

SUMMARY REVIEW



Designing the next generation of sanitation businesses- Sep. 2014

Background

Hystra is a global consulting firm that works with business and social sector pioneers to design and implement hybrid strategies, i.e. innovative market-like approaches that are economically sustainable, scalable and eradicate social and environmental problems, and combine the insights and resources of for-profit and not-for-profit sectors.

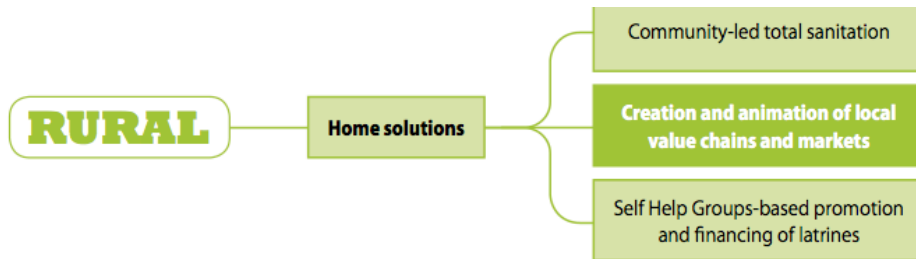
This report deals with both rural and urban sanitation markets, but for the purpose of relevance to the work of iDE, this literature review will focus on the rural sector. Page numbers to reference information are listed in parentheses ().

Key Points

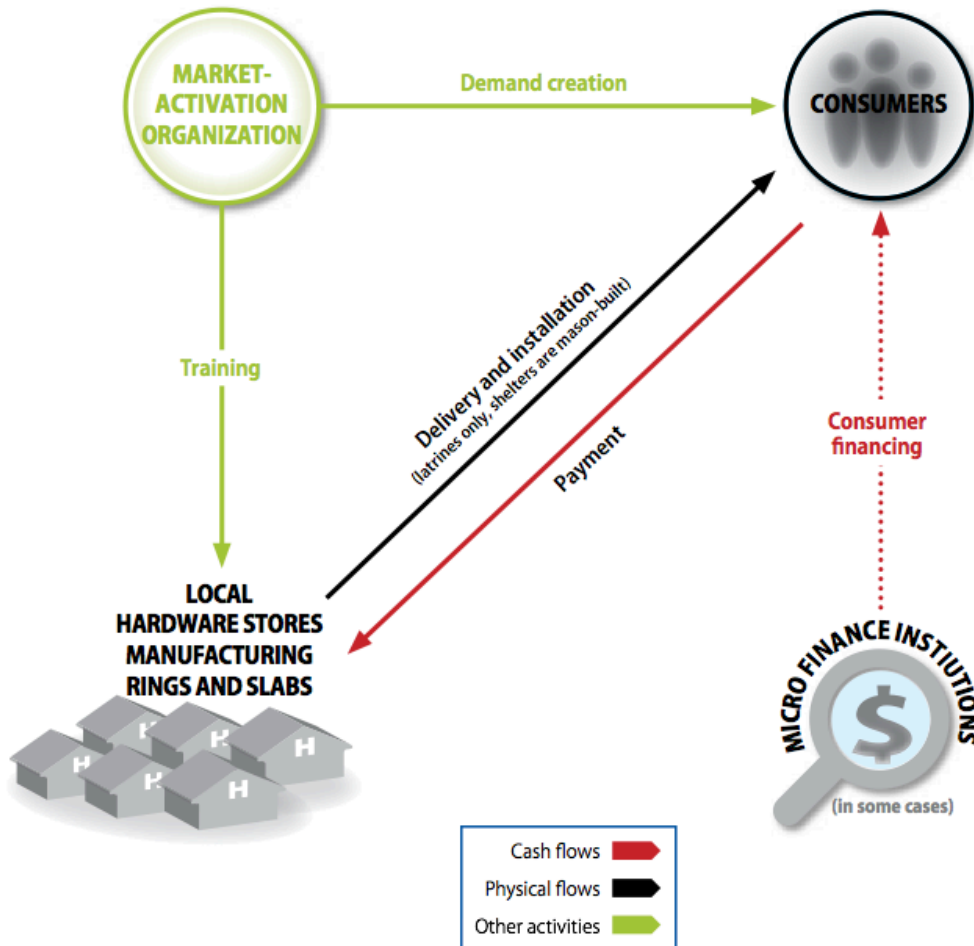
- To remain high, sales need to be constantly activated by hands-on sales and marketing activities. There seems to be no evident “tipping point” at which projects could exit the market without seeing a (sometimes significant) dip in demand for sanitation.
- Organizations need to find ways to make projects more self-sustaining if they want to scale up without an unrealistically large amount of grant support
- In market-activation work, there is a disproportionate emphasis placed on catering to hygienic needs rather than aspirational wants.
- In order to penetrate deeper into the BoP market, sales efforts must be optimized and there needs to be a greater value proposition to families through affordable and convenient means of service and product delivery.

Market-based models in rural sanitation

Overview of the main existing rural market-based model providing access to sanitation at the BoP



Market-activation programs



Source: Hystra analysis

Opportunities for rural sanitation

Considerable sales within a couple of years (pg. 14)

- Cambodia- WaterSHED (60,000 sales) & iDE (80,000 sales) over past 3-4 years at price point of \$30-50
 - Contributing an additional 5-15% sanitation coverage in their areas of operation
- IFC-WSP in Kenya is working with two regional plastic manufacturers to produce latrine slabs for a market of an estimated 2.3 million untapped households.

End-user financing (pg. 14)

- “Cash at hand” availability is often the main hurdle for households to actually invest in an improved latrine.
- Gramalaya case study
 - Uses combination of cash sales, microcredit through partner MFIs, and financing through self-help groups
 - Reaches over 50% coverage in most villages in which it operates
- When offered financing solutions, households are ready to stretch resources for the “best available option.”

Local hardware store partnerships (pg. 14)

- Most successful when there is a relatively dense network of hardware stores of a certain size that both produce and retail items.
- A number of projects managed to enroll between 200-300 hardware stores in just a couple of years.

Strategic Corporate Partnerships (pg. 23)

- Ready-to-assemble furniture companies, construction companies and low-cost home manufacturers could become strategic partners and bring their expertise to design DIY, flat-pack, light, centrally- manufactured, robust and good-looking shelters.
- Cooperate with fast moving consumer goods (FMCG) companies to ensure continuous supply.
- Use corporate partnerships for sharing of best practices.
- Collaborate with chemical and fragrance companies to help with malodor issues.

Challenges for rural sanitation

Exit strategy

- The assumption is that market-activation projects could disengage from areas where they work after hardware stores are active and promotion took place.
 - However there may not actually be a “tipping point” beyond which projects could exit without a significant drop in demand.
- Products that do not naturally top the list of priorities need to be constantly pushed to secure enough demand.
 - Local hardware stores are not willing or equipped to carry on promotion by themselves. They are small, local entrepreneurs who don't typically advertise.

Sustainable funding

- Value can be captured from services to offset organizational costs.
 - Attempt: SaniShop “franchise fee” charged \$2 to hardware stores for each latrine sold
 - Difficult to enforce- margins are already slim and suppliers struggle to see added value of project over time.
- Grant levels per latrine vary between \$10-\$40 (20% to 80% of the end user price)

Lack of end-user financing solutions (pg. 16)

- MFIs have relatively little reach in the areas where these projects operate.
 - India has one of highest rates of MFI coverage, but despite having 27 million active borrowers, that is less than 15% of all BoP households in the country.
- Sanitation loans are relatively low, and there are regulatory ceilings for consumer finance and sanitation products appear hard and expensive to sell.
- MFI partnerships are costly and difficult to maintain ---WaterSHED and iDE Cambodia pilots showed that MFIs required a higher percentage on product sales and relied heavily on the project team to enroll credit.

Difficulty in building and managing a larger network of hardware stores

- "Ideal" hardware stores are sometimes hard to find.
- Levels of professionalism and motivation may differ significantly between entrepreneurs.
- Shops may lose interest if sales aren't consistent.
 - Low retention of hardware stores (up to 30% of shops supported become inactive over time).

Waste management

- There is no financially sustainable business model that offers pit emptying services in rural areas. Most pit emptying is done manually through unhygienic methods. (pg. 36)
- Severity of waste collection issue depends on soil conditions.

Hystra's recommendations for effective sanitation marketing

- 1. Switch from “market activation” to a “social business” model by generating revenue out of the sale of products or services.**
- 2. Evolve relationship with local hardware stores from that of a “supported entrepreneur” to a “preferred supplier.”**
- 3. Facilitate household purchases with a savings program.**
- 4. Deploy a full-time dedicated sales force.**
- 5. Establish close coordination with local authorities.**
- 6. Use ICT to maximize program efficiency.**
- 7. Explore innovative waste management solutions.**

Recommendation #1: Switch from “market activation” to a “social business” model by generating high-margin revenue out of the sale of products or services. (pg. 18-19)

Organizations must capture more of the value they help generate in order to finance their own operations and growth. There is a low profit margin on slabs and rings, so businesses must explore other service and product alternatives to be sustainable.

Sell additional sanitation products with high margins that are in high demand

- Engage chemical and fragrance companies to design complementary products to avoid malodor issues.
- Sell shelters or sanitary equipment like hand-washing/bathing facilities.
 - A WaterSHED consumer survey shows that 80% of households want a concrete shelter over \$150 even if they have to wait to be able to afford it.
 - Expertise from pre-fabricated housing and construction material companies would be valuable in order to better design and lower costs of ready-made shelters and sanitary equipment.
 - WaterSHED attempted to sell a Zinc-based shelter at \$75. It met with limited demand because it was perceived to be less durable than concrete.
 - iDE Easy Shelter with GRET support is currently in development phase.
 - Shelters must:
 - Meet consumer expectations of materials and appearance.
 - Be offered in a range of options and prices to achieve maximum penetration.
 - Allow for efficient delivery and installation.
 - Margin:
 - Manufacturing costs around \$70-90
 - End product cost around \$130-150
 - Margin should be about 30% of end consumer price.

Selling services like home delivery and installation of products

- WaterSHED consumer survey shows that slow delivery was the primary source of dissatisfaction for 31% of consumers.
 - Suggestions:
 - 2-3 week delivery
 - Tight management of delivery and installation workforce
 - Cost efficient product design for transportation

Recommendation #2: Evolve relationship with local hardware stores from that of a “supported entrepreneur” to a “preferred supplier.” (pg. 19)

Given the extensive integration of business operations, it is essential for sanitation projects to develop an extremely close relationship with ring and slab manufacturers, who need to evolve into a network of dependable suppliers.

Recommendations for working with a “preferred supplier”

- Have stringent criteria for selection with appropriate contractual agreements.
- Possibly forego coverage in areas where no good or reliable slab and ring production businesses are available.
- Qualities of an ideal supplier:
 - Offers a diverse product line
 - Sufficiently large size and outreach (serves 10-15 villages or 3-4k households)
 - Possesses necessary resources to invest in new production equipment and upgrade its capacities
- WaterSHED business requirements:
 - Business needs to invest up to \$400 into molds.
 - Carries 30 sets in stock at any time (\$500 in inventory)
 - Owns a truck



Recommendation #3: Facilitate household purchases with a savings program. (pg. 19-20)

Addressing the lack of ‘cash at hand’ issue is a must to make these products more accessible and affordable. In areas where MFI partnerships are limited and restricting, and in-house financing is too challenging, an alternative is to offer consumers to pay over time allowing them to pay in smaller amounts, splitting the purchase of latrines, shelters and sanitary equipment into modules.

It is common practice among BoP households to make bigger purchases piece by piece.

With a modular payment system, customers can purchase only the components they need and want (e.g. families can buy a basic latrine or just upgrade their current facility by adding a shelter).

Example of a modular approach:

- Module 1 (three rings installed): \$30
- Module 2 (slab and wash basin installed): \$35
- Module 3 (shelter base and walls installed): \$40
- Module 4 (shelter roof and front wall structure installed): \$45
- Module 5 (shelter door and finish): \$50.

Case Study: Patrimonio Hoy



- Affordable housing program in Mexico by the cement manufacturer CEMEX.
- Enables urban households to build a room step by step with regular payments in exchange for progressive material delivery and technical support.
- Results in a total price that is about 60% lower than what families would pay otherwise.
- Enables families to build a room in just over a year. Previously households could take up to 4-5 years for similar construction.
- Since 2001, Patrimonio Hoy has served more than 380,000 families.

Recommendation #4: Deploy a full-time dedicated sales force. (pg. 20-21)

The active promotion and effective sales of products is central to the success of the whole endeavor. Without constant sales, suppliers will be less committed to deliver required quantity and quality on time, the project will struggle to cover its operational costs, and more importantly, the rate of penetration in villages will slow down.

Recommendations for developing and maintaining an effective sales force

- Hire sales representatives full-time.
 - This is proven to be more efficient than part-time models.
- Two effective strategies for sales of expensive items:
 - Trigger village-based referrals.
 - Locals may introduce clients in exchange for a small commission.
 - Hold village events to reinforce group dynamics and conduct product demonstrations.
- Compensation of sales and installation teams should not exceed 15% of total sales revenue.
 - There should be a fixed salary for expected slow seasons and the “take-off” phase of product marketing.
 - Commissions need to account for a large part of total revenue for incentivization of sales.

Case Study: Toyola

- Ghanaian company selling improved cook stoves.
- Relies on early adopters to promote products.
 - If these customers convince 10 people to buy a stove they receive a free one.
 - If they convince over 10 people to buy, they become “evangelists” who centralize orders in their village and take care of individual payment collection in exchange for a 5-10% commission.



Recommendation #5: Establish close coordination with local authorities. (pg. 21)

While the purpose of these recommendations is for commercial approaches, local authorities still have an important role to play in supporting project development.

Recommendations for working with local authorities

- Avoid operating in areas where latrines are subsidized.
- Subsidies are only possible if they are designed to ONLY target the very poorest (smart subsidies).
 - BRAC WASH- reached 80% penetration rates in 40,000 villages thanks to subsidies.
- It is possible to leverage promotion efforts by “piggybacking” government-led promotion campaigns.
 - IFC-World Bank WSP Selling Sanitation Program in Kenya is working with the Ministry of Health to launch an ambitious countrywide sanitation promotion campaign.

Recommendation #6: Use ICT to maximize program efficiency. (pg. 31)

ICT tools will be essential at full scale for sales and customer management (i.e. track potential and existing customers, monitor activities and performance of sales teams, establish customer profiles and penetration, manage cash collection, and gauge customer satisfaction).



Case study: Living Goods

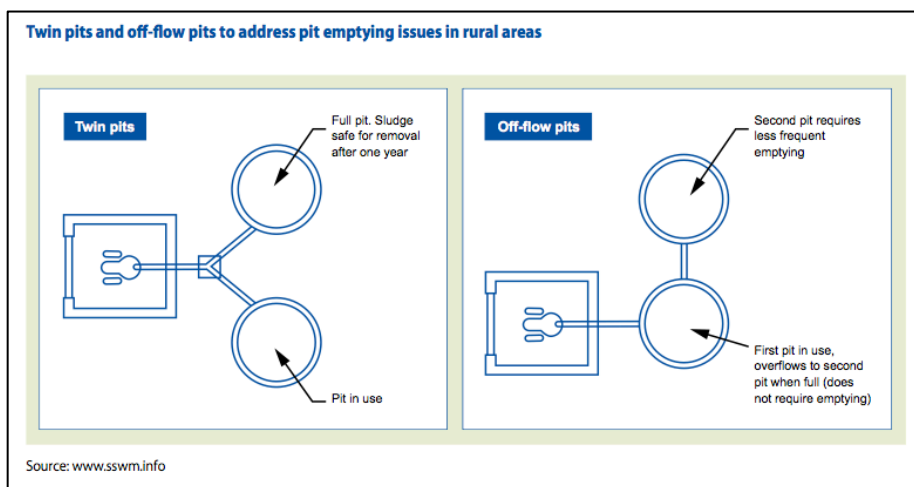
- Social business that uses saleswomen to sell health products door-to-door in Uganda.
- Uses simple mobile phones to manage business in real-time.
 - Manages product sales and inventory, sales force activity, marketing strategy, messages time-bound promotions, and supports customer relations.

Recommendation #7: Explore innovative waste management solutions. (pg. 35)

In rural areas, waste management can be a significant issue. The severity of the problem depends on soil conditions, which influence the rate at which a pit fills up (anywhere from 2-10 years) and the risk of water table contamination. There is no current financially sustainable business model that empties pits in rural areas, however there are technical workarounds that allow waste to compost, making removal a more hygienic and even productive process.

Waste management solutions

- Technical workarounds:
 - 6 ring opposed to 3 ring packages in areas where pits fill up quickly
 - Twin pit design
 - Twin pit sludge is **safe for removal after one year after being sealed.**
 - Off-flow pits options
 - Second pit requires less frequent emptying



Alternative options

- Productive waste- Tech that transforms waste into a productive product, like fertilizer.
 - Black soldier fly processing, Biodigesters, composting, centralized drying, struvite production
- Biotoilets- Systems that use breeding organisms to process waste with little outside intervention.
 - Bacterial bio-toilet, Tiger Toilet, Biofil Toilet

Currently, these technologies are not cost efficient enough to be affordable to the BoP. However, as technology continues to develop, they could be promising solutions to rural waste management issues.

Learning opportunities from the urban WASH space (pg. 30-31)

This Hytra report deals both with rural and urban sanitation strategies. For the purposes of staying relevant to the bulk of iDE's operations, this literature review has focused on the rural strategies. However, there are several important takeaways that can be drawn from the urban WASH sector.

Recommendations from urban WASH

- Cash collectors (in this space often used for waste removal service payments) can use their visits to generate additional revenue by selling hygiene products (soap, detergent, etc.).
- Offering community-level benefits can be an effective way to encourage areas to adopt a product or service and increase cost-effectiveness of business model.
 - Set a minimum penetration threshold before any toilets are installed.
 - Fundación Pro Vivienda Social gas connections
 - At least 70% of the community has to register before one is installed for the whole neighborhood.
 - Relies on neighborhood associations to convince potential customers to subscribe to the scheme by appointing “block promoters” to lead promotion efforts.
 - Potentially a viable option to make waste management more feasible in rural areas.
- Utilize alternative approaches to lower payment collection costs.
 - Mobile payment schemes
 - Piggyback on existing payment platforms and services.
 - (Utility bills or financial agents' networks)

Product of IDE WASH Knowledge Management Dept.

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