internationally Efficient order dispatch unit Local shop
Marketing and sales	Tie ups with boutiques in different cities <i>Segmentation and Target Market:</i> Chanderiyaan presently target women as customers for their products through their offering such as Sarees, Salwar Suits, Dupattas and Stoles Training to budding weavers, designers, computer enthusiasts in skill building, computer and designing trainings <i>Branding:</i> Chanderiyaan is a brand of handloom products that means the products are weaved by weavers on handlooms without any power machinery <i>Introduction of new products:</i> Chanderiyaan designers ensure that no design is repeated, and every new collection is original and exclusive. These products are then backed with promotions through social media, newsletters and emails to database, etc. <i>Pricing:</i> Being a social initiative, Chanderiyaan keeps its prices among the lowest in the market <i>Distribution:</i> Chanderiyaan has distribution tie ups with a courier service company for national as well as international orders. Also, boutique tie-ups and participation in various fests and fates in various cities ensure Chanderiyaan's presence among urban population <i>Advertising</i> through newsletters, emails, social media <i>Local shop:</i> Chanderi attracts numerous tourists every year. Therefore, these tourists, and local community are targeted through local shop at the Chanderiyaan center
Services	Provide home delivery with cash on delivery option to customers Online Complaint Redressal Mechanism Continuous follow up with customers through the online order management portal 100 per cent replacement guarantee on defects Delivery of design orders within 24 hours Training facilities and skill building programs for local community Wireless connectivity service for local community On door addressing of grievances related to wireless connectivity Ordering online service Opening of local shop from 9 a.m. to 6 p.m. six days a week, and on demand service on Sunday Free online portal with all information regarding Chanderi Tourism
<i>Secondary activities</i>	
Infrastructure	Strong leadership with DEF support Chanderiyaan Center with integrated manufacturing, processing, packaging and transporting unit Technical Setup (Computer Software, Embroidery and Block Printing Machinery, Card Punching machine) Local Shop to cater to Chanderi tourists and local demand; Online portal for national and international outreach

(continued)

Table IV

Human resource development	Hiring of local employees to make the center self-sustainable in terms of human resources Provides them with trainings so that they can perform as per the expectations Strives to increase the knowledge and working skills of the employees Annual appraisals Weekly meetings to align inter department work among all employees Independence to employees to innovate in the working style of their department External support from DEF for managerial, operational and designing tasks Provides proper space and facilities to weavers
Technology development	Use of computer software Jackdaw for designing Card Punching Machine for design cutting Online e-commerce portal for orders and inventory management Self-managed internet services through Wireless 4 Communities project Focus on feedback from customers for technology development Maintenance of customer database so that they can be contacted at the time of sale, festivals, promotional offers, new products, etc.
Procurement	All raw materials are procured locally from local suppliers in Chanderi, bypassing any intermediary and thereby reduces purchasing costs Technical machines, logistics such as computers, laptops are provided by the funding organizations

DEF was closely attached to the SHGs, which helped to manage the capital available and monitor how that was used in terms of purchasing raw materials, paying weaving charges and collecting the dues from the market after selling. There was also a production manager, a member of the SHG, who managed the production and marketing operations and was paid a salary by DEF. At the end of the year, profits generated from these operations were distributed among the SHG members. In 2014, the economy of the Chanderi weavers was estimated to be approximately Rs. 150 crores, a growth of 130 per cent over the 2009 estimate of Rs. 65 crores when DEF entered Chanderi. With easier raw materials procurement, space for handloom operations, digitized designs, access to urban markets, profit shares and skills training, the weavers were now fully empowered. The market, temporal, spatial, knowledge and economic separations were reduced considerably (See [Table IV](#) for the value chain assessment of Chanderiyaan).

After three years of fruitful efforts, the foremost concern still remains: Should DEF exit the Chanderi intervention? If DEF exited prematurely, then it would probably do more harm to itself and the Chanderi people, especially in view of the fact that there was already a great threat of counterfeit Chanderi art forms being sold in the market, threatening the profitability of the original art form; moreover, the entire operational set up may not be able to sustain itself and Chanderi might go back to its previous state of affairs. However, if DEF continued its contribution to Chanderiyaan, then the program's dependency on DEF may increase. The ambition was to time the exit appropriately and thereby establish a successful and replicable Chanderi cluster model with external ICT intervention support. However, the dilemma before Osama Manzar was to assess the degree to which the success of ICT-led market linkages was sustainable. Should DEF exit Chanderi now?

Keywords:
Marketing,
Inclusion,
Marketing policy

Note

1. Information provided in this particular section has been drawn from the Chanderi online portal: <http://defindia.net/cwirc/> (accessed 8th April 2013).

Exhibit 1. Training centers for vocational ICT skills at Chanderi

Plate E1



Source: Chanderiyaan Website www.chanderiyarn.org

Exhibit 2. Handloom and stitching center at Chanderi

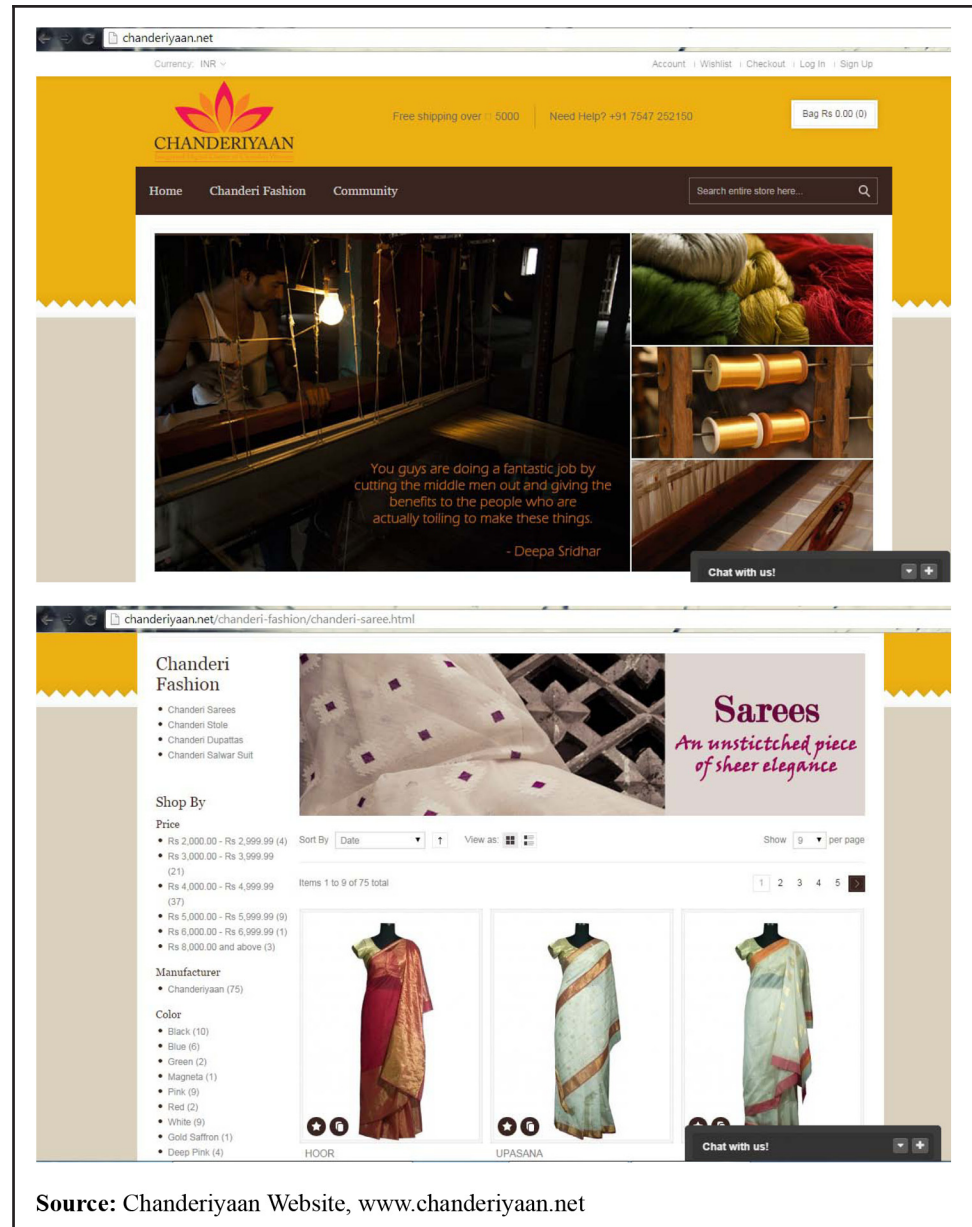
Plate E2



Source: Chanderiyaan Website www.chanderiyaan.chanderi.org

Exhibit 3. Website shots of Chanderiyaan Website

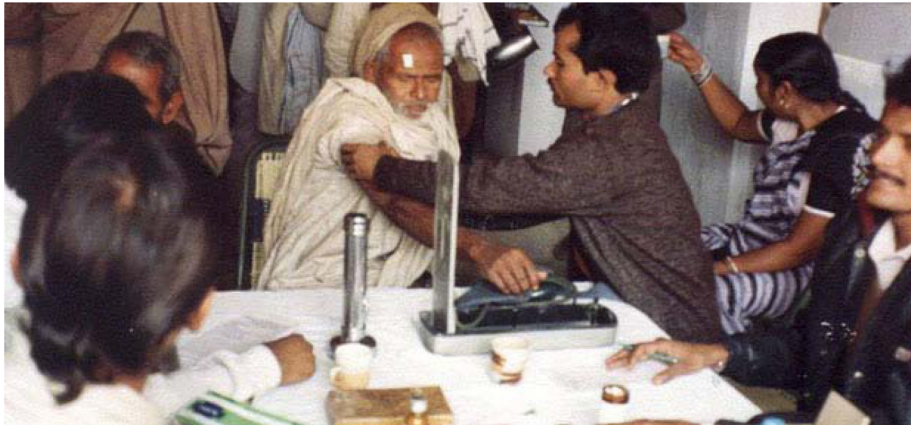
Figure E1



Source: Chanderiyaan Website, www.chanderiyaan.net

Exhibit 4. HealthCare Unit at Chanderi

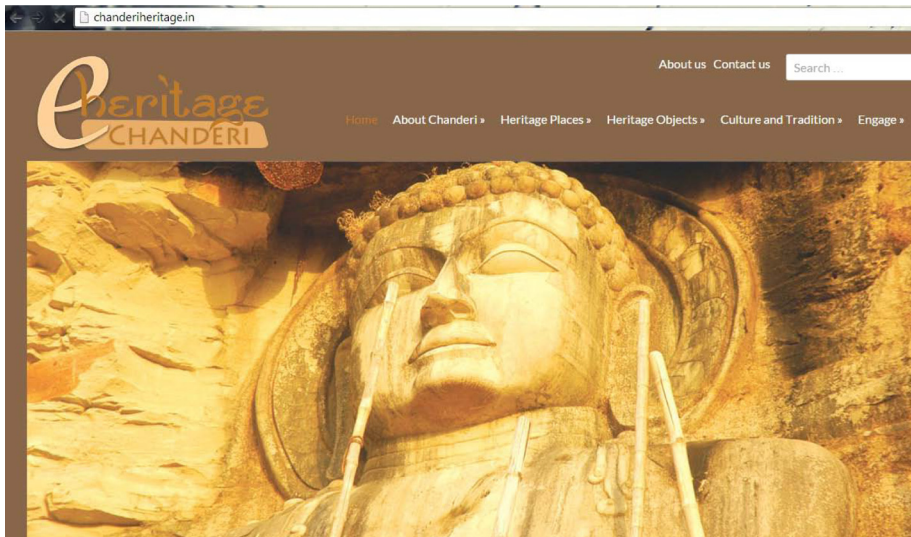
Plate E3



Source: Chanderiyaan Website www.chanderiyaan.chanderi.org

Exhibit 5. e-heritage website of Chanderi

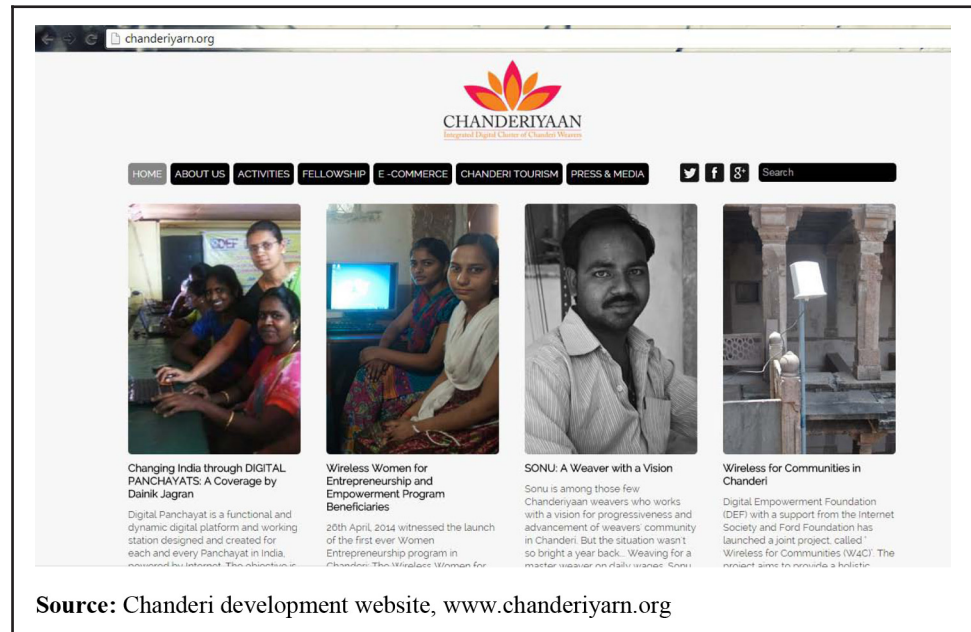
Figure E2



Source: Chanderi e-heritage Website, www.chanderiheritage.in

Exhibit 6. Chanderi development portal, Chanderiyarn

Figure E3



About the authors

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Vaibhav Gupta is presently pursuing his Postgraduate Program in Management at the Indian School of Business, Hyderabad. Before joining ISB, he was working as a Consultant with the Union Minister for Skill Development and Entrepreneurship in Government of India, wherein he was primarily entrusted with policy research, strategy recommendations, general management and administration. An engineer by education, Gupta has keen interest in Public Policy research, discussions and implementation. His research and case studies on low cost *Jugaad* strategies, CSR for skill development and social development organizations have been published and presented at various international forums. Gupta has also worked as a Legislative Assistant to a Member of Parliament. His vision is to create sustainable livelihood solutions, integrating social goals with business operations.

Arindam Sur is currently working on a research project, which is to understand the BOP consumer's stress in shopping. He has previously worked as a Vocational Retail Teacher

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Teaching notes

Ramendra Singh, Pratik Modi, Vaibhav Gupta and Arindam Sur

Case synopsis

This case deals with the dilemma faced by the DEF about exiting its project at Chanderi that involves the development and advancement of the Chanderi handloom industry using ICT support, along with promoting vital growth in Chanderi's education, health and tourism sectors. The program aimed to provide sustainable livelihoods to the workers and residents of Chanderi and to save the dying art form of Chanderi weaving.

Before the beginning of the DEF project, workers at Chanderi were faced with low purchasing capacity, low living standards, exploitative middlemen in the supply chain, low sales and lower wages. They had a limited working infrastructure and were cut off from the market. The Chanderi handloom art was dying.

In 2009, DEF along with Media Labs Asia (MLAsia) and the Ministry of Communication and Information Technology (MCIT) established the Chanderi Weavers ICT Resource Centre (CWIRC) as a self-sufficient community information resource center majorly involved in skills enhancement in weaving and textile designing. The next four years of the CWIRC resulted in an overall growth of the project with progress in the various domains of the handloom industry, such as obtaining raw materials, manufacturing through ICT-enabled processes, sales and marketing, etc. The project not only aimed at achieving the handloom industry's revival and development, but advancements in other sectors such as education, health and tourism. DEF achieved the twin objectives of establishing market linkages for poor handloom producers using ICT and reviving the dying Chanderi art form.

Osama Manzar, the founder of DEF, was facing a dilemma regarding the exit plan of his organization from the Chanderiyaan project. His main worry was about whether the local community of handloom weavers in Chanderi would be able to carry forward the DEF-created ecosystem sustainably? Was it the right time for DEF to exit Chanderi?

Target audience

The target audiences for this case are:

- Postgraduate students of management programs;
- Postgraduate students of social welfare and NGO management programs; and
- Executives of development organizations in management development programs (MDPs).

The case can be used in elective courses such as bottom-of-the-pyramid marketing, management of non-profit organizations and rural marketing.

Learning objectives

The case has been written from the perspective of DEF, which had invested three years in the development and upliftment of the Chanderi handloom industry, the establishment of market linkages for Chanderi weavers and the improvement of their livelihoods. Its prime concern about timing the exit from the project is an important management challenge for DEF since this timing is likely to affect the sustainability of the efforts of the previous three years in Chanderi and the ability of the local community of weavers to keep themselves out of the situation they faced before. The following topics could be discussed and taught using this case:

1. Issues related to market functioning in Chanderi (production hub):
 - infrastructural constraints;
 - low use of technologies (power looms were not allowed by the government to preserve the handloom art form);
 - meager wages of weavers;
 - involvement of exploitative middlemen in the supply chain;
 - limited exposure of weavers to the markets;
 - lack of buyer–seller meetings;

- lack of awareness of the targeted customer segment;
 - social issues of the community; and
 - local challenges such as low literacy and other sociocultural challenges.
2. The role of developmental organizations such as DEF in Chanderi. How do local markets develop and how are market linkages built?:
 - development and advancement of handloom-based technologies;
 - education and healthcare growth among weavers to sustain their livelihoods;
 - exposure to urban markets and targeted customer segments;
 - introduction of self-help groups (SHGs), thereby eliminating exploitative middlemen;
 - partnerships with other organizations and the government for financial aid as well as technological developments. Should MLAsia exit after DEF exits, or should it remain? Should government provide any support after DEF exits?
 - promotion of Chanderi as a rich heritage tourist destination; and
 - provision of ICT and digital facilities such as wireless connectivity to the community.
 3. Managing local communities and building their capabilities for marketing:
 - developing a structured ecosystem for the organized operation of the production and other supply chain activities in Chanderi;
 - ensuring proper regularization of the various sectors as per the proposed guidelines of the government;
 - building the capacities of weavers for organizing, producing efficiently, marketing and supply chain capabilities; and
 - formation of SHGs to enable the spirit of entrepreneurship.
 4. Marketing strategies of community marketing efforts:
 - development of an e-commerce website for product sales;
 - interaction with various organizations for exhibiting products to the urban customers segment;
 - business marketing for marketing products to organizational buyers;
 - social marketing for social upliftment of the local community; and
 - designing and implementing the marketing mix.
 5. Key success factors affecting intervention sustainability and to discuss intervention support withdrawal planning:
 - managing NGO partnerships in skills development work;
 - developing local communities and their skills; and
 - managing an ecosystem of partnerships with other NGOs, the government, the local community and other stakeholders.

Teaching plan

The following objectives are provided to render a broad structure to the case discussion. However, this structure is not binding, and the case discussion can be allowed to take any course. These steps are only provided as bases that must at least be touched to have a comprehensive understanding of the case and the issues. The discussion time breakdown is as suggested below:

Context setup: 10 Minutes. The students should be made aware of the past situation in Chanderi and the various obstructions and issues faced by the community with regards to their handloom industry, such as the lack of resource availability, the involvement of middlemen and low wages. Subsequently DEF, along with its Chanderiyaan project, should be introduced with the dilemma of the case posed as a question to the students to ignite discussions. If possible, a member of the Chanderi community can be invited to the institution to provide insights into the actual scenario that prevailed before the entrance of

DEF. The person could be kept involved throughout the discussions to enable the students to appreciate the reality of the situation.

It is also important for instructors to familiarize MBA students with the context of the bottom of the pyramid or BOP.

According to scholars, the BOP refers to that part of the untapped markets of the world where people live on incomes as low as \$2 per day. There are almost four billion people living primarily in Asia, Africa and South America, who constitute the BOP. In recent years, many management scholars have championed the BOP as a market for firms to sell to or source their products and services from. Although traditionally poverty alleviation and developmental assistance has been a domain of governments and their developmental agencies, the time has now come for the private sector to play a dominant role. However, a few critics have also challenged the basic premise of developing BOP markets by arguing that the poor are likely to be exploited when companies treat them as consumers by trying to sell them products or services that they may not actually need. These critics also argue that to save the poor from exploitation, given their vulnerabilities, the companies should treat them rather as producers and source goods and services from them, which would generate stable incomes in their hands, which eventually would pull them out of poverty. Informal markets already witness the participation of the poor as producers and as consumers. However, in formal markets, the poor are generally absent both as producers and also as consumers. In formal markets, the BOP producers/consumers are separated from other producers/consumers for several reasons, such as their remote locations, the geographical dispersion of BOP communities, low and volatile incomes at the BOP and the presence of exploitative intermediaries among the BOP. In this case study, the instructors must familiarize the students with Bartels's (1968) theory of market separations to argue that markets can be developed at the BOP, if market separations between producers and consumers are reduced, or even removed. Bartels proposed that new markets could be developed if the following four kinds of market separations (between producers and consumers) are reduced:

1. *spatial separation* or the physical distances between producers and consumers;
2. *temporal separation* or the time difference between production and consumption;
3. *informational separation* or the informational asymmetry between producers and consumers related to products and market conditions; and
4. *financial separation* or the lack of consumers' purchasing power when they are willing to fulfill their needs.

Project achievements: Critique and discussion: 15-20 minutes. Chanderiyaan is the brand name of the CWIRC, started by DEF in collaboration with MLAsia with the support of the MCIT. This project primarily involved providing technical education to the textile weavers leading to their creation of new designs by using special CAD software, which reduced designing time, as well as the digitization of patterns, which led to faster product development while meeting customers' needs. The project's activities have included a Skill Builder Program, the forming of SHGs, the provision of handlooms to the poorest weavers and the introduction of block printing and Kalamkari. They have also included managing Chanderi's e-commerce portals. The deployment of ICT as a part of the project has also ensured the inclusion of setups for tailoring, weaving and embroidery work requiring hardware like a plotter printer for printing Chanderi sari designs at the resource center. The various activities that have been involved in the CWIRC projects have included the Skill Builder Program, the formation of SHGs, the establishment of computerized pattern design facilities and apparel design technologies and e-commerce portal development, alongside developments in the fields of education, healthcare and tourism.

Demonstrating how ICT can aid in a reduction of poverty: 10-15 minutes. The instructors can use the following framework to demonstrate how ICT can be used for poverty alleviation at the BOP and to reduce the four market separations ([Table V](#)):

Similarly, the instructors can also show this [Table VI](#):

Discussing the dilemma and wrap-up: 30 Minutes. Instructors can pose the following questions sequentially or provide them to students as broad contours for guiding the discussion. The case instructor will have the opportunity to explain Bartels's (1968) theory of market separations and issues regarding the sustainability of development projects. The discussions will bring out in students an appreciation of how market linkages are

Table V

<i>Market separations</i>	<i>Spatial separation</i>	<i>Temporal separation</i>	<i>Financial separation</i>	<i>Information separation</i>
<i>Role of IT</i>	<i>ICT helps to tackle the physical distance between BOP sellers (buyers) and buyers (sellers), through product digitization, workflow digitization, and ICT-enabled interorganizational partnerships</i>	<i>ICT creates process efficiencies to reduce time lags between production and consumption, and facilitates product preservation between its production and consumption</i>	<i>ICT enables greater affordability of goods and services for BOP consumers, generates income opportunities for BOP members, and creates process efficiencies for micro-finance organizations to reduce the costs of borrowing from them</i>	<i>ICT helps to provide specific (product- and service-related) and general information, and helps to create information intermediaries</i>
Automation Computerizing repetitive, structured, and high-volume information processing to increase speed and accuracy		Creating process efficiencies to reduce time lag between production and consumption facilitate product preservation between its consumption and production	Process efficiencies for micro-finance companies enabling a greater reach of credit to BOP producers and consumers	
Information Providing information for control, coordination, and decision making		Decision support data to enable matching of production and consumption quantities		Enabling mobile phone or telecenter-based access to information that is important to BOP consumers and producers
Transformation Fundamentally changing processes within or between organizations/entities, by facilitating new forms of information transfer	Whole or part product digitization for easily scalable distribution models to remote areas local creation of products/services Process/workflow digitization for remote and real-time access to services IT-facilitated interorganizational partnerships and distribution channels for delivery of products/services		Whole or part product digitization for: enabling distribution in more affordable (smaller) quantities creating affordable (public) information goods through aggregation creating income opportunities for BOP individuals	IT-facilitated creation of information intermediaries who bridge information gaps between BOP producers and consumers, and respective buyers and marketers

Table VI

<i>Developmental outcomes at the BOP</i>	<i>Market separations</i>
Access of BOP buyers to goods and services	Reduction of spatial separation Reduction of financial separation Reduction of informational separation
Access of BOP producers to appropriate buyers of goods and services	Reduction of informational separation Reduction of temporal separation
Development of relevant products and services	Reduction of informational separation
Entrepreneurial opportunity	Reduction of spatial separation
Increase in skills, competencies, and knowledge	Reduction of informational separation

Source: Tarafdar *et al.* (2013)

developed and what issues a development organization should keep in mind while planning its exit strategy from a development program.

The instructors can also throw light on how non-profit organizations like DEF can create an ecosystem of partnerships with other NGOs such as MLAsia, by working closely with the Government of India's MCIT, as well as with weavers and other intermediaries as stakeholders, to develop markets successfully at the BOP. The instructor can drive the discussion around the definition of a market being an arrangement, whereby buyers and sellers can interact to determine the prices and quantities available of a product or service. Some discussion can be had on how markets essentially serve three main functions:

1. matching demand and supply (or buyers, and sellers);
2. facilitating exchanges or transactions; and
3. providing institutional infrastructure.

In the first function, identifying buyers and sellers, matchmaking product offerings with needs, as well as price discovery are important. In the second function, logistics, payment mechanisms and the facilitation of credit, as well as communication between buyers and sellers are important. Finally, the third function includes the enforcement of legal and regulatory mechanisms. While formal markets achieve all three of the functions efficiently, because of the free flow of information between buyers and sellers, in underdeveloped markets each of these functions may require the active intervention of external agencies that have a mandate to ensure that the markets work efficiently by reducing any information asymmetry that exists. Such external agencies, like NGOs, are actively helping to develop markets in undeveloped, informal markets in many parts of India. One such NGO is DEF, whose CWIRC initiative in Chanderi is the subject of this case study. More specifically the three functions of the market are hampered at the BOP because of the constrained physical access of poor consumers or sellers to or from BOP areas, which makes logistics, distribution and retailing an expensive proposition. Moreover, information asymmetry is rampant in BOP regions because of the widespread lack of numeracy, literacy, superstitions and other cultural beliefs and not least because of poor markets for education or low media penetration in BOP regions. This problem is compounded by low levels of education and exposure to media and high levels of dependence on local and confined community and social networks. Because of the high normative prevalence of social and cultural norms, the governing mechanisms of markets are informal in nature and strongly influenced by sociopolitical factors, such as religion and local community, and less by legal or regulatory norms.

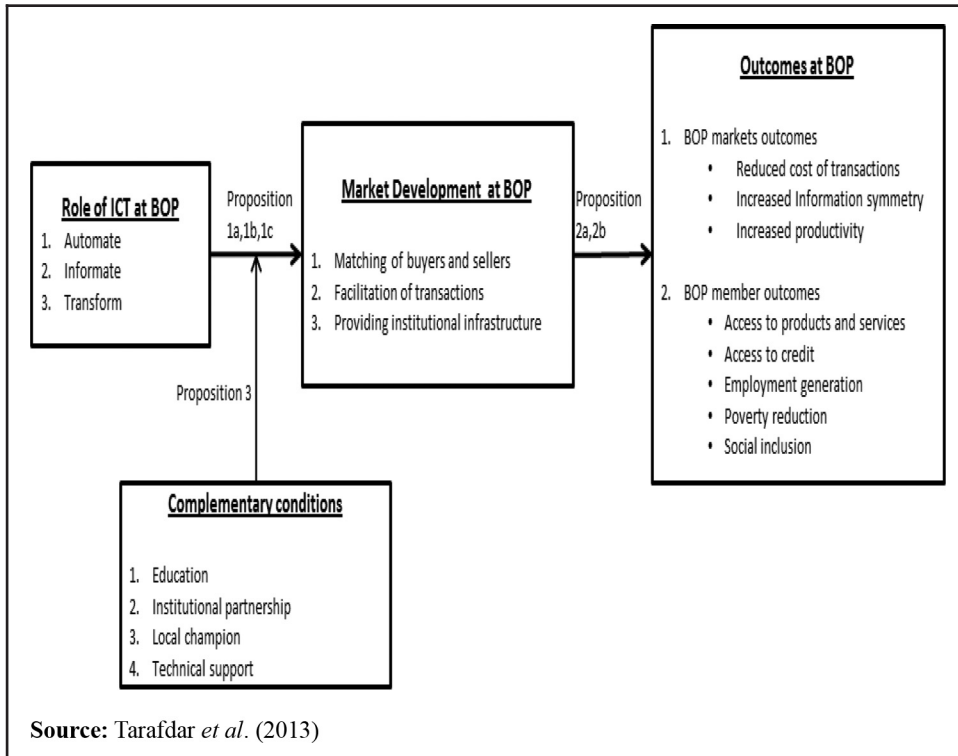
Towards the end of the session, the wrap-up can be done by also showing this framework:

Figure 1

Assignment questions

Q1. What are the chief areas of concern that an organization should consider before entering a project like Chanderiyaan?

- Understanding of market-related issues.
- Awareness of issues related to product development, infrastructure, developmental tools and techniques and so on.
- Developing consciousness about other social and economic factors, such as the current livelihood of the community, the involvement of unethical means and any social restrictions.
- Evaluating the cooperation received by the government and other related industries before the time of evaluation.
- Assessment of any other organization that may have earlier tried to enter the community, with a complete understanding of the hardships faced and the community's responses.
- An interaction with the governing body of the community area to obtain an idea of the support expected from them.
- An informal interaction-cum-survey with the community to access the expected support and willingness of the people to change their current tendencies.

Figure 1

- The market opportunity for products, along with a geographical assessment of the community area to ascertain the marketing and sales possibilities.

Q2. What things should an organization such as DEF take into account before planning its exit from a developmental project?

- The development of the local community and its capabilities since the time of project initiation.
- Evaluation of the various hardships targeted and their current statuses.
- Assessing the capabilities of the community to sustain itself independently.
- Ascertaining the community's potential to be able to maintain similar relationships with marketers and organizations promoting products in the customers' targeted regions.
- Establishing a small project supervision team to resolve conflicts that may occur within the community.

Q3. What marketing strategies can the community employ for their product sales?

- Reaching out to the markets and customers beyond the local markets. Creating an online presence and taking business there could help achieve the connections necessary.
- Establishing linkages with big organizations to allow exhibitions and promotions at their events and through their portals.
- Linkages with the various other organizations working towards benefiting similar communities.
- Maintenance of relations with governmental bodies with responsibilities in any associated domains.
- Online promotions through social media networks.
- Promoting products at various exhibitions and fairs.
- Studying the customer buying patterns in the market and developing offerings accordingly.

- Regular interactions with customers for feedback.
- Promoting other sectors, such as tourism for Chanderi, to showcase the traditions and heritage to attract customers towards the handloom industry.

Q4. How can big organizations/companies contribute towards marketing activities in Chanderi?

- Providing the platform for these communities to display their products.
- Assisting the communities to enter the larger market with bigger and more appropriate customer segments.
- Linking the organization's image with the product image and offerings.

Q5. What could be the other potential markets that need a project such as Chanderiyaan for their development and sustainability?

- Other handloom clusters similar to the Chanderi cluster.
- Bangle market (Firozabad) industries.
- Handicraft industries.
- Khadi manufacturing (textile) industries.
- Rural non-farm and forest-based micro-industries.

Q6. Explain how DEF's Chanderiyaan project connected handloom weavers to markets:

This is an important issue about this case. Here, the case instructor has the opportunity to introduce the theory of market separations by Bartels (1968) and show how bridging these separations can help develop markets and build linkages. Bartels (1968) argued that a society's primary institutions control and shape marketing. He suggested that there are four separations between customers and producers that inhibit market access. These four types of market separations are:

1. Spatial separations (distances between buyers and sellers in the market);
2. Temporal separations (time gaps between need generation and the need fulfillment of consumers);
3. Information separations (a lack of knowledge or information about markets and products at the consumers' or producers' ends); and
4. Financial separations (no money to buy, or no money to produce).

The theory of market separations has not progressed much since its introduction in the late sixties. However, in recent years, some studies (Tarafdar *et al.*, 2012) have started paying more attention to it considering its application in the markets for the poor. The case explains several initiatives that can be seen from the four separations perspective and how DEF has developed an ecosystem to provide market access to the weavers.

The students can be shown the summary illustration as a structured way of exhibiting how the different activities of DEF have helped to achieve its goals of linking the poor weavers with their markets. [Table I](#) summarizes the stakeholder activities of the project at Chanderi. [Table II](#) summarizes the various supply chain activities and how the various market separations are being reduced to build market linkages for the handloom weavers. The case writers have added a new fifth market separation to this theory of market separations called "capability separation", which denotes a lack of expertise, knowledge and/or skills/competencies to produce or sell in the market (Singh, Agarwal and Modi, 2015). This lack of capabilities is very common at the BOP and it often leads to a lack of participation of poor producers in markets. The instructors should spend some time discussing these five different types of market separations in the class to drive home the point that reducing these market separations is imperative for developing markets at the BOP.

Q7. Should DEF exit the Chanderiyaan project?

Literature on the sustainability of development interventions lists the genuine involvement of local people as active participants and equal partners as an important factor affecting sustainability. A withdrawal or phase-out plan should not be rigid so that changes in the external environment can be responded to, if required. Stakeholder interactions, coordination and planning are important for a successful withdrawal. It is important that efforts are made to institutionalize the skills required for the success of the project.

Withdrawal in haste could jeopardize the sustainability of a project and could lead to the wastage of the entire effort and resources.

Students can be encouraged in their discussions by constituting groups focused on various aspects of the sustainability of Chanderiyaan and its resource center, the CWIRC. The students can focus on the project's benefits (Table III) and value chain analyses (Table IV) to deliberate on the various advantages that might promote DEF's exit from the project, and the various shortcomings that might act as a deterrent to its withdrawal. Table III tries to evaluate the business through its value chain along with an attempt to highlight the various departments where DEF and Chanderiyaan have implemented self-sustainable models, such as employing local staff as center management, the training of employees on digital machines and computer software, local purchases of raw materials and local tie-ups with courier agencies for product shipments. Moreover, Table IV makes an effort to analyze the project benefits and would provide an idea of the various activities undertaken and their impacts. Students would be able to reflect on the relevance of these activities, their self-sustainability and the project path of Chanderiyaan. The instructors should spend some time allowing discussions on the multiple facets of self-reliance and focus on the various operations and their individual assessments concerning their self-sustainability. The discussion may conclude with recommendations about DEF's exit, its advantages, as well as its drawbacks.

Q8. On an organization's exit from a project such as Chanderiyaan, how should the community structure its life and work so as to continue obtaining the same development and growth?

- Develop a community governing body to take care of any conflicts that may occur within the community.
- An organization's key functions should be entirely managed by the people from the local community, with regular feedback from the community on issues, suggestions, and ways ahead.
- Make sure that the organization's suggested ways of operations are followed convincingly.
- Try to implement the project plan by the organization in the community's own ways.
- Have definite contact with the organization for assistance in all sorts of concerns and issues.

Epilogue. DEF was still indecisive about timing its exit from Chanderi in 2017. Although it favors moving out of Chanderi for strategic reasons, as mentioned in the case study, before it does so, it needs to convince MCIT and MLAsia that it has achieved in the previous three years what it set out to achieve, which included making the Chanderi cluster a sustainable development model that can be scaled up to other such clusters in India.

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Suggested readings and URLs

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Abstract

Title – *Digital Empowerment Foundation's Chanderiyaan Project: linking the poor producers with the market using ICT.*

Subject area – *Non-governmental organization (NGO) intervention in poor communities using information and communication technology (ICT).*

Study level/applicability – *BBA, MBA courses on marketing management, social entrepreneurship, rural marketing, marketing to bottom of pyramid.*

Case overview – *In 2009, Digital Empowerment Foundation (DEF) along with Media Labs Asia and the Ministry of Information and Communication Technology (MICT) established the Chanderi Weavers ICT Resource Centre (CWIRC) as a self-sufficient community information resource center involved in skills' enhancement of weavers at Chanderi in Madhya Pradesh. The next three years of CWIRC resulted in an overall growth of the project with progress in the various domains of handloom industry through ICT-enabled development of weavers and weaving. The project not only aimed at the handloom industry revival and development, but also advanced in other sectors such as education, health and tourism. Osama Manzar, the DEF founder, is in a dilemma as to whether the local community of weavers in Chanderi would be able to continue with the sustainable ecosystem created in Chanderi. Is it the right time to exit Chanderi?*

Expected learning outcomes – *Issues related to the market development at the bottom of the pyramid; managing local communities and building their capabilities for marketing; marketing strategies of community marketing efforts; and key success factors for ensuring successful completion of any developmental project.*

Supplementary materials – *Teaching Notes are available for educators only. Please contact your library to gain login details or email support@emeraldinsight.com to request teaching notes.*

Subject code – *CSS 8: Marketing.*