



DEVELOPMENT INNOVATION VENTURES (DIV)

LOOKBACK STUDY: INDIA

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Cover Photo: Flickr. Asia Development Bank. "Representatives of Simpa Networks going to the Sonsa, Mathura, Uttar Pradesh to demo and explain the benefits of Simpa energy solar set to the residents." February 2014

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TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF FIGURES	4
ACRONYMS	5
EXECUTIVE SUMMARY	7
1. INTRODUCTION	9
2. METHODOLOGY	10
3. SCALE JOURNEY	15
4. DRIVERS OF SUCCESS	19
5. CONCLUSIONS AND RECOMMENDATIONS	25
ANNEX I: GRANT PROFILES	27

LIST OF TABLES

TABLE 1: INNOVATION SUCCESS STATUS	7
TABLE 2: DESCRIPTION OF GRANTS BY SECTOR	10
TABLE 3: ASSESSMENT FRAMEWORK ELEMENTS	13
TABLE 4: MARKET STATUS AND FUNDING	15
TABLE 5: HIGHLIGHT OF KEY METRICS FOR ON-MARKET INNOVATIONS	17
TABLE 6: GRANT 1 PROFILE SUMMARY	27
TABLE 7: GRANT 2 PROFILE SUMMARY	29
TABLE 8: GRANT 3 PROFILE SUMMARY	31
TABLE 9: GRANT 4 PROFILE SUMMARY	33
TABLE 10: GRANT 5 PROFILE SUMMARY	36
TABLE 11: GRANT 6 PROFILE SUMMARY	38
TABLE 12: GRANT 7 PROFILE SUMMARY	40
TABLE 13: GRANT 8 PROFILE SUMMARY	42
TABLE 14: GRANT 9 PROFILE SUMMARY	44
TABLE 15: GRANT 10 PROFILE SUMMARY	47
TABLE 16: GRANT 11 PROFILE SUMMARY	49
TABLE 17: GRANT 12 PROFILE SUMMARY	51

LIST OF FIGURES

FIGURE 1: GRANT BY DIV FUNDING AMOUNT, YEARS OF IMPLEMENTATION, FUNDING STAGE, AND SECTOR	12
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ACRONYMS

ASHA	-	Accredited Social Health Activist
BMGF	-	Bill and Melinda Gates Foundation
BOP	-	Bottom of the Pyramid
CDM	-	Clean Development Mechanism
CHW	-	Community Health Workers
DCTS	-	Direct Conduction Thermoelectric System
DIV	-	Development Innovation Ventures
ECHO	-	Project Extension for Community Healthcare Outcomes
ET	-	Evaluation Team
GCC	-	Grand Challenges Canada
GLP	-	Greenlight Planet
GoI	-	Government of India
ICT	-	Information Communication Technology
IVR	-	Interactive Voice Response
J-PAL	-	Abdul Latif Jameel Poverty Action Lab
KII	-	Key informant interview
LED	-	Light Emitting Diode
LOP	-	Life of the Project
MFI	-	Microfinance Institution
NGO	-	Non-Governmental Organization
LEAP	-	Learning, Evaluation, and Analysis Project
RAJEEVIKA	-	Rajasthan Grameen Aajeevika Vikas Parishad
RCT	-	Randomized Control Trial
RS	-	Indian Rupee
SME	-	Small and Medium-Sized Enterprises
SMS	-	Short Message Service
SRLM	-	State Rural Livelihoods Mission
SSA	-	Sub-Saharan Africa
TaRL	-	Teaching at the Right Level

- THP** - Targeting the Hardcore Poor
- USAID** - United States Agency for International Development
- WASH** - Water, Sanitation, and Hygiene
- USD** - United States dollars

EXECUTIVE SUMMARY

Since 2010, USAID’s Development Innovation Ventures (DIV) program has supported over 225 innovations in 47 countries. DIV’s core principles include robust evidence, cost-effectiveness, and pathways to scale, leading to sustainability. DIV operates by investing in innovators and researchers to test new ideas, build rigorous evidence of impact, take strategic risks, and advance the best solutions to development issues.

USAID’s DIV program has invested US\$34 million in 54 grants in India since the program’s inception in 2010. This study aims to understand the status of a selection of these grants and what enabled or hindered their success in scaling and reaching impact for their target populations. The purpose of this review is to provide the DIV program an update on a selection of the closed grants in the India portfolio, assessing each innovation’s metrics of scale after their DIV funding ended, and qualitatively understanding key enablers of their success. Twelve closed grants are included in this study, which spans five sectors (health, energy, economic growth, education and training, WASH) and represents US\$12,484,810 of investment (approximately 37 percent of DIV’s total investment in India).

This lookback study defines an innovation as successful **if the core model was found available to its target users in its target market system** at the time of the study. We acknowledge limitations to this definition of success as mainly focusing on the innovation’s team to scale the core model of the innovation to its target market, but we use this definition to provide a framework through which to discuss qualitative drivers of success. Iterations were acceptable if the core aspects were maintained. In addition, the ET considered evidence of impact for social outcomes on target users as part of determining an innovation’s success and present a qualitative discussion of key enablers and challenges to scale and reach target users.

TABLE 1: INNOVATION SUCCESS STATUS	
CONFIRMED SUCCESSFUL	CONFIRMED UNSUCCESSFUL
STAGE 1	
<ul style="list-style-type: none"> • Dimagi (also funded at Stage 2) • Pixatel Systems (also funded at Stage 2) 	<ul style="list-style-type: none"> • Bear Valley Ventures Ltd. • Violet Health
STAGE 2	
<ul style="list-style-type: none"> • Babajobs • Bandhan-Konnagar • BioLite • D-Rev • Dimagi (also funded at Stage 1) • Orb Energy • Pixatel Systems (also funded at Stage 1) • Pratham • VisionSpring 	<ul style="list-style-type: none"> • Ideas42

None of the innovations included in this review were funded at Stage 3.

The nine successful innovations have all reached exponential scale levels across most key indicators post DIV funding. All nine have expanded beyond their initial geographic reach. Eight of the successful grants have demonstrated an impact on their target audience. One successful grant, Pixatel Systems, has demonstrated impact but pivoted away from their target audience of low-income primary schools to higher-level income market segments due to operational challenges. While these metrics of scale cannot be solely attributed to DIV funding, the program can claim a contribution to enabling these innovations towards their market entrances and continued scale.

The evaluation team (ET) analyzed key drivers and elements of success observed across six scaling categories: scaling strategy, types of innovation models, use of evidence, partnerships, financial viability, and contextual elements. The main findings from this review are summarized by these scaling categories below.

Establishing and maintaining the right partnerships for the model and scale path was key to successfully scaling an innovation. Several examples of failing to establish key partnerships were attributable to insurmountable challenges faced by innovations that either had to pivot away from their intended model or those that never made it to market at all.

Grantees with an **in-country presence** were able to **quickly pivot and respond to operational challenges** and evolving contextual changes. All three grantees that did not reach the market did not have a consistent in-country presence or strategic in-country partner and cited this as a significant challenge faced in their scale journey.

Successful teams learned from **customer feedback and impact monitoring data** to quickly iterate the model design or delivery to meet evolving needs and found success in driving growth. Successful grantees were also able to **strategically leverage evidence of their model's impact** on social outcomes to secure additional distribution partnerships, funding, and resources to continue their scale. However, this evidence alone was not enough of a driver to scale the innovation to reach its target users. Innovation teams needed a **shared vision for scale, in-country partners to assist in navigating on the ground challenges, and strategic partners** to facilitate a path towards scale to reach target users.

The flexible DIV funding came at a critical stage in an innovation's scale journey, and DIV was a very supportive funding partner. Successful grantees **secured key follow-on funding** before the DIV grant ended, a requirement of DIV's milestones, enabling them to continue piloting their innovation or scaling their market-tested product and drive growth without a lag.

Successful grantees **capitalized on changing factors in the Indian context**, such as changing market conditions or new national initiatives promoting best practices, such as handwashing with soap, for example, to leverage the penetration of their model in the market. However, some unsuccessful grantees noted that they failed to capitalize on such contextual changes, which was a missed opportunity.

These findings inform the key drivers of success among the twelve closed grants included in this study. Most of the grantees currently on the market were considered successful in rapidly scaling and reaching their target users in India and other markets. **Grantee products** currently off-market experienced common challenges that presented insurmountable issues that limited their ability to secure the right partners or funders or develop strategies for a successful market foray.

I. INTRODUCTION

Since 2010, USAID’s Development Innovation Ventures (DIV) program has supported over 225 innovations in 47 countries. DIV’s core principles include robust evidence, cost-effectiveness, and pathways to scale, leading to sustainability. DIV operates by investing in innovators and researchers to test new ideas, build rigorous evidence of impact, take strategic risks, and advance the best solutions to development issues.

USAID’s DIV program has invested US\$34 million in 54 grants in India since the program’s inception in 2010. DIV contracted the Learning, Evaluation, and Analysis Project (LEAP III) to conduct a lookback study to understand the status of a selection of these grants and what enabled (or not) their success in scaling and impacting their target populations. The purpose of this review is to provide the DIV program an update on a selection of the closed grants in the India portfolio, assessing each innovation’s scale metrics after their DIV funding ended and qualitatively understanding key success enablers. Specifically, this review aims to answer the following questions for the included grants:

1. How much has the specific innovation supported by DIV been scaled, and what does the outreach look like?
2. What changes to the innovation or its delivery were made, and what drove those changes?
3. What challenges were faced by the organization to scale the innovation, and how were they addressed?

In collaboration with the DIV team, the LEAP III team identified an initial 25 closed grants in India to review as part of this lookback study, of which 12 are presented in this report (see Methodology section for selection approach and data limitations).¹ These 12 grants span five sectors (health, energy, economic growth, education and training, and Water, Sanitation, and Hygiene—WASH) and represent a total of US\$12,484,810 of investment (approximately 37 percent of DIV’s total investment in India).

This report is organized as follows. The Methodology section describes the sampling criteria for grant inclusion, the 12 grants included, a conceptual assessment framework, the methods used to gather data to inform findings, and the limitations that hindered this review. The Scale Journey section provides an update on the grants’ key performance metrics, including scale and impact. Section Four, Drivers of Success, describes common factors that either enabled or did not enable success for the innovation to scale and reach impact, aligning with the elements of the assessment framework. Section Five, Conclusions, offers high-level conclusions and lessons learned. Annex I presents profiles for each grant, outlining the development problem addressed, innovation model, target users, innovation model, the purpose of DIV funding, the innovation’s scale journey, performance, and key lessons learned.

¹ DIV has funded 54 grants in India. Thirteen are active, one has been canceled, and forty are closed.

2. METHODOLOGY

This lookback study employs mixed methods to review 12 closed DIV-funded grants in India between 2012 and 2019. This section outlines how the 12 grants were selected for this study, the methods employed to assess their scale journey and success, and the data limitations that hampered a full review of DIV's India portfolio.

2.1 GRANT SELECTION

DIV has funded 54 grants in India since 2010. Of these 54 grants, 40 have been closed, 13 are still active as of 2021, and one was canceled. Only closed grants were selected for this study to understand learnings post-div funding. Further, all grants that only funded an evaluation of an innovation's impact (e.g., "evaluation" grants) were removed from this study, leaving 24 operations grants to be reviewed. In several cases, stage 1 and stage 2 were funded for the same innovation. In these cases, only the stage 2 grant was included in this report. A desk review was conducted to gather secondary data on each grant. However, only those for which a key informant was able to be conducted were included (a total of 12 grants), as the key informant interviews (KII) were essential to verify and triangulate data. Only 12 key informants were willing and available to participate in this study (see data limitations section).

2.2 GRANT DESCRIPTION

Twelve grants funded in India between 2012 and 2019 were included in this study. Table 2 presents a brief description of each grant by sector. This review included three grants focused on economic growth, two on primary education, two on energy, four on health, and one on WASH. Of the 12 grants, nine innovations are currently available on the market. The other three innovations are confirmed to have not made a market entry yet; their market entry has either been shelved or significantly delayed by many factors.

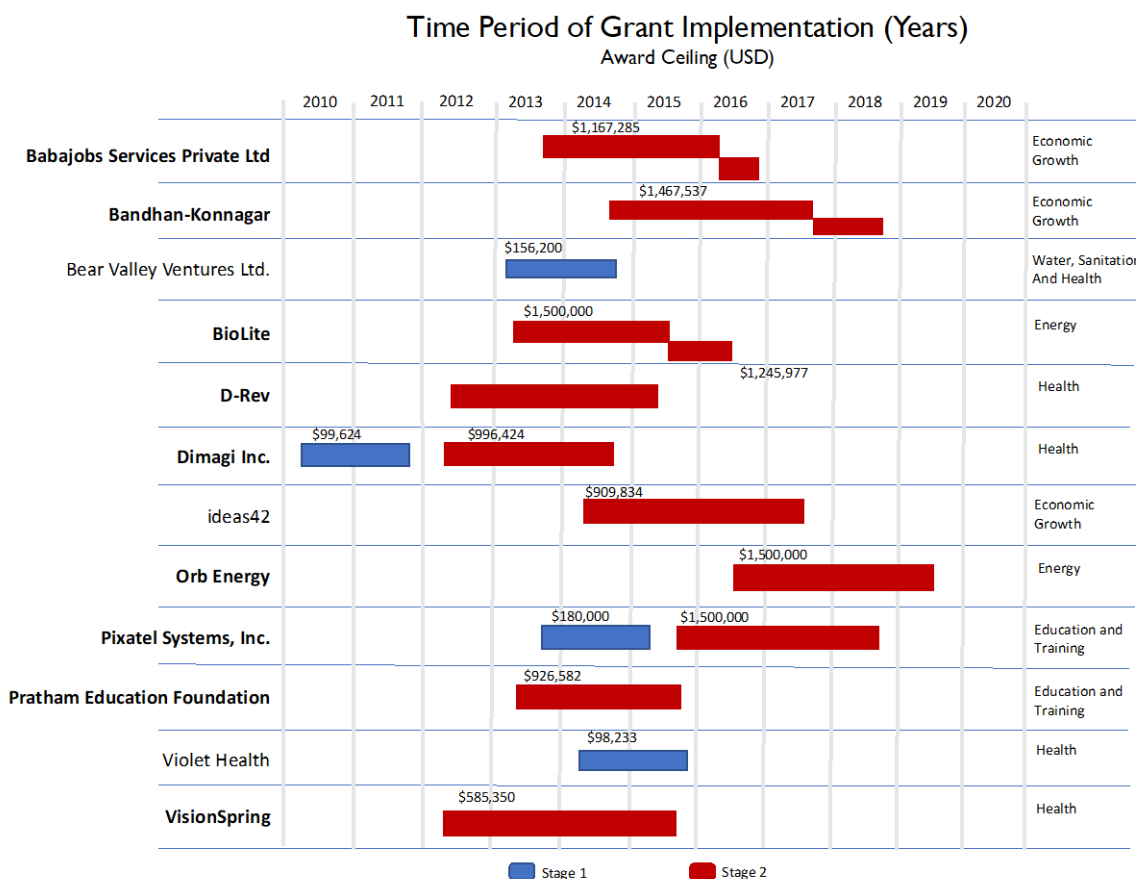
TABLE 2: DESCRIPTION OF GRANTS BY SECTOR	
Innovation* (Grant Period)	Description
Economic Growth	
Babajobs Services Private Limited (2013–2016)	Babajobs is a mobile application using interactive voice response (IVR) and short message service (SMS) to connect job seekers in the informal sector to job opportunities with hiring employers. It has since expanded to match jobseekers and employers in higher-income market segments, while continuing to serve lower income markets (although this has downscaled).
Bandhan-Konnagar (2014–2018)	The Targeting the Hardcore Poor (THP) model program targets bottom of the pyramid (BOP) women to improve their financial and livelihood security to facilitate graduation from poverty.
Ideas42 (2014–2017)	Ideas42 designed, Financial Heuristics, a behaviorally designed financial management training, which simplified the training into easy-to-remember and easy-to-adopt rules of thumb and

	leveraged mobile technology to directly deliver the training to microentrepreneurs in a cost-effective, scalable manner bypassing the need for a physical classroom setting.
Education and Training	
Pixatel Systems, Inc. (2015–2019)	Pixatel developed a low-cost cloud-based learning platform and associated tablet-based learning application, Math Whiz, to improve primary school student learning outcomes and learning concentration periods. Pixatel distributes this platform via the app store and direct in-schools in India, although the latter operations have since been on a hiatus.
Pratham Education Foundation (2013–2015)	As part of Pratham’s Teaching at the Right Level (TaRL) framework, Pratham developed and tested the Learning Camps model that gives primary school students intensive bursts of teaching and learning to improve learning outcomes in short periods.
Energy	
BioLite (2013–2016)	BioLite developed and sold the HomeStove, an alternative cookstove product that improves users’ health, reduces household fuel costs, and mitigates carbon emissions associated with traditional fuel sources. BioLite has expanded to solar panel systems and green cookstove products for peri-urban and rural off-grid households.
Orb Energy (2016–2019)	Orb Energy is a solar energy company that designs, manufactures, and installs solar systems for residential and commercial customers, particularly small and medium-sized enterprises (SMEs). Many SMEs were unable to afford the up-front costs of their solar systems and could not secure financing from other sources. Orb Energy developed an in-house financing mechanism to provide SMEs solar panel systems on credit and other financing options to reach larger market segments.
Health	
D-Rev (2016–2019)	D-Rev modeled strategic awareness campaigns of using phototherapy treatment for jaundice among newborn babies and to improve the use of phototherapy to treat jaundice and reduce its incidence, targeting doctors, influencers, and household purchase decision-makers.
Dimagi Inc. (2012–2014)	Dimagi Inc. developed and disseminated a CommCare system for health care workers to aid decision making, online register, and mechanism to disseminate information services to healthcare clients.
Violet Health (2014–2015)	Violet Health developed and market-tested an iron-fortified biscuit to replace iron supplements in pill form to reduce the incidence of anemia among pregnant and reproductive-age women.
VisionSpring (2012–2015)	Building on lessons learned in Latin America, VisionSpring developed a spoke model to deliver low-cost eye health care and corrective tools (i.e., glasses) to BOP users who otherwise would not have access to such care. VisionSpring uses revenues generated from seller higher cost eye care products to higher-income market segments to reduce costs in delivering to BOP.
Water Sanitation and Hygiene	
Bear Valley Ventures Ltd. (2013–2014)	Bear Valley Ventures developed and market-tested an affordable, effective, environmentally responsible, and desirable hygiene product that encouraged households to wash their hands post defecation with the overall aim to reduce diseases related to poor hygiene.

**Bolted innovations are those currently on market and considered successful; the rest are off market and considered unsuccessful.*

Figure I presents the grants by funding amount, with BioLite, Orb Energy, and Pixatel receiving the highest grant amount of \$1,500,000 and Violet Health receiving the lowest at \$98,233. Other than D-Rev, all grants included a cost-share with DIV funding to support total project costs (presented in Figure I).

FIGURE I: GRANT BY DIV FUNDING AMOUNT, YEARS OF IMPLEMENTATION, FUNDING STAGE, AND SECTOR



**Bolted innovations are those currently on market and considered successful; the rest are off market and considered unsuccessful.*

2.3 ANALYTIC ASSESSMENT FRAMEWORK

Drawing from LEAP III’s assessment of DIV’s Digital Agriculture portfolio, the ET developed a conceptual framework to analyze each grant’s success and sustainability in the sector (Table 3). The ET developed this conceptual framework independently of DIV. DIV does not use this framework to analyze its grants.

For this lookback study, **an innovation was considered successful if the core model was found available to its target users in its target market system.** We acknowledge limitations to this definition of success as mainly focusing on the innovation’s team to scale the core model of the innovation to its target market, but we use this definition to provide a framework through which to discuss qualitative drivers of success. Iterations were acceptable if the core aspects were maintained. In addition, the ET considered evidence of impact for social outcomes on target users as part of determining an innovation’s success and present a qualitative discussion of key enablers and challenges to scale and reach target users.

TABLE 3: ASSESSMENT FRAMEWORK ELEMENTS

KEY CONCEPTS	
Impact	The impact is the overall effect on the intended outcomes of the innovation in its target system.
Scale	The scale is the reach of the innovation to its target adopters and the systems that support them. There are two main aspects of scaling considered: <u>Scale-out</u> : the degree to which the target populations have adopted the innovation. <u>Scaling up</u> : the degree to which an innovation has been integrated into the support systems and institutions necessary to facilitate adoption.
Sustainability	Sustainability is the evidence of the likelihood that an innovation will be maintained in the long term by target adopters in target systems post-DIV funding.
FRAMEWORK ELEMENTS	
Scaling Strategy	The key elements of grant scaling strategies considered include: <ul style="list-style-type: none"> • <u>Scale Pathway</u> pursued (Public, Private, and Hybrid) • <u>Scale Approach</u> applied (Expansion, Replication, and Collaboration) • Partnership model • Stakeholder engagement strategy
Model	The model is the whole of the innovation, including its type, functions, and benefits. A <u>Core Model</u> is the unique features that are key to an innovation’s effectiveness and distinguish it from similar products, processes, or services. Other aspects of models considered here include changeover costs for providers and capacities required of users such as literacy, language, computer skills, licenses, or permission from others for use.
Evidence	The ET examined evidence not for its statistical meaning but for its role in advancing innovations on their scale journey. Elements of evidence considered included: <ul style="list-style-type: none"> • Type and purpose (Model effectiveness, Market research, and Business model data) • How it was generated (Randomized Control Trials (RCTs), professional researchers, innovators, or others) • How it was utilized (by whom and for what purpose)
Partnerships	Partnerships were examined by a partner’s role in an innovation’s scale journey and their impact on its success.
Financial Viability	Financial viability is the demonstrated cost-effectiveness for providers and financial accessibility for target users to sustain adoption of the innovation long-term, although the ET acknowledges that an model can be cost-effective but not financially viable.
Contextual Elements	Drivers, enablers, or barriers to adoption and sustained use inherent to an innovation’s target system and external to the innovation itself. These include physical environments, infrastructure, weather, political influences, and cultural aspects.

2.4 METHODS

DESK REVIEW

LEAP III team first conducted a desk review of each grant identified for this study. This desk review included reviewing DIV's Salesforce records on each grant and reviewing grant documents as provided by the DIV team. Finally, the LEAP III team reviewed secondary sources about each grant, including but not limited to company websites, annual reports, technology blogs, peer-reviewed publications, sector reports, and others. The amount, quality, and verifiability of available secondary data varied by grant. All grants included at least some documents, such as milestone or final reports, as provided by the DIV team, and had the Salesforce records completed. For most grants, there were secondary sources available, either company websites, annual reports, or peer reviewed publications on the evidence of impact.

KEY INFORMANT INTERVIEWS

After completing the desk review, the LEAP III team contacted a list of key informants to schedule a one-hour interview to verify and validate secondary data and discuss challenges and enablers of success. Twelve key informants representing the 12 grants included in this study participated in an interview. All interviews were conducted remotely via Google Meets and followed a consistent question guide to understand the status of each innovation, validate secondary data, and explore key enablers and challenges to success for each grant. The interview guides also asked informants to reflect on their experience with DIV and share feedback to DIV from a grantee perspective. Detailed notes were taken during each interview, which served as the basis for qualitative analysis. Section 3 presents the findings informed by the secondary and primary data collected as part of this study.

2.5 DATA LIMITATIONS

This study faced several key data limitations that hampered the ET's ability to conduct a thorough review of all selected grants. First, particularly among innovations that are no longer on the market or never made it to market, there exists a significant lack of verifiable secondary data about the innovations' scale journey and key performance metrics. Second, many of the identified key informants were either not available, unwilling, or unresponsive to participate in a KII. Initially, only nine KIIs were completed. After further collaboration with USAID's DIV program team, an additional three key informants were successfully contacted for an interview. Of the 12 KIIs conducted, several participants were not part of the DIV-funded experience, and therefore could not share reflections of the DIV experience. This was particularly true for the DIV grants before 2015. Given the limited ability to verify or validate secondary data on each innovation, only those grants with a KII were included in this study.

3. SCALE JOURNEY

3.1 CURRENT MARKET STATUS²

Of the 12 innovations included in this study, nine were confirmed as on the market in 2021, and three had not made it to the market. Table 4 below details the market status and funding journey of the twelve innovations. Details for each grant can be found in their respective Grant Profile in Annex I.

TABLE 4: MARKET STATUS AND FUNDING					
Innovation Name	Current Status	DIV Funding	Grant Cost Share*	Confirmed Follow-On Funding**	Follow-On Funding Source
Babajobs	On Market	\$ 1,167,285	\$ 1,400,000	\$10,000,000	-
Bandhan-Konnagar	On Market	\$ 1,467,537	\$ 536,103	-	-
Bear Valley	Off Market	\$ 156,200	\$ 156,200	\$0	-
BioLite	On Market	\$ 1,500,000	\$ 78,000	\$8,000,000	Government of Norway
D-Rev	On Market	\$ 1,245,977	\$ 0	-	BMGF, Million Lives Club
Dimagi	On Market	\$ 996,424	\$ 1,817,000	\$100,000,000	Grant from BMGF (according to KII)
Ideas42	Off Market	\$ 909,834	\$ 364,000	\$0	-
Orb Energy	On Market	\$ 1,500,000	\$ 423,000	\$15,000,000	US International Development Finance Corporation, Netherlands Development Finance Company
Pixatel Systems	On Market	\$ 1,500,000	\$1,100,000	\$112,000	University of Pennsylvania, Weiss Fund for Research in Development Economics
Pratham Education Foundation	On Market	\$ 926,582	\$ 50,000	-	-
Violet Health	Off Market	\$ 98,233	\$ 20,000	-	Grand Challenges Canada
VisionSpring	On Market	\$ 585,350	\$ 500,000	\$ 500,000	Alcon Foundation and Bohemian Foundation
	Total	\$12,053,422	\$6,444,303	\$333,612000	

² Unlike the Digital Agriculture report, this study could not provide a robust discussion of the different drivers of successful (or unsuccessful) scale approaches undertaken by the 12 innovations included.

Note: Innovations in bold are confirmed on the market as of December 2021.

**This figure represents the grant cost share as reported in DIV records as of December 2021.*

***This table presents confirmed follow-on funding as reported by key informants or secondary evidence. No data or specific follow-on funding number or source could be confirmed for Bandhan-Konnagar, D-Rev's funding amount, Pratham Education Foundation, and Violet Health. BioLite secured additional funding from carbon credit purchase agreements and investment funds, but the specific source and amount were not disclosed. Violet Health secured stage 2 funding from Canada's Grand Challenges program, but the amount is not confirmed.*

3.2 SCALE AND IMPACT

Of the nine grants currently on the market, all have scaled beyond their initial targets, and most have scaled into new geographic areas and markets.

All grants that are currently on the market have experienced rapid scale growth. For example, Dimagi's CommCare platform scaled from 3,100 users in India in 2014 to millions of front-line health care workers on the platform globally in 2021. The platform is used in over 80 countries and is included as part of over 2,000 projects. For another example, by 2016, Babajobs scaled more than 2 and 4.5 times their initial targets to 6.4 million jobseekers and 450,000 employers registered on their platform. In 2017, they had 8.5 million jobseekers and 5 million employers on their platform. Unfortunately, more recent data could not be obtained, but their rapid growth highlights Babajobs' high expansion rate. For another example, D-Rev also experienced rapid growth, selling 1,359 units in 2019 and selling 4,896 units in 2021 to treat neonatal patients with jaundice.

Several grants have expanded beyond their initial reach in India to enter new geographic markets, particularly sub-Saharan Africa. For example, Pratham Education's TaRL model, including the learning camps, has expanded to over ten African countries via partnerships with several African governments. While Pratham manages and implements the model implementation in India, it has replicated variations of this model across Africa to reach millions of primary school learners. Another example, BioLite, has ended operations in India and is now solely focused on managing their business-to-business (B2B) model in Africa and the Philippines to deliver top-of-the-line stove and solar panel systems to distributing partners across sub-Saharan Africa (SSA). They ended operations in India due to the macroeconomic crises in 2016–2017, making India's sales unsustainable. By then, they had already started small operations in Kenya and used this as a pivoting point to switch their Emerging Markets operations into Kenya to expand into SSA.

Most of the innovations in the market have generated impacts on social outcomes for their originally intended target users. For example, BioLite has seen tremendous success in generating impact in the household energy sector across Africa and Asia since the company's inception. To date, 3,268,478 million people have been reached through their household cookstove units and solar panel system units, with 3,954,696 kilowatt-hours of electricity generated and 651,349 tons of CO₂ offset by BioLite products. BioLite strategically subsidizes their cookstoves and solar panel products to sell to peri-urban and rural African households through carbon credits purchase agreements with the Government of Norway, other national governments, and private sector funders. Another example, Bandhan-Konnagar's THP model, demonstrated the impact that program graduates could increase the value of their productive assets by approximately 100 percent. The average monthly income of graduates was greater than \$77.50 by the end of the program.

Table 5 presents key scale metrics for each grant currently on the market.

TABLE 5: HIGHLIGHT OF KEY METRICS FOR ON-MARKET INNOVATIONS

Innovation	Data confirmed in December 2021
Babajobs Services Private Limited	<ul style="list-style-type: none"> ● Raised \$10 million in follow on funding. ● Available in 21 Indian cities, compared to five in 2016. ● Purchased by Quikr in 2017. ● 2016: 6.4 million jobseekers and 450,000 employers; 2017: 8.5 million jobseekers and 5 million employers.
Bandhan-Konnagar	<ul style="list-style-type: none"> ● Reached 72,184 beneficiaries in 2017; Reached 85,082 beneficiaries in 2019. ● Secured six new partnerships with public and private sector partners to expand the THP model, including four state governments. ● Program graduates increased the value of productive assets by 100 percent. ● Program graduates average monthly income increased by more than \$77.50.
BioLite	<ul style="list-style-type: none"> ● Strong consumer willingness to pay for the stove at Rs. 3,500 (\$51). ● Retail price point reduced company loss per unit from \$59.80 to \$9.81. ● The Government of Norway purchased an \$8 million carbon emissions reduction purchase agreement through 2021. ● Since DIV funding, secured additional eight to ten carbon emission reduction purchase agreements as the main subsidization of products sold. ● As of 2021, 10–15 distribution partners in Africa (according to key informants) ● Expanded across sub-Saharan Africa and the Philippines. ● Expanded from one product to six products. ● 3,268,478 million people reached during the life of the project (LOP). ● 653,696 units sold (LOP). ● 3,954,696 kilowatt hours of electricity generated (LOP). ● 651,349 tons of CO2 offset by BioLite products (LOP).
D-Rev	<ul style="list-style-type: none"> ● In 2019, sold 1,359 units; in 2021, sold 4,896 units (globally). ● In 2019, 250,000 neonatal babies were treated with phototherapy; in 2021, 1.17 million neonatal babies were treated with phototherapy. ● In 2019, averted 4,500 neonatal deaths from jaundice; in 2021, averted 16,101 neonatal deaths from jaundice. ● Received follow-on funding from the Bill & Melinda Gates Foundation (BMGF) and the Million Lives Club.
Dimagi Inc.	<ul style="list-style-type: none"> ● Secured a \$100 million grant in follow-on funding from BMGF to scale in Bihar state. ● Adopted by organizations in 80 countries. ● Included as part of 2000 projects. ● Employed by millions of front-line health care workers globally.
Orb Energy	<ul style="list-style-type: none"> ● Provides uncollateralized loans with interest rates of ten to 12 percent to customers.

	<ul style="list-style-type: none"> ● Secured \$15 million in follow-on funding from U.S. International Development Finance Corporation and the Netherlands Development Finance Company. ● Royal Dutch Shell New Energies company acquired a 20 percent equity stake. ● Increased from 30 to 50 sales managers in 2021. ● Expanded to new markets with larger customer profiles in 2021. ● Financed 8.4 megawatts of solar panels, expanding to 15 megawatts in 2021.
Pixatel Systems, Inc.	<ul style="list-style-type: none"> ● Established partnership with the Government of Nepal to deliver the platform to primary schools. ● Evidence indicates that students can concentrate for more sustained learning periods with tablet-based learning mechanisms. ● Secured follow-on funding from the University of Pennsylvania (\$40,000) and the Weiss Fund for Research in Development Economics (\$72,000).
Pratham Education Foundation	<ul style="list-style-type: none"> ● The learning camps reached over 900,000 children in over 21 states across India. ● The learning camps indirectly impacted 15.7 million students through partnerships. ● As of 2021, the TaRL has directly impacted millions of students from grades three to five across the globe. ● The TaRL model has been replicated by national government partners in over ten countries in Africa, South Asia, and Latin America.
VisionSpring	<ul style="list-style-type: none"> ● As of 2021, partnered with 160 hospitals, expected to reach 250 by the end of 2021. ● Before 2018, screened 240,000 children; 2018, screened 500,000 children; 2019, screened 2 million children for eye health. ● In 2015 (End Of Contract), it sold 274,837 glasses; in 2019, sold 1 million glasses. ● As of 2021, sold 6.8 million glasses globally. ● Operates in 43 countries. ● Reduced the average unit price of glasses from \$18 to \$3 (target was \$6.51). ● Secured additional follow-on funding of \$500,000 from Alcon Foundation and Bohemian Foundation.

4. DRIVERS OF SUCCESS

This section synthesizes all findings relevant to an innovation's scale journey and its level of success in scaling and having an impact on target users. For this study, an **innovation was considered successful if the core model of the innovation was confirmed available to its target users in its target market system** at the time of this review.

Across the twelve grants included in this study, several key factors enabled or hindered an innovation's ability to scale for continued reach of target populations. This section discusses these factors by presenting examples of how innovation teams could leverage such factors to continue and expand their operations or how they presented major barriers for innovations to enter the market or continue to scale up. Findings are organized by the scale elements presented in the assessment framework. Further descriptions of each grant can be found in the grant profiles presented in Annex I.

4.1 PARTNERSHIPS

ESTABLISHING KEY TYPES OF PARTNERSHIPS TO MEET THE SPECIFIC NEEDS OF THE INNOVATION WAS ESSENTIAL TO FACILITATE SUCCESS.

Establishing and maintaining the right partnerships for the model and scale path was key to successfully scaling an innovation. Innovation teams that identified, secured, and fostered partnerships with the right types of partners, whether those are distribution, scaling, provider, technical, or investment partners, were able to successfully scale their innovation. Several examples of failing to establish the right kinds of partnerships for their model were attributable to insurmountable challenges faced by innovations that either had to pivot away from their intended model or those that never made it to market.

One example of how key partnerships enabled success is BioLite, which maintains a consistent partnership model with distributors. They work intensely and closely with key distributing partners who purchase their products at volume and sell them at the last mile. BioLite intentionally refers to its distribution network as partners instead of clients, or treating them only as paying customers, as they are viewed as integral stakeholders of BioLite's scaling strategy. They invest significant time providing training, services, and support for distribution partners to navigate and weather challenges faced. BioLite works closely with ten to 15 large distribution partners across Africa and approximately ten to 15 smaller last-mile distribution partners. BioLite attributes its continued success to these strong partnerships and their core model of intentionally providing high-touch and intense support services to their distribution partners.

D-Rev partnered with key capacity building providers to develop the capacity of its sales team to improve its outreach and communication model, which in turn helped drive growth. For example, they developed a partnership with project Extension for Community Healthcare Outcomes (ECHO) to build requisite contextual capacity amongst the sales personnel who would deal with doctors and patients in rural areas to explain jaundice and how the D-Rev product (phototherapy) would treat jaundice and avert neonatal death.

Dimagi partially contributed its rapid success to securing key scaling partnerships with the Government of India (GoI) to facilitate rapid scale within India. Dimagi was able to find champions within the GoI and political support, both of which were extremely important for scale. Dimagi owned the platform, but state

governments adopted it, which contributed to Dimagi's CommCare rapidly reaching 600,000 health care workers.

Bandhan-Konnagar pivoted during their DIV grant period to intentionally make stronger relationships with district and block-level officials and merge elements of their program with existing government programs. These connections with local officials facilitated Bandhan-Konnagar's ability to develop new scaling partnerships and establish new funding partnerships from other state governments and other types of investment partners, which directly facilitated their expansion and reach into new states in India.

A key informant shared that Pixatel secured a scaling partner with the Government of Nepal to scale their software, but they failed to secure the right type of scaling partner with the Government of India, which hindered their ability to scale the in-school distribution model in India. In India, key informants indicated that while they should have, Pixatel did not, target local or state governments in India, with whom education is managed. This would have been a necessary partner to scale the platform in schools directly and is still an option they may pursue in the future. However, as the direct-to-school distribution model yielded extensive logistical and operational challenges, Pixatel pivoted away from this distribution model to focus only on the app store to drive growth.

4.2 SCALING STRATEGY

THE LACK OF A CONSISTENT IN-COUNTRY PRESENCE HINDERED AN INNOVATION TEAM'S ABILITY TO RESPOND QUICKLY TO EMERGING CHALLENGES, EVOLVING CUSTOMER NEEDS, OR CHANGING CONTEXTS.

For most of the grants included in this study, those with an in-country presence were able to quickly pivot and respond to operational challenges and evolving contextual changes. All three grants that did not reach the market did not have a consistent in-country presence or strategic in-country partner and cited this as a significant challenge faced in their scale journey. Another grant, Pixatel Systems, while currently on the market, had to pivot away from its BOP target population and associated the driver of this pivot, in part, due to the lack of in-country presence to manage the innovation implementation on the ground.

For example, Bear Valley Ventures lacked an in-country partner and directly cited the lack of a consistent in-country presence as a reason for their inability to quickly pivot or identify additional opportunities for partners, investors, or generate consumer demand. The Pixatel Systems team is based in California (Silicon Valley) and did not have an in-country team or presence, which significantly hindered its ability to scale and distribute in schools and manage operational challenges as they arose. This issue specifically required Pixatel to entirely pivot their model away from their target users via in-school distribution and focus scaling on app store purchases, representing higher-income market segments.

4.3 MODEL

SUCCESSFUL GRANTS RAPIDLY PIVOTED TO ITERATE THE MODEL TO MEET EVOLVING USER NEEDS AND PREFERENCES.

Several successful grants intentionally sought evidence on customer needs and preferences, as well as thoughts about the innovation model design and delivery through market testing, customer feedback surveys, or a structured monitoring and evaluation system. Successful teams learned from this data, quickly iterated the model design or delivery to meet evolving needs, and found success in driving growth.

Babajobs' platform was adaptive to evolving user needs and preferences in real-time. For example, during the grant period and before cheap internet connectivity was widely available in India, Babajobs leveraged interactive voice response (IVR) and SMS to grow their platform. As internet penetration increased, Babajobs scaled down their SMS and IVR mechanisms. They scaled up their earlier investments in the mobile application, which eventually took over as the leading registration mechanism. The platform also added eight local languages to the mobile web feature to expand their user reach to new locations and new users across the country.

D-Rev quickly pivoted to respond to monitoring evidence that indicated user needs were not being met by their delivery model. D-Rev adapted its marketing strategy to tailor messages to local markets based on their needs and target users' revealed preferences. D-Rev also responded to monitoring evidence regarding barriers to scale, namely, to meet additional target market segments from lower socio-economic classes with limited purchasing power. To address this issue, D-Rev implemented an equated monthly installments model - a small portion of the total amount was charged while placing the order, and the remaining amount was distributed into three equal monthly installments, which helped drive sales; approximately 30 percent of all equipment is being bought on EMI.

4.4 EVIDENCE

SUCCESSFUL GRANTS LEVERAGED EVIDENCE OF IMPACT TO REACH SCALE.

Successful grants strategically leveraged evidence of their model's impact on social outcomes for their target user to secure additional distribution and scaling partnerships, funding, and resources to continue their scale. Two innovations, Pratham and Bandhan-Konnegar, utilized demonstrated evidence of impact generated by their partners at Abdul Latif Jameel Poverty Action Lab (J-PAL), specifically, to advance these scaling goals.

Pratham Education Foundation has over two decades of experience generating and utilizing strong evidence of impact for the TaRL model and its iterations to secure new partnerships and facility scale and reach. In addition, Pratham has a long-standing relationship with J-PAL and its founders, who has implemented a series of randomized controlled trials (RCTs) to rigorously test the impact and effectiveness of the TaRL and its iterations over twenty years. This evidence has been widely published in various outlets, including high ranking academic journals, YouTube videos, sector reports, and instructional handbooks. Pratham and J-PAL have studied a variety of outcomes of the model, including the effectiveness of implementation strategies to the impacts on student learning and retention.³ This strong evidence has informed key pivots to iterate the model and secure partners to fuel scale to improve learning outcomes for students globally.

Bandhan-Konnegar leveraged evidence of impact for program graduates to secure many new strategic partners across non-governmental organizations (NGOs), state and local government, and the private sector. For example, through Bandhan's partnership with J-PAL, which initially focused on evaluating the impact of the model, Bandhan was directly linked to the Mahashakti Foundation, which helped implement the THP model for 100 intended beneficiaries in Odisha state, using the evidence of impact generated by J-PAL as a justification for quick uptake. They engaged with the Government of Odisha to establish a

³ Pratham Foundation. A guided tour of Teaching at the Right Level. Accessed 2022. <https://www.pratham.org/about/teaching-at-the-right-level/guided-tour-tarl/>

partnership to deliver the THP model, representing a new public funding opportunity, to scale the program to 10,000 households.

The Bear Valley Ventures example highlights how the lack of evidence stymied their scaling journey. Bear Valley had a committed distribution partner with high market penetration, but they failed to produce evidence of a clear demand for product or clear evidence of impact of the product. Thus, it failed to secure the necessary investments to take the product to market via established distribution partners. They also lacked a clear, distinguished brand identity that made it hard to generate trust or recognition among target consumers. This lack of brand identity made it hard to generate trust among consumers for their product. Without the evidence of demand, investors found the product too risky to invest in and backed out. Post-DIV funding, the lack of identified funding for the commercial pilot led to a standstill, and the product never took off.

HOWEVER, THE DEMONSTRATION OF IMPACT ALONE WAS NOT NECESSARILY THE ONLY DRIVER FOR SCALE AND REACHING TARGET USERS.

Several innovations demonstrated evidence of their impact on target populations. However, this evidence alone was not enough of a driver to scale the innovation to reach its target users *en masse* and demonstrate social outcomes. Innovation teams needed a shared vision of the scaling, business, and social outcome strategies with their intended scaling partners, in-country partners to assist in navigating on the ground challenges, and strategic partners to facilitate a path towards scale to reach target users. Strategic partners are those that meet and fill the critical, specific needs of an innovation's scaling strategy.

As previously mentioned, Pixatel was required to pivot their model to focus on growth via the app store given the lack of strategic partners in India (see section 4.1 for more detail), lack of an in-country presence, and after facing significant operational challenges, specifically related to an employee whose performance was lacking and upon being fired, sought retribution against the company (see Pixatel's grant profile in Appendix A for additional discussion). While this pivot continues to enable them to scale via the app store, their impact is muted from its original thesis. It has shifted the target user from low-resource and poorer primary school students with limited access to quality education to higher-income students in wealthier market segments with more resources.

Another example is Violet Health, which demonstrates the strong impact of the iron-fortified biscuit and strong user demand and preference. However, the company was challenged with a limited in-country presence, the lack of strategic in-country partners, issues navigating regulatory environments, and the COVID-19 pandemic hampered its ability to reach scale. After the Stage 1 DIV-funded pilot, Violet Health planned to scale up to Stage 2 to test the biscuit with a wider population and to test distribution models but did not receive the funding and had to pivot. Additionally, during the DIV Stage 1 grant period, Violet Health conducted clinical studies that took two to three years, during which the Gol was revamping their food regulatory system, further delaying their timeline by a year. Violet Health finally received approval from the Gol in 2017 for their clinical studies; they then unsuccessfully tried to partner with the Gol to scale the biscuits and cited a lack of consistent, in-country presence as a challenge to securing this partnership. By 2020, Violet Health was in due diligence with a large pharmaceutical company to license the biscuits, but COVID-19 hit, which has since delayed the entire deal as well as their on-the ground operations to market the product.

A third example includes ideas42's Financial Heuristics program. Despite demonstrating moderate evidence of impact on certain outcomes, ideas42 failed to develop as a commercial off-the-shelf product, and it is still not market ready. The development team has been challenged with conflicting internal intentions to adapt the program to fit a model that can adapt to user needs and be commercialized. The team could provide data supporting credit assessment for financial institutions, but they have not been able to agree and strategize towards a way forward. The team still considers the program an interesting project and not a product. Thus, their inability to see beyond the program's impact on improving financial literacy hampered their ability to move the project to a product with a broad reach.

4.5 FINANCIAL VIABILITY

DIV WAS A SUPPORTIVE FUNDING PARTNER THAT PROVIDED FLEXIBLE FUNDING AT CRITICAL JUNCTURES FOR AN INNOVATION'S SCALE JOURNEY.

Only a few key informants could share feedback and anecdotal observations on their experience working with DIV as a funder. Feedback shared by key informants highlighted the importance of flexible DIV funding at a critical stage in innovation testing, design, or piloting to enable key pivots and iterate the model for success. It was noted that the DIV team was a very supportive funding partner and extremely understanding of different challenges grant teams faced during their project period. The grantees felt that the DIV team was actively engaged and eager to provide feedback during check-in calls.

Key informants shared some feedback to improve the DIV-grantee relationship in future rounds. Of note, certain informants shared that they had expected DIV to make strategic connections with other key players in their innovation space to help facilitate scale, similar to an investee-investor relationship. Moving forward, DIV should more clearly communicate how they can support grant teams beyond just funding to maintain clear expectations for both parties. And to the extent that DIV can facilitate strategic introductions or connections with the private sector or other key stakeholders that could support the grantee to scale, that would be an important area of support.

SECURING FOLLOW-ON FUNDING BEFORE DIV FUNDING ENDED WAS KEY FOR SEVERAL SUCCESSFUL GRANTS.

Several successful grants secured key follow-on funding before the DIV grant ended, which enabled them to continue piloting their innovation or scaling their market-tested product and drive growth without a lag. For example, Dimagi's CommCare is a success story. They secured an impressive grant of \$100,000,000 from the Bill and Melinda Gates Foundation (BMGF) to specifically scale the platform in Bihar state. This funding enabled them to continue scaling the CommCare platform after DIV funding ended and providing the high-touch design inputs necessary to tailor the product to each local market. They also strategically utilized the evidence of their proof of concept generated with the DIV funding and flexibility tied to the DIV funding to market CommCare and establish new distribution and investment partners to expand operations globally, which they have successfully done.

For another example, Orb Energy was able to test demand for a new financial product, test risk mitigation strategies, and generate specific proof points for new investors under its DIV funding, which in turn enabled Orb Energy to raise an additional \$15 million from U.S. International Development Finance Corporation and the Netherlands Development Finance Company to continue its financing operations for SMEs after their DIV funding ended. They attribute their growth and continued success in meeting their

objectives with the in-house financing product they offer to have sufficient funds available to pivot, take risks as needed, and meet user demand.

4.6 CONTEXTUAL ELEMENTS

CONTEXTUAL FACTORS ENABLED SUCCESS OR CREATED INSURMOUNTABLE CHALLENGES.

Successful grants were able to capitalize on changing factors in the Indian context, such as changing market conditions or new national initiatives promoting best practices, to leverage the penetration of their model in the market. However, some grantees who were unsuccessful noted that they failed to capitalize on such contextual changes, which was a missed opportunity.

For example, Babajobs experienced a growth surge during India's demonetization period, which brought more people and businesses online, creating an upsurge of internet connectivity that played an important role in success during Babajob's scale journey.

The Bear Valley Ventures example highlights how an innovation team missed a key opportunity to tap into and leverage contextual factors, such as the growing national interest in promoting hygiene driven by the new government in India, to generate demand and scale their product. The product failed to take off despite massive goodwill and a rising wave of interest in promoting hygiene in India driven by initiatives of the new government. A missed opportunity to tap into the growing national interest in hygiene by seeking other partnerships (e.g., schools) limited the product's potential at the institutional level.

5. CONCLUSIONS AND RECOMMENDATIONS

This study aimed to provide an update on select funded innovations in DIV's India portfolio. Several innovations have experienced massive scale and impact in India and globally across several sectors. And other innovations faced serious challenges in getting their product to market to reach their intended audiences, limited in both scale and impact. Across the 12 grants included in this review, several key factors helped to enable success, and others hindered success in scaling and reaching target populations with social outcomes.

Successful grants mostly had a strong in-country presence, which enabled them to quickly pivot and adapt to changing contextual elements and manage on the ground operational challenges. They were also able to identify and secure strategic follow-on funding before the end of their DIV grant to continue their testing and scaling strategy. Evidence of impact alone did not drive success, but those with strong evidence were able to leverage this evidence of impact to secure key additional scaling partners and funding. Establishing key partnerships that were strategic to advance the needs of the innovation's model to reach its target users was an essential element to facilitate an innovation's scale and impact. The public sector was a key distributing partner for the twelve grantees included in this study; the Gol and other national and state governments were key to rapid scale within India and beyond. Other grants found success in identifying key distribution partners that aligned with their social mission and business model.

Finally, key informants shared overall positive feedback on the DIV experience. The flexible funding came at a critical stage in an innovation's scale journey. The DIV team was considered an extremely supportive partner, although DIV could intentionally facilitate more connections with innovation teams and provide targeted technical assistance to support scale moving forward.

5.1 RECOMMENDATIONS

Based the insights learned from this review, the ET presents several recommendations for DIV's consideration. When conducting due diligence, the ET recommends that DIV ensures applicants can articulate an internally shared vision for both the product development and the business strategy to bring the product to market. As part of this articulated vision, applicants should be able to speak cohesively to how the team internally manages adaptation and strategy pivots when presented with new challenges or evidence. DIV can also look at applicants' proposed M&E plans and ensure applicants can articulate how and when monitoring data will be collected and how it will be used to inform the product itself or scaling, delivery, or management business strategies.

The ET recommends that DIV adapts its assessment model to include a set of customizable success metrics and business diagnostics that will support portfolio management across a range of country contexts. Success metrics should balance potential for impact and scale along with sustainability considerations across the life cycle of DIV support. Business diagnostics can be adapted from best practices widely used by impact investors (e.g. those developed and catalogued by GIIN) and include more touch points with grantees, which can be supported via a DIV Technical Assistance (TA) Facility that provides a range of TA options, including support to grantees for any necessary adaptations, while also facilitating real-time data collection at critical stages of an innovation team's growth. Impact data collected via a TA Facility could

be used to support grantees in forging new partnerships and accessing additional sources of funding to fuel growth, while also supporting DIV's own portfolio management process, including important decisions related to increasing support, cutting losses, and balancing the portfolio to maximize overall results.

In addition to impact data, a local presence and partnerships were identified as key elements of success in DIV's portfolio in India. To support the development of local networks, it is also recommended that DIV develops and manages a peer-to-peer learning approach, with annual gatherings of current and past grantees that include presentations of innovation and impact, promotion of mentorship and peer-to-peer learning opportunities and partnership development activities. In addition to current grantees and DIV alumni, annual events can be attended by a range of public and private sector stakeholders, other donors, financial institutions, and investors, catalyzing an eco-system of support for DIV grantees as they continue to scale their operations and impact. DIV can also work with other OUs and Missions to be more intentional about establishing linkages or facilitating strategic connections with other key players in their innovation space to help facilitate scale, similar to an investee-investor relationship.

Given limited bandwidth of USAID staff, a DIV TA facility and peer-to-peer learning approach could be managed globally or regionally with support from a USAID implementing partner. This support function could also seek to leverage additional resources from other stakeholders, donors or investors with like interests in accelerating the growth and impact of innovative companies and local organizations.

ANNEX I: GRANT PROFILES

BABAJOBS SERVICES PRIVATE LIMITED – EMPOWERING INFORMAL SECTOR JOB SEEKERS

TABLE 6: GRANT I PROFILE SUMMARY	
Award Name	Empowering Informal Sector Job Seekers
Organization Name	Babajobs Services Private Limited
Location	India
Timeframe	2013–2016
Grant Stage	2
Grant Type	Operations
Solution Type	Process
Grant amount	\$1,167,285
Main Findings	M&E; Model Iteration; Follow-on Financing; Contextual Factors

INNOVATION SUMMARY: Babajobs is a mobile application using interactive voice response (IVR) and short message service (SMS) to connect job seekers in the informal sector to job opportunities with hiring employers. It has since expanded to match jobseekers and employers in higher-income market segments.

DEVELOPMENT PROBLEM ADDRESSED: The Babajobs solution sought to address unemployment and underemployment for low-skilled, informal sector workers. In doing so, it aimed to increase employability, connect employers and employees, reduce information asymmetry in the jobs market, and improve livelihoods and income levels. The solution also included upskilling through partnerships with schools and vocational training institutes for trained employees.

INNOVATION TARGET USERS: Informal sector workers (e.g., target potential employees) of the workforce, mainly in the service sector (such as maids, drivers, electricians, and others) and employers, were the main target users of Babajobs. The threshold of current income was Rs. 12,000 (\$161.68) per month or those registered as unemployed.

INNOVATION MODEL: The innovation model was a job matchmaking service for employers and employees, specifically low-skilled jobseekers in the informal sector. Babajobs targets low-income clients in the informal sector to match them with job opportunities in the informal sector directly. Typically, this market is fragmented with a high reliance on physical, social networks riddled with poor or inaccurate information. The platform leveraged diverse delivery and distribution channels, including mobile phones (SMS and IVR), websites, and a smartphone application to formalize the job posting and searching functions to enhance supply and demand matching for employers and job seekers in the informal labor sector. Initially, Babajobs’ model revenue had job seekers choosing to pay Rs. 0.02 (\$0.0003) per SMS to receive alerts of local jobs or job openings.

PURPOSE OF DIV FUNDING: The DIV funding was to help develop and launch the IVR platform and mobile application for job seekers and scale marketing and sales strategies to expand to new cities.

SCALE JOURNEY: By the end of the grant period, Babajobs scaled up to 6.4 million job seekers and 450,000 employers, exceeding its initial target by more than two and four and a half times, respectively. While the scale of usage by job seekers and employers was large, it is unclear from the grant documents how many applications were downloaded by the end of DIV funding, against a target of ten million. During the grant period, Babajobs implemented several important strategy pivots, including trimming the initially planned content delivery for vocational training, strengthening IVR investments, and shifting fees from employees to employers. Specifically, Babajobs dropped user fees from employees and charged employers fees through a premium product called RapidHire. Babajobs also pivoted to establish new revenue sources by charging for their data for research purposes.

PERFORMANCE: Babajobs performed well not only in scaling out but also managing to secure follow-on financing from private equity investors, including SEEK⁴ (who acquired 30 percent of the firm during the DIV grant), and Khosla Impact, for approximately \$10 million. In 2017, Babajobs was bought out by Quikr after eight and a half million verified job seekers, and five million employers had used the service.

By 2021, the Babajobs service was available in 21 cities in India, an increase from the five initial cities during the DIV-funded pilot. While Babajobs initially began targeting low-skilled jobs in the informal sector, it evolved to include formal sector businesses, leading to higher usage. Entry-level jobs in retail, drivers, business process outsourcing (BPOs), and telecentre employees continue to drive business for the Babajobs service. Users are registered using IVR at a much cheaper acquisition costs, although these operations have recently been scaled down as internet connectivity and usage increased throughout India.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Most progress during the grant period came from the IVR platform, but later, a big upswing happened with a “perfect storm” of more online access to blue-collar workers and small businesses. Contextual factors such as India’s demonetization, which brought more people and businesses online, and an upsurge of internet connectivity played an important role in success during Babajob’s scale journey. Not charging job seekers for registering and searching jobs (free) and including a freemium model for employers⁵ were innovative models that worked well. The platform was adaptive and evolved to ground realities in real-time. For example, during the grant period and before cheap internet connectivity was available at scale in India, Babajobs leveraged IVR and SMS to drive growth in volumes. As internet penetration improved, SMS and IVR were scaled down, and the earlier investments in the mobile application started gaining prominence and took over registration via SMS and IVR. The platform added up to eight local languages to the mobile web feature to reach users across language groups and allow job seekers to register and apply in their preferred language. This helped expand the number of people and locations the platform could reach to a significant swath of the country. Additionally, investors were very attracted to the platform as it had already processed one million applications and therefore had a strong database of worker data.

The KIs also highlighted that diversity of the team’s experience, and expertise was important to their success. Their functional diversity spanning technology, partnerships, and sales worked well, and the firm’s founders hired operations experts to fill notable gaps in the team’s capacity.

⁴ SEEK Limited is an Australian company (listed on the Australian stock exchange) comprised of a diverse portfolio of companies focused on helping people live more fulfilling and productive lives and helping organizations succeed. (<https://www.seek.com.au>)

⁵ The freemium model for employers allowed them to post initial jobs but charged a fee for their continued use of the service.

BANDHAN-KONNAGER – SCALING-UP TARGETING THE HARD-CORE POOR

TABLE 7: GRANT 2 PROFILE SUMMARY	
Award Name	Scaling-up Targeting the Hard-core Poor (THP)
Organization Name	Bandhan-Konnagar
Location	India
Timeframe	2014–2017
Grant Stage	2
Grant Type	Operations
Solution Type	Process
Grant amount	\$1,467,537
Main Findings	Key Partners; M&E; Evidence of Impact

INNOVATION SUMMARY: The Targeting the Hardcore Poor (THP) model program targets bottom of the pyramid (BOP) women to improve their financial and livelihood security to facilitate graduation from poverty.

DEVELOPMENT PROBLEM ADDRESSED: Through the graduation model, Bandhan sought to address ultra-poverty, unemployment, and a lack of economic opportunities among the target users. Specifically, Bandhan targets a lack of access to credit, training, services, resources, and assets.

INNOVATION TARGET USERS: The innovation targeted the hardcore poor to provide them with confidence building, enterprise development training, access to income-generating opportunities and assets, financial inclusion training, and business grants.

INNOVATION MODEL: The model (Targeting the Hardcore Poor/THP) worked on the hypothesis that by enhancing income and livelihood assets among the poorest of the poor, they would generate sustainable livelihoods and effectively participate in the economy. The model specifically intervenes to improve financial and livelihood security for marginalized women in Bihar and Odisha states with the outcome goal to graduate them from poverty.

PURPOSE OF DIV FUNDING: The DIV funding was intended to develop an updated program implementation plan and draw up an advocacy plan to attract new funds and donors and have a higher impact for achieving poverty alleviation outcomes, such as financial inclusion, income generation, assets, and graduation out of poverty.

SCALE JOURNEY: Bandhan-Konnagar underwent several iterations on its journey to scale, particularly related to its outreach and partnership strategies and linking intended beneficiaries with existing government social security schemes. Specifically, the program pivoted to intentionally make stronger relationships with district and block-level officials and converge program elements with existing government programs. The program was then able to develop new partnerships and garner new funds after successfully making stronger connections with local officials well before the graduation phase.

Outreach activities expanded into new states and districts within current states (Rajasthan, Bihar, and Jharkhand) with support from the state governments. In Odisha state, a scale-up for 10,000 households

was planned by the end of the grant period and expansion into additional states (West Bengal, Punjab) via state governments.

PERFORMANCE: The program was able to scale both within the initially planned geographies and in new ones. By the end of DIV funding, the program reached 4,350 beneficiaries, meeting contract key performance indicators. The model successfully demonstrated that graduates of the program were able to increase the value of their productive assets by approximately 100 percent, and the average monthly income of graduates was greater than \$77.50 by the end of the program.

The program also was shown to be very cost-effective, costing \$350 per participant. In addition to securing new funding partners, Bandhan used existing profits from its microfinance operations to fuel expansion across India. The project successfully secured new funds and developed a new set of partnerships with other departments and state governments, to continue implementing the graduation model in new areas. Beyond the ambit of DIV funding, by the time of the close of the grant, the THP/graduation model was able to reach 72,184 beneficiaries. By 2019, the program reached 85,082 intended beneficiaries. The team secured six new partnerships, spanning the public and private sector, including four state governments, SIDBI (a government small industries lending unit), and ITC (a large business entity in India).

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: While the core team was engaged in the direct implementation of the model, it leveraged key relationships, cost-shares, and partnerships to facilitate continued scale and impact. A key factor for success was the ability of Bandhan to leverage evidence of impact to secure many new strategic partners across NGOs, state and local government, and the private sector. Outreach and advocacy with state governments at multiple levels was a strong enabling factor to implement the program and secure cost-share in additional areas to reach more intended beneficiaries for impact—several examples for how this enabled scaling success follows.

Bandhan's partnership with J-PAL, which initially focused on evaluating the impact of the model, directly linked the THP model to the Mahashakti Foundation, which helped implement the program for 100 intended beneficiaries in Odisha state. Engagement with different departments of the Government of Odisha also led to finding new public funding opportunities to scale the program to 10,000 households.

In Jharkhand state, Bandhan made strong connections with district-level officials to ensure the smooth transition of funds and local government to reach 2,000 ultra-poor, women-headed households. In Rajasthan, Bandhan engaged with officials in Rajasthan Grameen Aajeevika Vikas Parishad (RAJEEVIKA), a government-established autonomous society under the Department of Rural Development in Rajasthan, and officials at the state and district levels. In Bihar, JEEVIKA and the State Rural Livelihoods Mission (SRLM) formally signed an agreement with Bandhan-Konnagar to transfer knowledge of the evidence-based THP model, with 24-months of on-site support. The project also focused on rigorous evidence generation and dissemination of the model's impact. By 2021, the program continues to leverage evidence of impact to finalize new partnerships with other public departments. Finally, the project successfully converged with existing government programs to expand its reach, such as connecting with beneficiaries of interventions implemented by the Animal Husbandry Department in Bihar. Evidence of impact for these beneficiaries is unclear from this review.

BEAR VALLEY VENTURES – HAND HYGIENE PRODUCT INNOVATION FOR THE POOR

TABLE 8: GRANT 3 PROFILE SUMMARY	
Award Name	Hand Hygiene Product Innovation for the Poor
Organization Name	Bear Valley Ventures
Location	India
Timeframe	2013–2014
Grant Stage	I
Grant Type	Operations
Solution Type	Product
Grant amount	\$156,200
Main Findings	Lack of Key Partners; Lack of Evidence of Impact; Lack of In-country Presence; Contextual Factors

INNOVATION SUMMARY: Bear Valley Ventures developed and market-tested an affordable, effective, environmentally responsible, and desirable hygiene product that encouraged households to wash their hands post defecation with the overall aim to reduce diseases related to poor hygiene.

DEVELOPMENT PROBLEM ADDRESSED: The DIV funding supported the creation of a scalable hand cleansing product designed as a social business. The product targeted low-income, bottom-of-pyramid households in urban settings, where people typically have only limited access to basic sanitation measures and face considerable hygiene challenges in their daily lives. In poor communities, the innovation aimed to reduce unnecessary and avoidable sickness and death caused by poor hygiene practices, such as diarrhea and respiratory infections.

INNOVATION TARGET USERS: The innovation targets low-income and poor households with limited or no access to basic hygiene and sanitation knowledge and measures in Indian urban settings.

INNOVATION MODEL: The innovation model included an affordable, effective, environmentally responsible, and desirable hygiene product that encouraged households to wash their hands post defecation habitually.

PURPOSE OF DIV FUNDING: The DIV funding was used with the aim to establish a proof of concept that the main product (Byotrol) was appealing and at an appropriate price point for target consumers and that the secondary product (Super water with Byotrol) was technically viable and had consumer appeal. The DIV funding was also intended to enable Bear Valley Ventures to develop a compelling consumer brand and product proposition market testing beyond the Proof of Principle phase. Bear Valley developed a market path for the product and established a commercial operations framework and key partnerships for market testing, however experienced challenges detailed below.

SCALE JOURNEY: Bear Valley planned to scale via collaboration with a partner organization with high penetration and trust amongst Indian consumers and established sales and distribution networks. The target audience initially well-received the hand cleaning gel, but commercial scaling plans experienced

challenges. During the grant-funded period, in collaboration with the partner organization, Bear Valley drafted a commercial pilot strategy with plans for branding and distribution. The pilot targeted 1,000 to 2,000 households to measure penetration, initial and repeat sales, and costs/unit sale. The commercial pilot was key to understanding the right price point and user willingness to pay for the products. However, even though Bear Valley had a committed partner organization to support the business model readiness, it experienced significant challenges in securing financing for the commercial pilot. Bear Valley could not produce evidence for demand and was missing a clear brand identity, making it hard to generate trust among consumers. According to the key informant, commercial funders were not prepared to take risks on this product, especially with no evidence of demand. Post-DIV funding, the lack of identified funding for the commercial pilot led to a standstill, and the product never took off.

PERFORMANCE: Despite a strong, committed partner and existing goodwill, the Bear Valley hygiene products never took off. Post-DIV funding, the main challenges faced included a lack of follow-on funding, inability to identify the price point where the target user was willing to pay for the product, and a poor brand identity that did not resonate with the target user audience and thus, a lack of ability to generate demand for the product.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: The product failed to take off despite goodwill and a rising wave of interest in promoting hygiene in India driven by initiatives of the new government. A missed opportunity to tap into the growing national interest in hygiene by seeking other partnerships (e.g., schools) limited the product's potential at the institutional level. Potential investors declined due to the risk and because they could not place the product within their own geographic and audience niches. A large impact investor did offer to finance, but with extremely unamenable legal terms, and therefore was not a viable option. Finally, the lack of a local partner in India hindered the team's ability to pivot or seek additional opportunities.

BIOLITE HOMESTOVE – GENDER PREFERENCE BARRIERS TO IMPROVED COOKSTOVE ADOPTION

TABLE 9: GRANT 4 PROFILE SUMMARY	
Award Name	Gender Preference Barriers to Improved Cookstove Adoption
Organization Name	BioLite Homestove
Location	India
Timeframe	2013–2015
Grant Stage	2
Grant Type	Evaluation
Solution Type	Process
Grant amount	\$1,500,000
Main Findings	Key Partners; M&E; Model Iteration; Evidence of Impact; Contextual Factors

INNOVATION SUMMARY: BioLite developed and sold the HomeStove, an alternative cookstove product that improves users’ health, reduces household fuel costs, and mitigates carbon emissions associated with traditional fuel sources. BioLite has expanded to solar panel systems and green cookstove products for peri-urban and rural off-grid households.

DEVELOPMENT PROBLEM ADDRESSED: The Biolite HomeStove aims to improve the shortcomings of cookstoves currently available on the market by offering unparalleled smoke reductions in an affordable, user-friendly design. This product aims to improve the health of users but reducing smoke by-products and improving air quality during usage, enabling households to save on fuel costs, thus increasing portions of available household budgets.

INNOVATION TARGET USERS: The Biolite HomeStove targets low-income households, including women and men, who currently use traditional fuel or biomass, such as firewood, dung, crop residue, and coal/charcoal, for cooking and other purposes.

INNOVATION MODEL: Using a gasifier stove technology, the model provides greater than 90 percent smoke reduction compared to the available cookstoves by adding fans to promote complete combustion. In addition, unlike regular gasifier stoves, which require an external electricity supply, Biolite leverages the patented Direct Conduction Thermoelectric System (DCTS), which eliminates reliance on external power sources while also providing an opportunity to deliver a small amount of electricity to off-grid consumers. The stove is currently capable of producing two to four watts of electricity while running over three hours, which is enough power to fully charge both a cellphone or other electronic devices and an evening’s worth of light-emitting diode (LED) light. This unique capability provides immediate value to both women users and men purchasers, augmenting long-term returns from fuel savings and improved health.

PURPOSE OF DIV FUNDING: The DIV funding was intended to generate evidence of the impact of the product on gender-specific outcomes. In addition to generating evidence, the DIV funding also enabled several pivots that allowed the innovation to improve its operations and commercialization.

SCALE JOURNEY: In its initial stages, Biolite HomeStove began with 50 stoves in 2013 as a pre-pilot in Odisha state. During the pre-pilot, the BioLite India team grew from one to 20 full-time staff, including two senior managers, three project associates, one data and research manager, two cluster managers, and 12 BioLite Burners/sales agents. The stoves were initially sold on the Greenlight Planet channel as a successful conduit to scale. Then Biolite opened their first flagship store, the first HomeStove retail experience. After selling 1,400 HomeStoves in the first seven months, Biolite expanded to Assam state in northern India. This expansion aimed to achieve two objectives: 1) test consumer willingness to pay for the HomeStove with a price of Rs. 3,500 (\$51), an increase from Rs. 2,500 (\$36) in Odisha; and 2) pilot a single-layer sales distribution model that compressed the existing multi-layer model in Odisha by combining the Sales Promoter and local level agents.

PERFORMANCE: BioLite saw high demand for the HomeStove in Mizoram state, which became one of the most successful markets for the HomeStove despite Biolite's not formally establishing operations there for a long time. Biolite launched a partnership with the microfinance company Fullerton India Credit Company, which offered the HomeStove on credit in response to user demands and saw very strong month-over-month growth. Biolite then established a replicable "market activator" partnership model, successfully rolled out to other microfinance partners globally.

Biolite found a strong consumer willingness to pay for the stove at Rs. 3,500 (\$51), which enabled the company to shift from an economic loss of \$59.80 per unit to a profit of \$9.81 per unit. Eventually, Biolite secured follow-on funding with the Government of Norway through an \$8 million carbon emissions reduction purchase agreement, which purchases Biolite's Clean Development Mechanism (CDM) carbon credits through 2021.

Since the DIV funding ended, the economic crisis in India during 2016-2017 forced BioLite to close their India operations and shift full attention to the SSA market. They established core operations in Nairobi and acquired a smaller company in 2019 in Kenya, which helped fuel their growth in the sub-Saharan African (SSA) market. They now have expanded to a larger suite of products, including solar panel systems (their leader product). They work as a B2B model to sell products to their distribution partners. They also provide high-touch and intense support services to facilitate their growth and operational capacity.

As of 2021, it has seen tremendous success in generating impact in the household energy sector across Africa and Asia (the Philippines) since its inception. To date, 3,268,478 million people have been reached through their household cookstove units and solar panel system units, with 3,954,696 kilowatt-hours of electricity generated and 651,349 tons of CO₂ offset by BioLite products. To date, BioLite has sold 653,696 units. BioLite strategically subsidizes their cookstoves and solar panel products to sell to peri-urban and rural African households through carbon credits purchase agreements with the Government of Norway, other national governments, and private sector funders.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Biolite's HomeStoves have seen considerable success, which was enabled through several iterations and pivots. During the DIV grant period, Biolite shifted certain approaches to integrate best practices on training and incentivizing sales agents, marketing strategy, and last-mile logistics. For example, due to damages caused during transit, Biolite improved their package and shifted their logistics from trains, and public buses to a safer transit means, namely private trucks. Biolite continued to improve on their training model of sales agents to reinforce and introduce new learnings during each successive training session. Biolite also leveraged best practices and knowledge from partners about informal credit options for consumers to establish partnerships with microfinance

companies and provide that option for consumers. This proved to be a successful strategy pivot, as Biolite experienced substantial demand for HomeStoves on credit. During the DIV funding, Biolite's marketing strategy also pivoted to adapt materials, such as handbills, banners, posters, and flip chart stories, to be contextually appropriate to each Indian locality.

Additionally, the HomeStove proved to be a customer acquisition tool for partners, which helped to incentivize partners for distribution and scale when they were still operating in India. For example, the partnership with the Greenlight Planet (GLP) channel saw most early HomeStove sales to existing GLP customers. Over time, this sales segment decreased for Homestove, but the GLP network maintained those customers brought in by the HomeStove. The Fullertown network also saw a similar trend, where non-Fullerton customers were introduced to the HomeStove. As a result, the customers joined Fullerton to access credit to purchase the HomeStove, bringing in new customers for Fullertown.

Beyond BioLite's learnings during their operations in India, they have learned that a key to their continued success in SSA and the Philippines is their continued dedication to their established model, which follows a B2B approach in delivering their product to distributor partners. They invest significant resources in providing capacity building, best practices, and high-touch support to their distribution partners to navigate and respond to challenges. They are currently identifying reliable credit options and financing packages for their distribution partners.

D-REV: DESIGN FOR THE OTHER NINETY PERCENT – SCALING BRILLIANCE: EFFECTIVE AND AFFORDABLE PHOTOTHERAPY

TABLE 10: GRANT 5 PROFILE SUMMARY	
Award Name	Scaling Brilliance: Effective and Affordable Phototherapy
Organization Name	D-Rev: Design for the Other Ninety Percent
Location	India
Timeframe	2016–2019
Grant Stage	2
Grant Type	Operations
Solution Type	Product
Grant amount	\$1,245,977
Main Findings	Key Partners; Model Iteration; M&E; Follow-on Funding

INNOVATION SUMMARY: D-Rev modeled strategic awareness campaigns of using phototherapy treatment for jaundice among newborn babies and to improve the use of phototherapy to treat jaundice and reduce its incidence, targeting doctors, influencers, and household purchase decision-makers.

DEVELOPMENT PROBLEM ADDRESSED: D-Rev sought to tackle the problem of jaundice among children, which is compounded by poor medical diagnosis owing to lack of equipment and a general lack of awareness about the disease. D-Rev aimed to do this by improving jaundice diagnosis and treatment and closing the neonatal jaundice care gaps through effective phototherapy treatment in the high need areas of the Indian states of Madhya Pradesh, Uttar Pradesh, and Bihar.

INNOVATION TARGET USERS: D-Rev’s direct target users included doctors and clinics, and indirect target beneficiaries ultimately were poor households with children in the states of Madhya Pradesh, Uttar Pradesh, and Bihar.

INNOVATION MODEL: D-Rev’s innovation model brings effective phototherapy treatment to scale in high-need regions where there is a lack of awareness among doctors, influencers, and purchase decision-makers for effective, low-cost medical devices to treat and diagnose jaundice.

PURPOSE OF DIV FUNDING: D-Rev used the DIV funding to support the medical equipment distribution and coverage and conduct an impact assessment to generate evidence. The learnings from the India implementation were used to inform the scale-up of the model in Africa.

SCALE JOURNEY: D-Rev’s model operated on the assumption that increasing awareness and availability of better equipment to treat jaundice would lead to better diagnosis and treatment, and therefore reduce morbidity. The grant was able to scale during and post the DIV funding period. A successful enabler of the scale was a strong ability by D-Rev to educate doctors on the benefits of using high-quality LED-based phototherapy machines to treat neonatal jaundice. This led to direct sales of the treatment equipment to hospitals and clinics.

D-Rev also pivoted to improve sales, specifically around their internal hiring practices. Initially, D-Rev targeted sales and marketing experience in healthcare as a key candidate requirement but changed to

target recent biomedical engineering graduates and rural management graduates after experiencing poor results with the sales and marketing team members. D-Rev also introduced a referral system to help recruit a better pool of candidates and reduce the costs of contracting a hiring agency to fill their team with the right people.

Beyond hiring practices, D-Rev implemented new best practices in their model, including establishing a follow-up visit to customers three months after medical equipment installation. This allowed D-Rev to collect direct feedback from doctors and other hospital staff and monitor the usage of the device.

PERFORMANCE: During the DIV funding period, D-Rev performed well. Initially, D-Rev targeted to sell 250 units and only sold 79 in India. But by the end of DIV funding in 2019, D-Rev sold 1,359 units globally. By the end of 2021, D-Rev sold 4,896 units globally. D-Rev targeted to treat 250,000 babies with units sold by 2019; while an India-specific number was not reported, by 2021, D-Rev's medical equipment successfully treated 1.17 million babies globally. Additionally, D-Rev targeted to avert 3,500 neonatal deaths by 2019 and reached 16,101 deaths averted in 2021. D-Rev has received follow-on funding from multiple donors, including the Gates Foundation and the Million Lives Club.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: D-Rev's success was enabled by multiple factors. These included responding to consumer feedback and needs and implementing smart and timely pivots. For example, adapting the marketing strategy and materials to the local target market's needs and purchasing power helped drive growth. D-Rev also responded to evidence about barriers to scale, namely, to meet additional target market segments from lower socio-economic classes with limited purchasing power. To address this, the equated monthly installments (EMI) model was introduced, where a small portion of the total amount was charged while placing the order, and the remaining amount was distributed into three equal monthly installments. This scheme helped push the sales, and about 30 percent of all equipment sold was bought on EMI.

As previously mentioned, D-Rev pivoted its hiring practices to target younger candidates with backgrounds in health, biotech, and rural education. D-Rev also established partnerships to intentionally build the capacity of their staff to work with target consumers. For example, they developed a partnership with ECHO to build requisite contextual capacity amongst the sales personnel who would deal with doctors and patients in rural areas.

Finally, in response to evidence that one of the greatest challenges faced by doctors was parents' and families' lack of awareness of jaundice and its treatment options, D-Rev launched a mass awareness and education program for these parents and families of newborn babies about jaundice, its risks, diagnosis, and treatment options. D-Rev quickly responded to evidence and pivoted to strengthen their operational model for scale and impact.

DIMAGI – SCALING COMM CARE TO DELIVER BETTER COMMUNITY HEALTH TO MILLIONS THROUGHOUT INDIA

TABLE 11: GRANT 6 PROFILE SUMMARY	
Award Name	Scaling CommCare to Deliver Better Community Health to Millions throughout India
Organization Name	Dimagi
Location	India
Timeframe	2012–2014
Grant Stage	2
Grant Type	Operations
Solution Type	Process
Grant amount	\$996,424
Main Findings	Key Partners; Evidence of Impact; Follow-on Funding

INNOVATION SUMMARY: Dimagi Inc. developed and disseminated a CommCare system for health care workers to aid decision making, online register, and mechanism to disseminate information services to healthcare clients.

DEVELOPMENT PROBLEM ADDRESSED: Through CommCare, Dimagi sought to address the underlying potential to improve health impact and last-mile delivery of counseling services through the Accredited Social Health Activist (ASHA) cadre of community health workers (CHWs). It specifically addresses the need for an accessible, scaled-up mHealth platform across India.

INNOVATION TARGET USERS: Dimagi’s platform was an innovative, cost-effective, scalable mobile health platform that targeted ASHAs and other CHWs with the end benefits reaching households enrolled in government health programs via efficient delivery and service monitoring.

INNOVATION MODEL: The platform worked as an aid for decision making, online registration, and a mechanism to disseminate information services. Specifically, it provided visit reminders to CHW’s client lists via SMS, client engagement through audio/video clips, quality of care through checklists, decision support, recorded voices delivery of info, and real-time monitoring of the CHWs’ activities. Overall, services were centralized in four areas: access to care, client engagement, quality of care, and data-driven management.

PURPOSE OF DIV FUNDING: Dimagi used the DIV funding to scale up the pilot CommCare service to deliver better community health services to millions across India.

SCALE JOURNEY: Dimagi leveraged demonstrated demand for its CommCare platform and evidence of impact to reach quick scale targets. Generated evidence indicated that clients of ASHAs with the CommCare platform were receiving more frequent, thorough, and engagement health counseling services. Within two years, Dimagi reached its target of 50 organizations using the CommCare platform.

The total cost of ownership was planned to be shared by governments, external donors, NGOs, and other partners. In addition to its partnerships with the Government of India (specifically, the Integrated Child

Development Services and Ministry of Women and Child Development), Dimagi's CommCare was able to secure additional funding from numerous other organizations, including \$100,000,000 from the Bill and Melinda Gates Foundation for the state of Bihar, CARE, BBC World Service Trust, and World Health Partners. Dimagi was also contracted to deploy CommCare to support a large-scale study in Uttar Pradesh with the Harvard School of Public Health.

PERFORMANCE: During the DIV funding period, CommCare performed well. Against a target of 50 organizations, CommCare was reached and was adopted by 58 organizations by the End Of Contract. By EOC, 3,100 ASHA workers were using the platform, nearly three times the target value of 1,040. As of 2021, CommCare is working in 80 countries, covering 2000 projects, and employed by millions of FLWs worldwide, along with separate M&E applications. India's Institute of Career and Skill Development (ICSD) large program ran on the CommCare platform until 2020. Partnering with the Government of India enabled Dimagi's CommCare to see rapid scale success during the DIV grant period.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Dimagi's CommCare success attributes several enabling factors and key pivots. Dimagi focused the service to adapt to the local context in which it was deployed. It built local teams with mostly Indian staff that spoke Hindi. Dimagi received a large grant (\$100 million) from the BMGF when the DIV funding ended, which enabled continued scaling of the platform. Additionally, Dimagi implemented several contextual designs and small tweaks, such as providing offline case management functionality for FLWs/data collection (SaaS) and developing a no-code platform, which helped with marketability, scale, and replication. User-centric product development was also a big factor in success. CommCare was built, keeping the needs of the end-users in mind after consulting with ASHAs and AWWs (FLWs) directly.

Key informants shared that the team hustled to grow the platform. For example, operating with a strong proof of concept, team members attended and networked extensively at international conferences, mHealth networking, and small room discussions to build long-lasting relationships.

To attract initial users, Dimagi provided organizations with ten free phones to pilot the platform, thereby de-risking the platform for partners. This was a strong enabler of uptake. While stakeholder management for scale was challenging, Dimagi was able to find champions within the Gol and political support, both of which were extremely important for scale. Dimagi owned the platform, but state governments adopted it, which contributed to Dimagi's CommCare reaching 600,000 ASHAs rapidly.

IDEAS42 – FINANCIAL HEURISTICS FOR MICROENTREPRENEURS: RULE OF THUMB TRAINING

TABLE 12: GRANT 7 PROFILE SUMMARY	
Award Name	Financial Heuristics for Microentrepreneurs: Rule of Thumb training
Organization Name	ideas42
Location	India
Timeframe	2014–2017
Grant Stage	2
Grant Type	Evaluation
Solution Type	Process
Grant amount	\$909,834
Main Findings	Lack of Key Partners; Lack of Model Iteration; Evidence of Impact

INNOVATION SUMMARY: Ideas42 designed, Financial Heuristics, a behaviorally designed financial management training, which simplified the training into easy-to-remember and easy-to-adopt rules of thumb and leveraged mobile technology to directly deliver the training to microentrepreneurs in a cost-effective, scalable manner bypassing the need for a physical classroom setting.

DEVELOPMENT PROBLEM ADDRESSED: The Financial Heuristics, or Rule of Thumb training, seeks to overcome the shortcomings of currently available traditional classroom-based financial literacy programs, which have demonstrated limited impact on microentrepreneurs’ financial behaviors and business performance. Increased knowledge alone does not always translate into improved decisions or behaviors, so the ideas42 project leverages behavioral science to develop a unique training module for microentrepreneurs.

INNOVATION TARGET USERS: The target users for the Financial Heuristics pilot are microentrepreneurs in India and the Philippines.

INNOVATION MODEL: The Financial Heuristics module was a behaviorally designed financial management training, which simplified the training into easy-to-remember and easy-to-adopt rules of thumb (hence, the “rule of thumb training”). The module leverages mobile technology to directly deliver the training to microentrepreneurs in a cost-effective, scalable manner bypassing the need for a physical classroom setting. The modules are customer-centric in terms of content and structure.

PURPOSE OF DIV FUNDING: ideas42 used the DIV funding to support the development of a scalable version of the mobile phone-based Financial Heuristics training product and test the effectiveness of scale-up training products on microentrepreneurs’ business practices and performance. Ideas42 conducted two RCTs in India and the Philippines, respectively.

SCALE JOURNEY: As the DIV funding specifically supported RCTs, there was no specific training product scale-up beyond what was necessary to implement the RCTs. The evidence generated during the DIV grant covered multiple outcome categories, including user engagement with training, business practices, business outcomes, and institutional outcomes, such as repeat borrowing. The RCTs also yielded

important cost metrics, finding that ideas42's India mobile-based training cost estimate was approximately one-third the cost of conducting an in-person training, as reported by its partner microfinance institution (MFI), Janalakshmi.

PERFORMANCE: During DIV funding, ideas42 generated evidence on the Financial Heuristics program, particularly on outcomes such as an average listenership rate of 59 percent in India and 83 percent in the Philippines. However, no impact was seen on users' sales and profits in the Philippines and India, and evidence indicated only moderately improved business practices, including having separate business and personal accounting and recording important customer information. These findings suggest that the training was not very effective in meeting outcomes. The Financial Heuristics training program did not scale after the DIV funding ended despite such evidence.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: While the core innovation remains scalable, it requires ideas42 to secure several key partners, expand types of funding sources, and implement key adaptations to deliver cost-effectively at scale. First, to deliver Financial Heuristics cost-effectively while accommodating local languages, ideas42 needs an information communication technology (ICT) investor partner to facilitate entry into the commercial market and distribution.

Internal institutional dynamics have hindered Financial Heuristics' ability to scale beyond an interesting pilot project. As an institution, ideas42 heavily relies on project-based grant funding from development partners. Qualitative feedback indicates that ideas42 views Financial Heuristics as a project and not a product. While the model has good feedback and evidence of impact in its training content and innovative aspects, ideas42 has failed to develop it as a commercial off-the-shelf product. The model is still considered not market ready.

Additionally, existing microfinance institutions (MFIs) who operated as major institutional stakeholders of Financial Heuristics find the training too expensive, even though they were very excited at its initial prospects and encouraged by initial user feedback.

Ideas42 is aware of the potential monetization of some of the back-end data at its disposal. For example, they could provide data supporting credit assessment for financial institutions, but they have not been able to agree and strategize towards a way forward. Ideas42 needs additional funding to continue pursuing options, but conversations with BMGF and Dell Foundation have yet to yield results.

Finally, the internal ideas42 team lacked the necessary core strengths on fin-tech and business scaling expertise. The grantees expressed that the burden to scale should not fall on projects and would require financial and technical support from funders to facilitate scale, underscoring the innovation team's perspectives on the Financial Heuristics product as a project for assessing and not a product for scaling.

ORB ENERGY – MAKING SOLAR ENERGY AFFORDABLE AND ACCESSIBLE THROUGH IN-HOUSE FINANCE

TABLE 13: GRANT 8 PROFILE SUMMARY	
Award Name	Making solar energy affordable and accessible thru in-house finance
Organization Name	Orb Energy
Location	India
Timeframe	2016–2019
Grant Stage	2
Grant Type	Operations
Solution Type	Service
Grant amount	\$1,500,000
Main Findings	Evidence of Impact; M&E; Model Iteration

INNOVATION SUMMARY: Orb Energy is a solar energy company that designs, manufactures, and installs solar systems for residential and commercial customers, particularly small and medium-sized enterprises (SMEs). Many SMEs were unable to afford the up-front costs of their solar systems and could not secure financing from other sources. Orb Energy developed an in-house financing mechanism to provide SMEs solar panel systems on credit and other financing options to reach larger market segments.

DEVELOPMENT PROBLEM ADDRESSED: Orb Energy is an energy company offering rooftop solar panels as a renewable energy source for commercial enterprises (small and medium enterprises – SMEs) and residential buildings alike. It has a unique reach to many rural and peri-urban customers through its network of 125 branches in India. Many SMEs require reliable and renewable energy sources to avoid costly business disruptions than diesel, which is expensive and unreliable. SMEs express interest in a solar panel system but do not want to incur the up-front costs of buying a system. Orb aims to address this issue by offering a three-to-five-year credit scheme that will enable SMEs to eventually own their own solar system.

INNOVATION TARGET USERS: SMEs in India interested in investing in rooftop solar panels.

INNOVATION MODEL: Orb Energy is a solar energy company that designs, manufactures, and installs solar systems for residential and commercial customers, particularly small and medium-sized enterprises. Orb found that many companies could not afford the up-front costs of their systems. However, partnerships with local banks and other financial institutions to facilitate consumer financing were unsuccessful due to their lending practices not aligning with Orb’s customer base.

PURPOSE OF DIV FUNDING: Orb Energy used the DIV funding to offer in-house financing to small- and medium-sized enterprises that wanted to invest in rooftop solar panels but were not candidates for traditional financing options.

SCALE JOURNEY: Orb was able to leverage DIV funding to secure an additional \$2.75 million in grants and commercial debt to fund Orb’s in-house financing option to provide rooftop solar panels to target clients of small- and medium-sized enterprises. During the DIV grant period, Orb Energy was able to

provide financing for and install 2.2 megawatts of rooftop solar panels on 15 SMEs, including educational institutions, hospitals, and factories. Orb found that customers were very sensitive to interest rates and would compare Orb's rates with those of banks, even though Orb's package did not require collateral, unlike banks. Orb eventually found success with interest rates of ten to 12 percent (compared to bank loans of 10 percent with collateral).

Orb used a three-year loan period to control their long-term risk but was exploring five-year loan periods so loan repayments would not exceed the electricity costs the solar panels were replacing.

PERFORMANCE: Since the DIV funding ended, Orb has been able to raise an additional \$15 million from the U.S. International Development Finance Corporation and the Netherlands Development Finance Company and finance an additional 8.4 megawatts of rooftop solar panels. Additionally, the Royal Dutch Shell New Energies business acquired a 20 percent stake in Orb Energy.

From 2021, Orb Energy will expand from 30 to 50 project sales managers to increase project pipeline and orders and expand the credit option into new markets in northern India. The anticipation is that the in-house credit mechanism will allow for a higher volume of sales and higher productivity with the same sales staff, allowing for even larger (15 megawatts) projects to be profitable even with new costs. Finally, they are also piloting a credit scheme for larger residential customers who buy solar panels either for backup or to feed into the grid to reduce the cost of their electricity.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Orb Energy learned that having an in-house financing operation works for providing solar energy to SMEs who need it. Key factors in doing so successfully are completing a good credit assessment, being flexible on terms when a client's standing allows for it, having a well-trained and extensive field sales force to build the pipeline and close sales, and having sufficient funds in place to meet demand.

PIXATEL SYSTEMS INC. – CLOUD BASED LEARNING PLATFORM

TABLE 14: GRANT 9 PROFILE SUMMARY	
Award Name	Cloud Based Learning Platform
Organization Name	Pixatel Systems Inc.
Location	India
Timeframe	2015–2019
Grant Stage	2
Grant Type	Evaluation and Operations
Solution Type	Process
Grant amount	\$1,500,000
Main Findings	Lack of Key Partners; Model Iteration; Lack of In-country Presence; Follow-on Funding

INNOVATION SUMMARY: Pixtatel developed a low-cost cloud-based learning platform and associated tablet-based learning application, Math Whiz, to improve primary school student learning outcomes and learning concentration periods. Pixatel distributes this platform via the app store and direct in-schools in India, although the latter operations have since been on a hiatus.

DEVELOPMENT PROBLEM ADDRESSED: While primary school completion is high in India (around 96 percent), most graduates lack basic learnings skills, such as basic subtraction (first-grade math). Previously attempted solutions have shown to be ineffective for improving learning outcomes and the quality of education for primary schools in India. The Cloud-based Learning Platform specifically targets this issue to improve primary school learning outcomes in math in India.

INNOVATION TARGET USERS: The direct target users of the Cloud-based Learning Platform are primary school teachers. The indirect, intended beneficiaries of the platform are primary school students whose learning outcomes will improve using the learning platform.

INNOVATION MODEL: Pixtatel developed a low-cost cloud-based learning platform and associated tablet-based learning application, Math Whiz, solving multiple implementation challenges. For example, the model allows students to learn at their own pace, offers modularized content, enables ready adaptation to different curricula, and uses data analytics to track and determine which applications on the platform are most effective for specific groups of students. This platform can improve the quality of education at a significantly lower cost (about \$3 per student per year) because the platform runs on inexpensive tablets, does not require large infrastructure investments, and does not require constant electricity or internet or teacher computer literacy.

PURPOSE OF DIV FUNDING: The Stage 2 DIV funding supported Pixatel to conduct an RCT of 1,463 students in six schools in Lucknow, India, to test its effectiveness against standard curricula and get feedback on at-scale deployment.

SCALE JOURNEY: Before the Stage 2 DIV Grant, Pixatel integrated the innovation with the Indian Central Board and Punjab State Board math curriculum. Pixatel also conducted a pilot program with 497 students

in Tarn Taran, India, that showed strong potential to improve basic skills attainment, particularly among girls and the lowest-performing, remedial students. During the DIV Stage 2 grant period, Pixatel was able to rigorously demonstrate that three months of exposure to math practice via their tablet-based system improved learning by the equivalent of about two extra weeks of instruction, compared to the status quo practice, with additional effects on more general skills such as fluid intelligence and listening comprehension. Pixatel's system was approximately half as expensive per student as other effective computer-assisted learning programs, but approximately 60 percent more expensive than other non-technology-based interventions for similar learning outcomes. Pixatel secured additional grant funding to continue testing scaling models for the Cloud-based Learning Platform, receiving a \$40,000 grant from the University of Pennsylvania and a \$72,000 grant from the Weiss Fund for Research in Development Economics.

By the end of the Stage 2 DIV funding, Pixatel pivoted to pursue the app store over in-school tablet distribution to scale the platform's growth. The in-school tablet distribution model had many challenges to scale, including infrastructure, distributing tablets and maintaining the costs of tablets, and significant high-touch support, which hindered the potential growth of the platform. Pixatel assessed both options and chose the app store as its primary path to scale as it was the least expensive path with the most potential, even though the content was not as tailored to the user and the platform would not be reaching the poorest of the poor. Pixatel continues to pursue options to identify a viable path to school via the in-school distribution model, potentially by partnering with local and state governments for uptake.

PERFORMANCE: Post DIV funding, Pixatel has experienced significant challenges in scaling the Cloud-based Learning Platform and great successes in securing new partners and leveraging new evidence for scale. From the Stage 2 DIV funded evaluation, the evaluation researchers produced evidence on advances in learning outcomes for primary school students and evidence on concentration and cognitive endurance of student learning using tablets in classrooms. This academic paper (currently under review at a journal) demonstrated the value of using tablets in classrooms specifically for poor students, who do not often have time to sit and concentrate on their schoolwork or learning materials. The paper shows that the tablets allowed all students, regardless of where they were in their learning, to sit quietly for a sustained period to concentrate on their learning. This is novel evidence in education, and the paper's findings have already generated interest from new donors to apply this at scale.

In addition to infrastructure and cost challenges with the in-school distribution model, Pixatel experienced significant on the ground operational challenges to scale, which further limited their ability to pursue this path. For example, their only in-country employee who was hired as the local scale manager was performing poorly, fired, and retaliated, creating serious operational, safety, and reputational damages to Pixatel among the target schools and communities. Such operational challenges also created a series of safety issues for the evaluation team and significantly disrupted the planned evaluation activities. Without an in-country team or presence, Pixatel was limited in its ability to respond and mitigate the damage, further justifying its pivot towards the app-based approach.

Beyond India, a key informant shared that Pixatel engaged in conversations with the Government of Nepal to distribute the platform to Nepali schools. However, it is unclear at what stage this engagement current exists and to how many schools the platform was available in 2021.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Pixatel experienced several lessons learned, which helped to enable their success in distributing the platform via the app store and learn from challenges

experienced to scale in schools in India. First, the Pixatel team is based in California (Silicon Valley) and does not have an in-country team or presence, which significantly hinders its ability to not only scale and distribute in schools, but to manage operational challenges as they arise. Additionally, while Pixatel secured partnerships with the Government of Nepal to scale the platform in Nepal, they did not target local or state governments in India with whom education is managed. Finally, Pixatel pivoted to successfully continue scaling the platform via the app store with key changes to the platform. This pivot shifted the target user away from the poorest of poor primary students to middle-income households across the globe.

PRATHAM EDUCATION FOUNDATION – USING LEARNING CAMPS TO IMPROVE BASIC LEARNING OUTCOMES

TABLE 15: GRANT 10 PROFILE SUMMARY	
Award Name	Using Learning Camps to Improve Basic Learning Outcomes
Organization Name	Pratham Education Foundation
Location	India
Timeframe	2013–2015
Grant Stage	2
Grant Type	Evaluation
Solution Type	Process
Grant amount	\$926,582
Main Findings	Evidence of Impact; Key Partners; M&E; Contextual Factor; Model Iteration

INNOVATION SUMMARY: As part of Pratham’s Teaching at the Right Level (TaRL) framework, Pratham developed and tested the Learning Camps model that gives primary school students intensive bursts of teaching and learning to improve learning outcomes in short periods.

DEVELOPMENT PROBLEM ADDRESSED: Pratham Education Foundation developed learning camps as a mechanism to address poor education outcomes and skills among primary school students in India. While India has a high primary school enrollment rate, almost half of primary school children cannot perform educational tasks at their appropriate grade level. For example, close to half of children in Grade five cannot read at a Grade two level.

INNOVATION TARGET USERS: Pratham’s target direct users of the learning camps are primary schools and parents and teachers of primary school children in India, and the indirect, intended beneficiaries are primary school children.

INNOVATION MODEL: Pratham Education Foundation seeks to improve basic learning outcomes by implementing learning camps, intensive bursts of teaching and learning that have emerged as a promising strategy to improve education outcomes. These camps demonstrate how learning outcomes can improve over a short time, showing parents and teachers that accelerating basic reading and math can be done without expending large amounts of resources. The learning camps are designed under Pratham’s Teaching at the Right Level (TaRL), a broader model focused on improving basic learning outcomes, grouping students by learning level rather than grade or age.

PURPOSE OF DIV FUNDING: Pratham used DIV funding to implement and test different models of the learning camps to optimize the model to improve student learning outcomes. The different models included varying camp duration, periodicity, cost, and follow-up.

SCALE JOURNEY: During the DIV grant, Pratham tested four intervention models for 17,649 students across 484 schools in two districts and four blocks in Uttar Pradesh. Schools either received 1) two 20-day camps with a ten-day booster camp at the end, 2) four ten-day camps plus a ten-day booster, 3) learning materials but no direct support by Pratham, or 4) were the control group and received no support

or materials. The ten-day and 20-day camps demonstrated large, statistically significant positive impacts on students' Hindi scores and math scores.

The strongest impacts were observed for oral Hindi followed by math and written Hindi, and the booster camps were found to improve reading skills at levels more than three times those found during the normal school year. The highest improvements in learning outcomes were demonstrated by students performing at low levels at baseline sampling.

PERFORMANCE: After the study, Pratham scaled its learning camp model to directly reach over 900,000 children in 21 states across India, and indirectly impacted 15.7 million students through state and local partnerships. As a result of TaRL's success in India the model was adopted and replicated by other organizations in more than ten countries in Africa. By 2020, the TaRL model has been adopted to reach millions of students in India, as well as replicated by partner organizations and governments in Africa, South Asia, and Latin American to improve learning outcomes for students grades three to five. There currently exist two forms of Pratham's model, one delivered by Pratham and one delivered by governments, and each model employs different aspects of the TaRL that fits the users' needs.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Pratham's TaRL model, including the learning camps as one application of the model, has experienced tremendous success and impact across the globe for improving students' learning outcomes. In India, Pratham's TaRL model was developed, tested, implemented, and managed by a locally based team with the right expertise and strong contextual knowledge to adapt the model to the specific needs of its target users. In addition, Pratham has a long-standing relationship with J-PAL and its founders, who have implemented a series of RCTs to test the impact and effectiveness of the TaRL rigorously and its iterations over twenty years.⁶ This strong evidence has been essential to informing key pivots to iterate the model as well as to secure partners to fuel scale to improve learning outcomes for students globally.

⁶ Banerji, R. and Chavan, M. 2020. A twenty-year partnership of practice and research: The Nobel laureates and Pratham in India. *World Development*, 127: 104788.

VIOLET HEALTH INC. – A CULTURALLY APPROPRIATE IRON-FORTIFIED BISCUIT IN INDIA

TABLE 16: GRANT II PROFILE SUMMARY	
Award Name	A culturally appropriate iron-fortified biscuit in India
Organization Name	Violet Health Inc.
Location	India
Timeframe	2014–2015
Grant Stage	I
Grant Type	Operations
Solution Type	Product
Grant amount	\$98,233
Main Findings	Lack of In-country Presence; Lack of Key Partners; Contextual Factors; Evidence of Impact

INNOVATION SUMMARY: Violet Health developed and market-tested an iron-fortified biscuit to replace iron supplements in pill form to reduce the incidence of anemia among pregnant and reproductive-age women.

DEVELOPMENT PROBLEM ADDRESSED: A significant number of women across the globe are anemic, primarily due to iron deficiency. Anemia is particularly damaging for pregnant women and children and contributes to higher mortality rates and morbidity. In India, an estimated 50 percent of pregnant women are anemic. Many organizations attempt to address this issue by developing iron supplements and targeting pregnant women for their consumption, but these supplements experience low uptake among target groups.

INNOVATION TARGET USERS: All women in India, specifically pregnant women.

INNOVATION MODEL: Violet Health aims to address the issue of anemia by developing and delivering iron via culturally appropriate, iron-fortified biscuits instead of supplements to improve uptake. As biscuits are commonly consumed in India, the iron-fortified biscuit requires no behavior change, unlike the folic-acid pill supplements. After extensive market research with pregnant women, researchers, and nutritionists in Bangalore, Violet Health developed several prototypes of these biscuits, specifically designed to the tastes and preferences of pregnant women in India.

PURPOSE OF DIV FUNDING: Violet Health used DIV funding to conduct an impact evaluation to assess changes in iron supplementation behavior among consumers of the iron-fortified biscuit and to run a market analysis to determine commercial demand for biscuits over supplements.

SCALE JOURNEY: Violet Health’s impact evaluation revealed a higher demand for and more consistent uptake of iron-fortified biscuits compared to folic acid pill supplements. The study concluded that women were 20 percent more likely to maintain complete adherence to an iron supplementation regimen over one week when supplementing their diets with iron-fortified biscuits, as compared to taking folic acid pills. The difference in adherence rates between women taking iron-fortified biscuits and those taking folic acid

pills increased to 30 percent when making the criteria more lenient to include all individuals that followed the supplementation regimen over a week except one day or less. The market analysis found that 43 percent of the surveyed sample stated that they would purchase the biscuits if they were available in markets. At the end of the trial period, 70 percent of the surveyed sample stated that they preferred enriched biscuits to folic acid pills.

The study also found that iron-fortified biscuits are more cost-effective than folic acid pills, given a lower cost per life saved (\$800) and lower cost per disability-adjusted life year (\$13). However, a benchmark was not provided as context for the dollar figures. Violet Health targeted the Gol as a scaling partner to disseminate the biofortified biscuits to women across India.

PERFORMANCE: After the Stage 1 DIV-funded pilot, Violet Health planned to scale up to Stage 2 to test the biscuit with a wider population and to test distribution models but did not receive Stage 2 funding and had to pivot their plan.

Concurrently with the DIV Stage 1 pilot, Violet Health conducted clinical studies with funding from the Grand Challenges Canada (GCC). These clinical studies took two to three years, during which the Gol was revamping their food regulatory system. This delayed the studies by a year; Violet Health finally got approval in 2017 from the Gol. They received follow-on funding from the GCC to scale and launch a marketing campaign and tried to partner with the Gol to conduct a pilot to no avail.

By 2020, Violet Health was in due diligence with a large pharmaceutical company to license the biscuits, but COVID-19 hit, which has since delayed the entire deal. They built a sales team with funds from GCC State 2 to visit doctors' offices in Karnataka state to advocate and sell the biscuits to share with their patients. This operation slowed down during COVID-19 and stopped altogether in February 2021.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: Violet Health faced several challenges during the next stage of scale-up, namely around securing the right partners with the Gol and experiencing delays associated with the transformation of India's food regulatory system and COVID-19. Key enablers for their ability to test and sell the biscuits until 2021 included a culturally appropriate biscuit design from close engagement with nutritionists and researchers from the University of Bangalore. They understand the Indian context and align their values and commitment in reaching millions of women to reduce anemia and its long-term effects on women and children. Additionally, Violet Health's manufacturer was extremely trustworthy and reliable, but small scale. Because the Violet Health biscuit has intellectual property, Violet Health experienced challenges in working with large biscuit manufacturers. They finally entered an agreement with a large pharmaceutical company to license the biscuit, but this deal has since been delayed due to COVID-19. They also experienced challenges related to COVID-19, corruption, and difficult public health regulatory bodies in each Indian state to pilot and test the biscuits across India, despite strong data for adherence and impact.

VISIONSPRING – SCALING BASE OF PYRAMID CARE HUB MODEL IN INDIA

TABLE 17: GRANT 12 PROFILE SUMMARY	
Award Name	Scaling Base of Pyramid (BOP) Care Hub Model in India
Organization Name	VisionSpring
Location	India
Timeframe	2012–2015
Grant Stage	2
Grant Type	Operations
Solution Type	Product
Grant amount	\$585,350
Main Findings	Model Iteration; Key Partners; Evidence of Impact; Follow-on Funding

INNOVATION SUMMARY: Building on lessons learned in Latin America, VisionSpring developed a spoke model to deliver low-cost eye health care and corrective tools (i.e., glasses) to BOP users who otherwise would not have access to such care. VisionSpring uses revenues generated from seller higher cost eye care products to higher-income market segments to reduce costs in delivering to BOP.

DEVELOPMENT PROBLEM ADDRESSED: For those with vision impairment, a pair of eyeglasses can mean the difference between opportunity and loss of income and quality of life. Globally, 564 million people could have their sight restored with a pair of eyeglasses. In India alone, the market for eyeglasses is projected at 300 million people. The poorest citizens, BOP in India, comprise the bulk of this market. However, their need remains largely unmet by sparse informal outfits offering limited and often inadequate services and formal eyeglass stores that cater to middle and upper-class customers. Over two years of the useful life of reading glasses, one pair will yield an estimated \$213 in increased earning potential. VisionSpring aims to address this issue by providing eye health and corrective services for BOP users.

INNOVATION TARGET USERS: Bottom of the pyramid users in need of eye health services and glasses to correct vision

INNOVATION MODEL: With over ten years of experience serving the BOP market, VisionSpring developed the BoPtical Care Hub model to deliver high-quality eye health services and glasses to BOP customers in a self-sustaining manner. VisionSpring planned to apply lessons from successful implementation of this model in El Salvador toward implementation in India.

BoPtical Care Hubs follow a cross-subsidization model to support the sale of glasses to their poorest customers (a target 70 percent of all customers) with revenue from higher-priced products sold to wealthier customers. VisionSpring and local entrepreneurs sell glasses through the BoPtical Care Hubs by providing critical rural and peri-urban educational outreach to create new markets. The model outlined that each BoPtical Care Hub would reach 12,000 individuals annually with comprehensive, high-quality, affordable eye care. VisionSpring would bring the cost of glasses delivery from \$18 per pair down to \$6.51.

PURPOSE OF DIV FUNDING: With \$585,350 in Stage 2 funding from Development Innovation Ventures, VisionSpring expected to open ten BoPtical Care Hubs that target the 145 million potential customers at the base of the pyramid.

SCALE JOURNEY: During the DIV grant period, VisionSpring met or exceeded its targets in delivering eye health services and glasses to users. It established 14 retail stores and sold 274,837 pairs of eyeglasses, which generated US\$837,811 in revenue. Although VisionSpring's initial goal was to fully cover their costs from retail profits, this goal ended up skewing their business towards higher-paying customers instead of BoP customers.

VisionSpring reduced the average unit price of a pair of glasses from \$18 to \$3 (the original goal was to reduce from \$18 to \$6.51 per unit) by introducing precut and symmetrical lenses, scaling their operations, and streamlining their inventory and distribution processes. They also learned that it was necessary to set aside an ongoing budget for promotion instead of relying on a one-time outreach campaign when a new store opened, to maintain demand and awareness. They found that providing vision care and eyeglasses to rural communities was not profitable enough to be self-sustaining, leading them to seek corporate, foundation, hospital, and government partnerships to cover the cost of outreach. In addition to DIV funding, VisionSpring also received additional funding from the Alcon Foundation and Bohemian Foundation, totaling \$500,000.

PERFORMANCE: To date, VisionSpring has distributed 6.8 million pairs of glasses in 43 countries. In India, in 2019, VisionSpring celebrated 1 million pairs of glasses sold. They projected three million pairs of glasses sold in 2020 if COVID-19 did not hit and disrupt the supply chain. They pivoted their model a bit to partner with hospitals and open pop-up shops or counters in partnering hospitals to provide eye care and sell their glasses. As of August 2021, VisionSpring was in 160 hospitals with the projection of 250 hospitals by the end of 2021. Hospitals represented 55 percent of their base. VisionSpring also partnered with district governments to screen children's eye health via the Kids Access Project. Prior to this pivot in 2018, they had screened 240,000 children. By the end of 2018, they screened 500,000 children and by 2019, they screened two million children in India.

LESSONS LEARNED / KEY DRIVERS OF SUCCESS: During the DIV grant period, VisionSpring learned from several challenges and quickly pivoted to respond. For example, VisionSpring found that securing hospitals and other partners with a shared vision to service the BOP clients was more challenging. Therefore, they implemented more extensive interview processes for partnerships to identify only those with a shared vision. They found that monitoring retail stores in rural areas was very challenging due to logistical issues in their monitoring staff reaching those stores and the supply chain. They shut down those stores, focused efforts on growing retail stores that they could efficiently monitor and shifted their retail strategy to conduct more thorough landscape and location analyses before selecting stores and outreach locations.