MEETING MARKET DEMAND
Establishing Product-Market Fit in LMICs
# Table of Contents

1. Executive Summary
2. Introduction
3. Program Context
4. Methods
5. Overview of Highlighted Organizations
6. The Challenge of Meeting Market Demand
7. Understanding Market Demand
8. Meeting Target Market Needs
9. Building Credibility with Users and Customers
10. Addressing Logistical Challenges
11. Key Takeaways
12. Conclusions
13. References

**DISCLAIMER:**
This product is made possible through the generous support of the Saving Lives at Birth partners: the United States Agency for International Development (USAID), the government of Norway, the Bill & Melinda Gates Foundation, Grand Challenges Canada, the UK government, and the Korea International Cooperation Agency (KOICA). It was prepared by Duke Global Health Innovation Center and VentureWell and does not necessarily reflect the views of the Saving Lives at Birth partners. This publication was reviewed by USAID.
Markets in low- and middle-income countries (LMICs) can be difficult to navigate. For a health innovation to be successful, it must provide not only problem-solution fit, but also product-market fit. We interviewed several global health innovation experts (LMIC-based implementation partners and individuals with expertise in coaching and mentoring innovators) and early- and mid-stage innovators to learn more about the challenges of meeting market demand, solutions and strategies for meeting demand, and implications for accelerator programs.

Four challenge areas were identified: understanding market demand, meeting target market needs, building credibility with users and customers, and addressing logistical challenges:

1. **Understanding market demand:** Innovators may lack a general understanding of market demand, particularly the difference between user and customer. Understanding the difference between these two stakeholder groups is essential to meeting the needs of each.

2. **Meeting target market needs:** Innovators may be out of touch with their target market, especially if they work out of country or in an academic institution. Innovators should always conduct market research before entering a new market and should iterate on their product or service according to stakeholder feedback.

3. **Building credibility:** Users and customers often demand a high standard of proof for health-related innovations. To build credibility, innovators should build their evidence base. They also may consider partnerships, administrative champions, or offering their innovation for free for a limited time to gather evidence.

4. **Addressing logistical challenges:** Innovators may encounter barriers related to purchasing and distribution due to resource constraints in developing countries. We offer several potential strategies for addressing these logistical challenges.

In each of these areas, we offer specific strategies for meeting these challenges and provide examples from three of our Accelerating Saving Lives at Birth (A-SL@B) innovators.

We hope that this brief provides guidance to innovators who are seeking to enter new markets and to accelerators looking to support innovators in meeting market demand.

**ACCELERATORS CAN SUPPORT INNOVATORS TO MEET DEMAND IN THEIR TARGET MARKETS BY:**

1. Providing mentorship and advice
2. Validating assumptions and hypotheses
3. Connecting innovators to experts, in-country partners, other innovators, and funders
4. Providing flexible timelines to allow for product or service iteration
In the field of global health innovation, market entry does not always follow a straightforward or traditional approach. Markets in low- and middle-income countries can be especially difficult to navigate, as many suffer what Matthias et al. refer to as a “a basic dysfunction: the lack of sufficient market incentive to stimulate production and distribution (Matthias et al.).” Although clear gaps in health system services or products may seem apparent to those with innovative minds, these gaps do not always translate into demand from a paying customer in the market setting. By effectively solving a real health problem, innovators can attain problem-solution fit; but to ensure market viability, they must also attain product-market fit. Users and customers must be aware of the health problem, desire a solution, and feel that the innovation offers an acceptable solution at a price-point they are willing and able to meet.

In this thematic brief, we aim to:

1) Describe the challenge that innovators face in meeting market demand and the root causes that lead to this challenge

2) Describe several strategies for meeting market demand using examples from 3 global health innovators

3) Discuss implications for accelerators in helping innovators meet market demand
PROGRAM CONTEXT

Program Offerings

Accelerating Saving Lives at Birth (ASL@B) is an accelerator program that seeks to increase the scale, sustainability, and effectiveness of promising innovations in the Saving Lives at Birth (SL@B) Portfolio—
with the overarching goal of improving maternal and newborn health (MNH) outcomes across the globe. A-SL@B innovators strive to first identify and fill gaps left by health systems; working to improve health outcomes that occur before and in the 48 hours after birth, the period when the majority of maternal and newborn deaths occur. The A-SL@B program seeks to help these innovations reach scale through ongoing, individualized coaching and mentoring provided by a team of experts in the innovation and global health spheres. All of the support activities for A-SL@B participants aim to help innovators make progress toward achieving scalability and sustainability. Direct innovator support includes:

• **Coaching** from program implementers and other experts in the field of MNH innovation;
• **Tools and resources** (i.e. tools that help identify target audience for communication and to develop commercialization plans);
• **In-person events**, including one annual workshop and one annual showcase; and
• **Virtual support activities** (i.e. webinars and peer community groups).

The Accelerating SL@B portfolio is comprised of innovations and innovator teams at varying stages of organizational and innovation development. Approximately half of the portfolio is relatively early stage innovators who are working on ideation and prototyping of innovations. A-SL@B grantee goals range from attaining proof-of-concept for their innovation to new market assessment. Many of the innovations stem from research or university institutions and have been created by innovator teams who have excellent technical knowledge of their innovations. These teams frequently need guidance on how to bring an innovation to market. Many innovators are also based within larger institutions, including hospital networks and global non-profits, who must work to prioritize progressing the innovation amidst a range of other organizational work. These innovators working for larger organizations are juxtaposed by those from small companies that are built around the innovation, and thus place greater emphasis on bringing the innovation to scale.

A-SL@B innovations target low-and-middle-income countries in various regions of Africa and Southeast Asia, but the majority of the portfolio is headquartered in North American and European countries. This misalignment means that innovators often require increased support in order to create a go-to-market strategy and overcome common barriers in market-entry.
Through their interactions with innovators, engagement managers noticed that meeting market demand was a common problem among innovators in the A-SL@B portfolio. Innovators struggled to understand how to make a product that was demand-driven, which resulted in a product-market misalignment. To better understand this problem, we conducted focus groups with experts in global health innovation which included LMIC-based implementation partners and individuals with expertise in coaching and mentoring innovators, to learn more about the particular challenges that innovators face in meeting market demand. From these focus groups, we developed interview guides to use in one-on-one semi-structured interviews with innovators and experts.

Seven early- to mid-stage innovators who were currently struggling to meet market demand, or who had recently overcome a market demand challenge were selected for interviews. These innovators were at various points in their market entry strategies, ranging from strategic planning and actively searching for in-country partnerships, to scaling to new geographies and contexts after a successful initial market launch. At this time, we also developed literature review questions to complete a review of both grey and white literature related to meeting market demand in a global health context.

Selected innovators and experts were interviewed in person during the A-SL@B Xcelerator Workshop held in May 2019. Innovators were asked about the barriers they have faced in entering new markets, and what resources they have used or are using to overcome those challenges and achieve market fit. Experts were asked about examples they had seen of innovators encountering this challenge, what they saw as the root cause of market-demand misalignment, and options that an innovator can pursue to ensure market-demand fit. Interviews were recorded and later transcribed. We used NVivo to code interviews and search for common themes and illustrative quotes related to meeting market demand.
OVERVIEW OF HIGHLIGHTED ORGANIZATIONS

The following innovator organizations faced and overcame significant challenges related to meeting market demand during the A-SL@B project period. To illustrate suggested strategies, we present specific examples of strategies that these innovators used to overcome those challenges.

CHAMAS FOR CHANGE

Chamas for Change (Chamas) works to promote positive behavioral change surrounding prenatal and infant health in Kenya. In East Africa, chamas are groups of women who come together to pool resources and support each other. Similarly, Chamas for Change provides community-based support to pregnant and breastfeeding women through microfinance loans and peer education groups led by community health workers (AMPATH 2017).

LUCKY IRON FISH

Lucky Iron Fish (LIF) is a Canadian social enterprise working to fight iron-deficiency anemia. Originally developed for the Cambodian market, its founders spent a significant amount of time in-country working with local NGOs and stakeholders looking for a solution that could address a high prevalence of iron-deficiency anemia. They ultimately developed a fish-shaped iron ingot that a user can place in a pot of boiling broth, soup, or curry, and which will release bioavailable iron into the food. LIF has since expanded to various markets including North America market and more recently India and Peru (Lucky Iron Fish 2019).

GRADIAN HEALTH SYSTEMS

Gradian is a health technology company organization that commercializes and sells the Universal Anesthesia Machine (UAM). The UAM is an internationally certified anesthesia machine which generates its own medical oxygen and can work without electricity, allowing hospitals in rural developing areas to deliver safe, reliable anesthesia to patients who would otherwise not have access (Gradian Health 2019).

THE CHALLENGE OF MEETING MARKET DEMAND

Why do innovators sometimes fail to meet market demand? First, innovators tend to work on problem-solution fit without proper consideration for market demand because they lack an overall understanding of market demand or are unfamiliar with the specific needs of their target markets. Second, global health innovators may struggle to gain user and customer buy-in as these stakeholders often demand a high standard of proof for health-related innovations. Finally, innovators may face logistical challenges such as customer inability to pay due to resource constraints, or issues with training and distribution due to underdeveloped and unreliable infrastructure. Below we present four areas of challenge facing global health innovators in meeting market demand and outline specific solutions and strategies that innovators may take to meet those challenges.
**UNDERSTANDING MARKET DEMAND**

**PROBLEM: MISUNDERSTANDING MARKET DEMAND**
Public health innovators often have extensive knowledge about existing health problems and the skillset to develop technical solutions but may lack business expertise or a thorough understanding of how markets work. Early stage innovators in particular may not be familiar with the concept of market demand, much less have the skill set to complete market analysis. Innovators may also incorrectly conflate user and customer, and as a result may overlook the needs of the market as a whole in favor of innovating to satisfy the needs of a particular stakeholder group.

**SOLUTION: KNOW THE DIFFERENCE BETWEEN USER AND CUSTOMER**
For an innovation to succeed in the market, the product or service on offer must meet the needs of users, the people who use the innovation either as a patient or in their work, as well as the customers, those who pay for the innovation. Often in LMICs user and customer are different as there may be limited ability among users to pay for an innovation. Solution demand (whether or not a stakeholder is aware of the health problem and finds value in solving it) may differ between user and customer, as will their needs in terms of features and cost. Health care providers (as users), for example, may be more interested in how a product improves patient health or creates ease in their work day, whereas hospital administrators (customers) may be more interested in how an innovation may help the hospital save on costs. Where the user and customer are different, innovators must be able to see each as a separate entity in order to grasp the overall market demand and successfully meet stakeholder groups’ needs.

**CHAMAS FOR CHANGE: Gaining user and customer buy-in**
Chamas for Change has pivoted over time to view the Kenyan county governments as their customers and pregnant or breastfeeding mothers as the users of their service. To ensure the development of a program that is valuable to users, they have conducted focus groups with women to learn about their wants and needs, and developed curricula around their feedback. It is very important," our interviewee says, “to know what the users want...because if I have a curriculum that doesn't address [anything] the users need then it will not be taken in.” Though they prioritize the needs of the women they serve, they also understand the importance of gaining support from the County Government: “in Kenya before you go into the community...you must include the leaders around. So we sold the idea to them and told them this is what we want to do. Did training with them first have them buy in the idea and give us what they think would work best because ...they're the ones who actually own them.” Chamas recognizes the County Government as their customer, despite the fact that they are not the end users of the service, as they decide whether to incorporate Chamas’ services into the community.
PROBLEM: LACK OF FAMILIARITY WITH TARGET MARKET

Many innovators are out of touch with their target market, especially if they are developing outside of the country where they intend to market the innovation. Lack of familiarity with target markets may be especially common among innovators working in academic institutions. Academics may be more interested in collecting evidence that an innovation works technically than in whether the innovation has market value. According to one of our experts, “when somebody does come from a technical or academic background...they get really fascinated by a specific technology or specific idea and then they innovate on that...without necessarily being...in touch with the market. When somebody ...who's already active in the market comes up with an idea [it] is oftentimes a little bit more based on their insights from either their own experience or from experience of others.” Innovators with on-the-ground practical experience may be more familiar with user and customer needs and local context than innovators working in research labs outside of the target country. Furthermore, academics are likely to have job responsibilities outside their developing or marketing their innovation, so they may have less time to conduct proper market research and analysis.

Late-stage innovators may also encounter product-market misalignment when moving into new markets and geographies. Innovators might make the mistake of assuming that just because a product works and is viable in one market, that it will be viable in another. Contextual factors, such as culture, policy, and infrastructure vary between geographies and all influence market demand. Without an in-depth knowledge of the new target market, innovators are likely to design products that do not meet market demand.

SOLUTION: CONDUCT MARKET RESEARCH

Before bringing innovations to new markets, innovators should first conduct market research with both users and customers. Market research can take the form of interviews, direct observation, or consultation with in-country partners who are familiar with the market landscape. Innovators should first and foremost seek to confirm solution demand; in other words, make sure that the innovation solves a problem that the target user is aware that they have, and that a target customer is willing to pay for. An innovative solution may technically solve a problem, but if the end user or customer does not find value in the proposed idea, the innovation will not succeed in the market, and the product will not reach its intended audience.

Once demand for a solution is confirmed, innovators should seek to understand the needs of both user and customer, which may include needs related to product design, features, accessibility, or cost. Innovators should also investigate the contextual factors of the target market, such as cultural considerations, health systems structures, political and regulatory context, and infrastructure. Finally, innovators should look for in-country partners that will be able to help advocate for and distribute their solution to the target market.

Where skills or time are lacking, innovators may choose to consult outside experts to help with market analysis. Accelerator programs can help by either providing consultation and guidance, or by connecting innovators with business experts and in-country partners.

LUCKY IRON FISH: Strategically Selecting New Markets

Lucky Iron Fish (LIF), when selecting a new target market, has been strategic in selecting a location where there is a large population, the government takes an interest in iron deficiency anemia, and where they can identify strong local partners. They are also careful to select a setting where there is enough purchasing power to make a price point viable for both a customer and for LIF. Using these criteria, LIF selected India as a strategic target market. India has both a high prevalence of iron deficiency and a strong government interest in addressing iron deficiency. LIF also has strong partnerships in India, including their India-based manufacturer.
SOLUTION: ITERATING TO MEET STAKEHOLDER NEEDS

Questions that linger from the market research phase, from cultural acceptability to customer willingness to pay, can be answered through an iterative design process in which users and customers are given a chance to offer feedback. One interviewee at Gradian spoke of the importance of failing fast: “if you think you have an idea, try the idea, get it out, you’ll figure out what’s wrong with it...It might not be the right thing and you know from there, but [a] fully formed idea is almost never the right way.” Innovators should begin by launching a Minimum Viable Product (MVP) for user testing. After receiving feedback, innovators should respond and pivot as many times as necessary until an acceptable and marketable product or service is created.

GRADIAN: Packaging product and service

- Over the years, Gradian has collected feedback from users about needs and barriers to use. Based on this feedback, they have continuously iterated on the design of the UAM, adding a ventilator and a monitor for vital signs. Gradian has also slowly pivoted their model to a service/product package.
- When a clinic or hospital purchases a UAM, clinical staff and technicians also receive training on how to use it. This training ensures higher uptake of the UAM product, helps create administrative champions to advocate for the UAM, and sets Gradian apart from competitors in the market. Through these pivots, Gradian has been better able to meet the needs of its users, has increased sustainability of the intervention, and improved their value proposition with customers.

LUCKY IRON FISH: Changing design to meet cultural needs

- Lucky Iron Fish’s original innovation was a puck-shaped product that people could put in their cooking pots. People were reluctant to use the puck as “it looks like garbage and no one wants to put garbage in their food.” LIF went through an iterative process to learn what design would work best in the local context, and eventually landed on the fish, a symbol of luck in Cambodia. The design change made people more willing to use the product as they already cooked regularly with fish. When entering the market in India, Lucky Iron Fish pivoted to a leaf-shaped design to meet user preferences in a largely vegetarian market.

CHAMAS FOR CHANGE: Failing Fast

- Chamas for Change went through two iterations of their service model before coming up with the current version. The first version involved using mobile phones to provide prenatal health education in rural Kenya, which the innovator realized was not feasible due to problems with data collection. They then pivoted to a model in which community health workers were tasked with recruiting pregnant women and mothers of infants into support groups. For one month, community health workers carried out the program, after which innovators completed an evaluation of implementation fidelity. At that point they learned that, due to a lack of monitoring, most of the women recruited for the groups were not pregnant, and therefore not in their target interest group. Chamas pivoted again to a model that included constant monitoring and evaluation. This second pivot led to increased demand for the service as users had a chance to request parenting training, which enhanced the innovator’s value proposition to both users and customers. By “failing fast” and pivoting, Chamas was ultimately able to develop a model that met user and customer needs and was therefore more highly demanded.
PROBLEM: A HIGH BURDEN OF PROOF

For health-related innovations, innovators may have to provide substantial evidence for their innovation before potential users will adopt the innovation and before customers are willing to pay. As one of our experts notes, “if you are dealing with government or if you’re dealing with devices...you might face a bit of what we call a burden of proof... you need to prove it works in specific areas and be effective enough...People will ask for something – people will say in which county have you implemented this solution? If you don’t have that cross-referencing, [you are] likely to face a bit of resistance.” The high burden of proof placed on health innovators can conflict with the typical innovation mindset of failing fast and pivoting. Innovators should work to build credibility for their innovation but should also be careful not to invest unnecessary time into an implausible solution.

STRATEGIES FOR BUILDING CREDIBILITY

Innovators should work to build an evidence base to show that the innovation works, and that it is safe, acceptable, and not burdensome in terms of cost, time, or complexity of use. One of our experts also advocates not only collecting data, but also documenting stories. Collecting stories from users and beneficiaries can allow decision-makers to hear the “voices behind the statistics,” which can encourage uptake. Another expert recommends introducing a product to the first target market for free as a potential strategy allowing the innovator to gather evidence that the innovation works at scale. After that, when moving to a new target market, the innovator might “face a little bit less of a hurdle,” as they have already shown that the innovation works in context. Innovators, with the help of their advisors, must determine whether this would be a financially viable strategy for their organization.

Another way that innovators can build credibility with stakeholders is by building partnerships with established institutions, which may be a lower lift for the innovator than the suggestions above. Gradian, for example, built their credibility in the early days of their innovation by participating in academic studies with Johns Hopkins University. Our experts also recommend joining a technical working group in the market location. Being a part of a technical working group can help build credibility, and allow innovators to meet key contacts, collect inside information, and influence stakeholders in the area to take-up the product or service.

GRADIAN: Using administrative champions to build credibility

Finding administrative champions is another way that innovators can build their credibility and increase uptake. Gradian has utilized administrative champions, influential members of the healthcare organizations they work with, to advocate for their innovation to other facilities and health care providers. By training providers in influential positions, they prepare those champions to recommend the UAM to other facilities and health care providers, answer questions about the product, and even train other health care providers on how to use it. Having someone who has used the machine and is capable of training others lends credibility to the innovation and to Gradian.
STRATEGIES FOR ADDRESSING LOGISTICAL CHALLENGES

Consulting with in-country experts during the market research phase should be the first step in identifying and addressing potential logistical challenges. Other strategies that our innovators used to overcome these challenges included using multiple distribution channels, developing partnerships with local distributors and other parties, packaging product with training services, and seeking government funding to establish sustainability.

LUCKY IRON FISH: Utilizing a flexible distribution model

- Lucky Iron Fish has developed a flexible distribution model that utilizes multiple distribution channels.
- Channel selection depends on the market and the customers’ respective purchasing power. In North America, they primarily sell through e-commerce, using Amazon and the Lucky Iron Fish website. They also sell through brick-and-mortar stores, but this tends to be a much slower sales channel. Finally, they do bulk sales through working with large non-profits to deliver immediate intervention. Lucky Iron Fish plans to use all three channels of distribution in the Indian market to help their innovation reach as many people as possible.

GRADIAN: Utilizing distribution partners and a flexible purchasing model

- Gradian has developed close partnerships with local distributors. Through incentive programs, trainings, iterating how they work with distributors, and giving flexibility, trust, and generous consignment terms they have been able to maintain very strong relationships with their distribution partners. Distributors have also been able to provide training and maintenance to clinicians, improving the value proposition to both users and customers and improving sustainability. Gradian places a high importance on finding the right distributors that align with Gradian in vision and mission and will not enter into a new market if they have not yet found the right distribution partner.

- While testing their product Gradian realized that although hospitals (users) needed the Universal Anesthesia Machine (UAM), they were unable to pay for them due to budgetary constraints. In response, Gradian established a flexible purchasing model to overcome cost barriers for customers. To ensure access to the UAM, Gradian works with donors and purchasers to establish workarounds when there is a lower ability for customers to pay. In some cases, donors cover sales; in some, they subsidize them; and in others, the government acts as the customer and procures the UAM for its hospitals. The flexible purchasing model has improved access and uptake among users, and also helps Gradian maintain a strong partnership with distributors by ensuring a steadier stream of revenue from selling the product.
Key Takeaways for Innovations

Based on their experience bringing innovations to market, our innovators and experts have offered the following advice to help innovators meet market demand. Innovators should always:

- Understand that user needs and customer needs will likely be different, and tailor the value proposition to meet the needs of all relevant stakeholder groups.
- Conduct market research. Confirm that there is solution demand, a viable price point, and in-country partners before entering a new market.
- Consult in-country experts who can offer insight on market demand and local context, help design solutions to counter barriers to entry and sustainability.
- “Fail fast” and iterate based on user and customer feedback.
- Build an evidence base, using both data and stories, to give credence to the effectiveness, safety, usability, and appropriateness of the innovation, and improve the value proposition for users and customers.

More specific strategies for meeting market demand will vary based on the health problem and market context. Innovators may consider the following strategies to help meet the needs of their stakeholders, build credibility, and address logistical challenges:

- Package the product with a service, such as training, to increase the value proposition and improve uptake.
- Offer the innovation in your first market for free, to build an evidence base that will improve uptake in future markets.
- Consider alternative purchasing and distribution models.
- Establish community partners. Local partnerships can provide insight on local context, lend credibility to the innovating organization, help overcome logistical barriers such as distribution, and link innovators to other useful partners.
- Join a technical working group in your market location to build credibility, meet key contacts, collect inside information, and influence stakeholders.
- Learn from other innovators. Joining an accelerator program can provide an opportunity to connect with peers and gather advice and feedback from those who may have recently faced similar challenges.
Implications for Accelerators

What role can accelerators play in fostering a market-driven approach? First, they can provide advice and mentoring. Mentors can guide innovators to make sure that they have clearly defined their target market, user, and customer; and help innovators consider important questions when conducting their market research. Mentors can also work with innovators to strategize on how to overcome challenges and may provide ideas such as packaging service with product or establishing a flexible distribution model.

Second, accelerators can validate assumptions and hypotheses. As an outside party, mentors have a different perspective than innovators, as well as different skill sets and expertise, and may be able to “look at the strategy...and be able to lovingly poke holes...or point out gaps or oversights.” This sort of feedback can be helpful to innovators to help them fill in gaps they may have missed, or to pivot and find a new path when necessary.

Third, accelerators should provide networking opportunities to innovators. They can connect innovators with experts in business who have the skills to conduct market analysis, as well as in-country partners who can provide insight on market context and help strategize on how to overcome barriers to product delivery. They can also connect innovators with each other and facilitate peer learning and discussion, and potentially provide the opportunity for collaborative partnerships between innovators. Finally, they may be able to identify potential sources of funding to improve sustainability.

In order for accelerators to be able to effectively support innovators, they should provide flexible timelines to allow for product iteration. One of our experts expressed concern about accelerator programs that give rigid timelines to complete a specific phase of development: “What happens when they go to user testing and it doesn't go well at the end [of] those three months and then they have to go back again and again [and] you're not there to support them. I think being realistic that innovators slide in and out of these spaces, they come in and out of ideation prototype, they come in and out of scale, they come in and out of sustainability” is important. The goal for accelerators in supporting innovators should not be about “checking a box at the end” of a specified time period, but about “gaining foundational knowledge” that innovators can replicate even after leaving the accelerator program.
CONCLUSIONS

To ensure product-market fit, innovators must understand and meet the needs of both user and customer. By conducting market research, consulting with partners and local experts, collecting feedback, and iterating on the initial innovation, innovators can create a product that is highly valued by stakeholders. Various strategies for helping to meet market demand are suggested, including building credibility among users and customers, packaging product with service, and developing flexible purchasing or distribution models.

REFERENCES


SAVING LIVES @ BIRTH
savinglivesatbirth.net
DUKE GLOBAL HEALTH INNOVATION CENTER
dukeghic.org