FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

Partnering for Innovation

Affordability & Financing Models for the Smallholder Market

A playbook for enabling smallholder farmer customer uptake of products and services

June 2015

USAID
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ABOUT FEED THE FUTURE PARTNERING FOR INNOVATION

Feed the Future Partnering for Innovation is a USAID program that helps the private sector to scale and market agricultural technologies for smallholder farmers through investing in technology commercialization and knowledge exchange. Partnering for Innovation is part of Feed the Future, the US Government's global hunger and food security initiative, active in 19 countries. Fintrac produced this playbook in cooperation with the Initiative for Smallholder Finance, Deloitte Consulting, and Dalberg Global Development Advisors.

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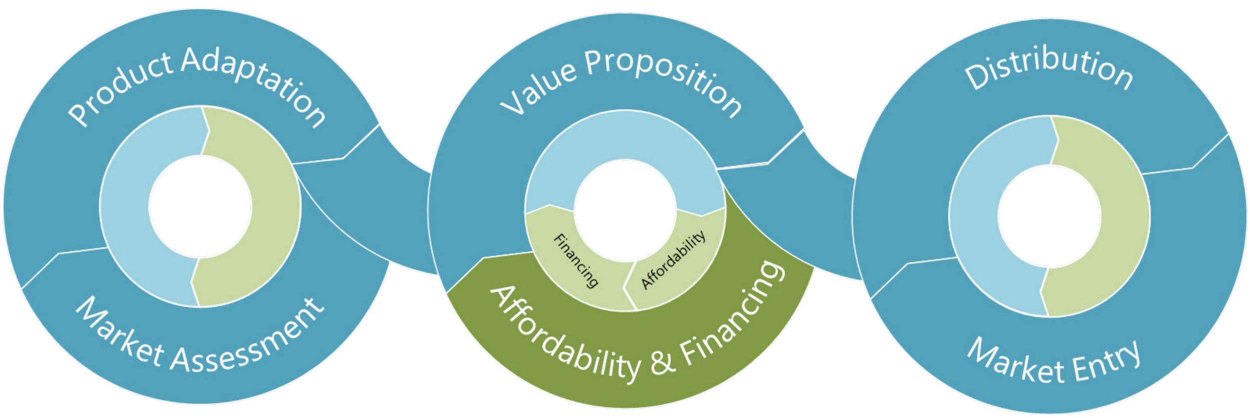
About this Playbook Series

As part of the commercialization process, Feed the Future Partnering for Innovation has developed a series of user guides designed to accelerate the commercialization and scaling of agricultural technologies. This series is designed to provide practical guidance in addressing the market entry and business development challenges that arise when introducing and selling new agricultural technologies into the smallholder market.

The playbooks provide both the theory and practice for successfully introducing new products to the base of the pyramid market. In the following chapters we will introduce concepts that will assist you to:

- Access difficult-to-find information on this marketplace that will help you understand the buying power of your targeted customers, identify where your customers are located, and determine the best partners and channels that you can use to most efficiently distribute your product.
- Educate your customer on your value proposition (the benefits of your product in relation to the cost), strategies to effectively demonstrate and promote your product and to sell it to community leaders and early adopters.
- Explore options for financing that you can offer to your customers to improve the upfront affordability of your product.
- Develop your business and financial strategy and work on your pitch so that you have the tools to adequately finance your growth.

Figure 1: Entering and Succeeding in the Smallholder Market



This graphic illustrates the distinct phases of the smallholder business plan development process and in each playbook, highlights the relevant phases covered within, addressing three fundamental critical success factors of smallholder business: adaptability, affordability, and accessibility. The graphic demonstrates the iterative nature of each of these elements in business plan development.

Contents

Introducing the Gap and the Strategies

A playbook for enabling smallholder farmer uptake of products and services

Affordability v. Financing

<u>Affordability</u>: decreasing the price of a good or service to enable use or ownership.

<u>Financing</u>: providing financial resources or an equivalent to acquire a good or the use of one.

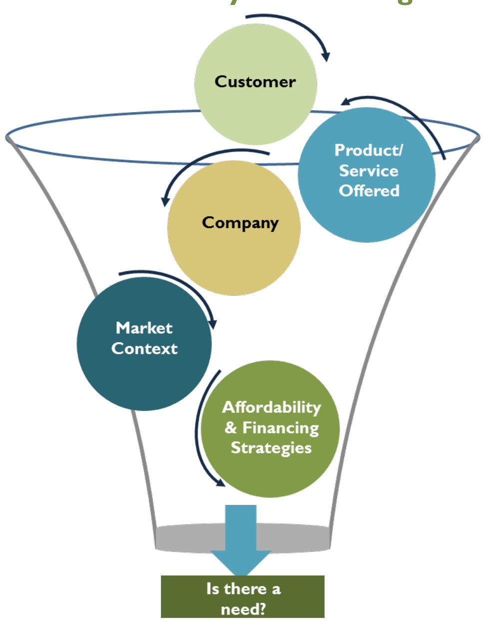
About this Playbook: Core Messages

While the estimated demand for financing by smallholder farmers globally is $450 billion, local bank lending meets less than 3 percent of this need.[1] Traditional commercial lenders often do not want to lend to smallholder farmers due to a number of factors, including low financial literacy, limited collateral, low perceived earning potential, and the perceived high degree of uncertainty and risk associated with agriculture. Lenders also do not understand the smallholder market well and most lack the infrastructure needed to effectively service this market. Given this financing gap, and the fact that most farmer income is used to meet basic needs, businesses serving smallholder farmers must rely on innovative methods to enable customers to purchase products and services. Without doing so, companies risk having a limited market for their products and services.

There are a number of promising affordability and financing strategies available for companies to offer customers outside of traditional commercial lending. In many cases, companies can couple these strategies with product and service delivery to offer a comprehensive solution that increases customer adoption.

This playbook will assist partners in understanding the variety and viability of the strategies available to help customers afford a product or service and will help them to decide which strategy is best and most achievable for their business models. It provides examples of success stories of each strategy and enablers that can be used to increase the likelihood of success.

Figure 2: Evaluating the Need for Affordability & Financing



The Need for Affordability and Financing

Data shows that smallholder farmers want financing options. According to the Monitor Group, 91 percent of farmer respondents said that "input access and funding" was their top concern and 55 percent said that "credit for input purchases" was their top desire.[2]

Beyond need, however, the decision to pursue product affordability and financing depends on a number of factors – in particular, an understanding of: 1) the customer, 2) the product or service being offered, 3) the company offering it, 4) the market context, and 5) the details of the strategies themselves.

If the price at which a company plans to sell its product or service is too high, creating a barrier to the customer, the company must offer its customers affordability or financing options that will facilitate product adoption. With information about the customer and the context, the company will be able to evaluate which affordability or financing choice is optimal.

1 "Local Bank Financing for Smallholder Farmers: A $9 Billion Drop in the Ocean." *The Initiative for Smallholder Finance.* 24 October 2013. Web.

2 "Market-Based Solutions to Poverty in Africa: Business Model Analysis: Smallholder Farmer Aggregators." *Monitor Inclusive Markets*. May 2010. P6.

When to Use the Strategies

Affordability refers to decreasing the cost of a product or service, whereas financing refers to providing assistance with purchasing the good or service by offering a choice of how to pay for it, usually reducing upfront costs. The approaches to implementing affordability and financing options differ, and in some cases more than one strategy can be used at the same time. Pairing these with the product or service makes it more accessible to the customer. Factors to consider include:

- What the product or service is and what it costs relative to the average income of the target customer.
- The company's cash flow and tolerance for risk.
- The current market penetration of the product or service.
- The availability of financing in the market.

This table can be helpful in determining which strategies to consider based on the product or service the company is offering in the smallholder market.

	Inputs Examples: seeds, pesticides, additives, fertilizers.	Tools & Light Equipment Examples: plows, bicycles, pumps, storage bags, testing kits, micro-irrigation systems.	Heavy Equipment Examples: on-farm processors (e.g., huller), irrigation systems, small silos, tractors.	Services Examples: crop prices, weather data, insurance.
Affordability	Bundling/Cross-Subsidization (p. 10) No Frills (p. 12)	Bundling/Cross-Subsidization (p. 10) No Frills (p. 12)	Pay-per-Use (p. 14)	Bundling/Cross-Subsidization (p. 10) No Frills (p. 12) Pay-per-Use (p. 14)
Financing	Consumer Financing (p. 17)	Consumer Financing (p. 17) Leasing (p. 21)	Consumer Financing (p. 17) Asset Financing (p. 19) Leasing (p. 21)	

Both affordability and financing strategies can be used to scale product uptake, increase company productivity, and generate new financing opportunities for the company. Regardless of the strategy, the greater the product uptake that results, the stronger the business case is for using it.

The Strategies at a Glance

While there are many ways to reduce the cost of a product or to provide financing to enable a customer to purchase a product that is too expensive to be purchased with cash, this playbook focuses on six widely-used strategies in smallholder affordability and financing.

Affordability

- **Bundling & Cross-Subsidization**: Bundling is a product delivery and marketing strategy through which several products are packaged, delivered, and marketed together for one price. Cross-subsidization uses higher margins on one good to allow charging lower prices for another. Both bundling and cross-subsidization increase product and service access by lowering the total price of one or all the goods and/or by increasing product utility and awareness.
- **No Frills**: No frills tailors products and services by paring them down to meet basic needs of lower income buyers while accommodating price sensitivity and maintaining functionality. Scaled back complexity enables companies to meet the needs of the consumer at ultra-low prices while still generating profits through high-volume sales.[3]
- **Pay-Per-Use:** Consumers pay for a single use of a service (e.g. a cell phone call) or of a productive asset (e.g. a tractor) that is owned and/or provided by the company or a third-party. Products or services can be metered, pre-paid, rented, etc. with the company managing equipment maintenance and the associated customer transactions.

Financing

- **Consumer Financing:** Consumer financing refers to a range of interest-generating lending options that enables products and services to be acquired without an upfront (or with a limited) cash requirement. This expanded access to credit is typically backed by some form of collateral and can be extended by a financial institution or non-traditional lender such as an agrodealer with a financing department.
- **Asset Financing:** Asset financing is a system whereby the asset being purchased and the future income streams expected from use of the asset are considered by the lender as collateral, eliminating traditional collateral requirements. The farmer is the legal owner of the asset while the loan is being repaid.
- **Leasing:** Leasing provides an asset to a customer for a limited period of time and under specific terms of use. The company maintains ownership of the asset, reclaims ownership of it at the end of the lease, and is therefore responsible for the proper use and maintenance of the asset while under lease, while the farmer borrows and pays rent on the asset.

Risk Sharing through Partnerships

Affordability and financing strategies do not have to be executed by a company alone. In fact, because the companies are often under pressure to fund their own operations and because financing may not be a core competency, they often bring on partners to facilitate financing and share risk, as illustrated below. In addition, many of these partners are well-positioned through existing relationships to identify farmers who are eligible for financing and to whom products and services can be sold, bringing the added advantage of a new potential customer base.

3 Karamchandarni, Ashish; M. Kubzansky; P. Frandano. "Emerging Markets, Emerging Models: Market-Based Solutions to the Challenges of Global Poverty." Monitor Group. March 2009. p6.

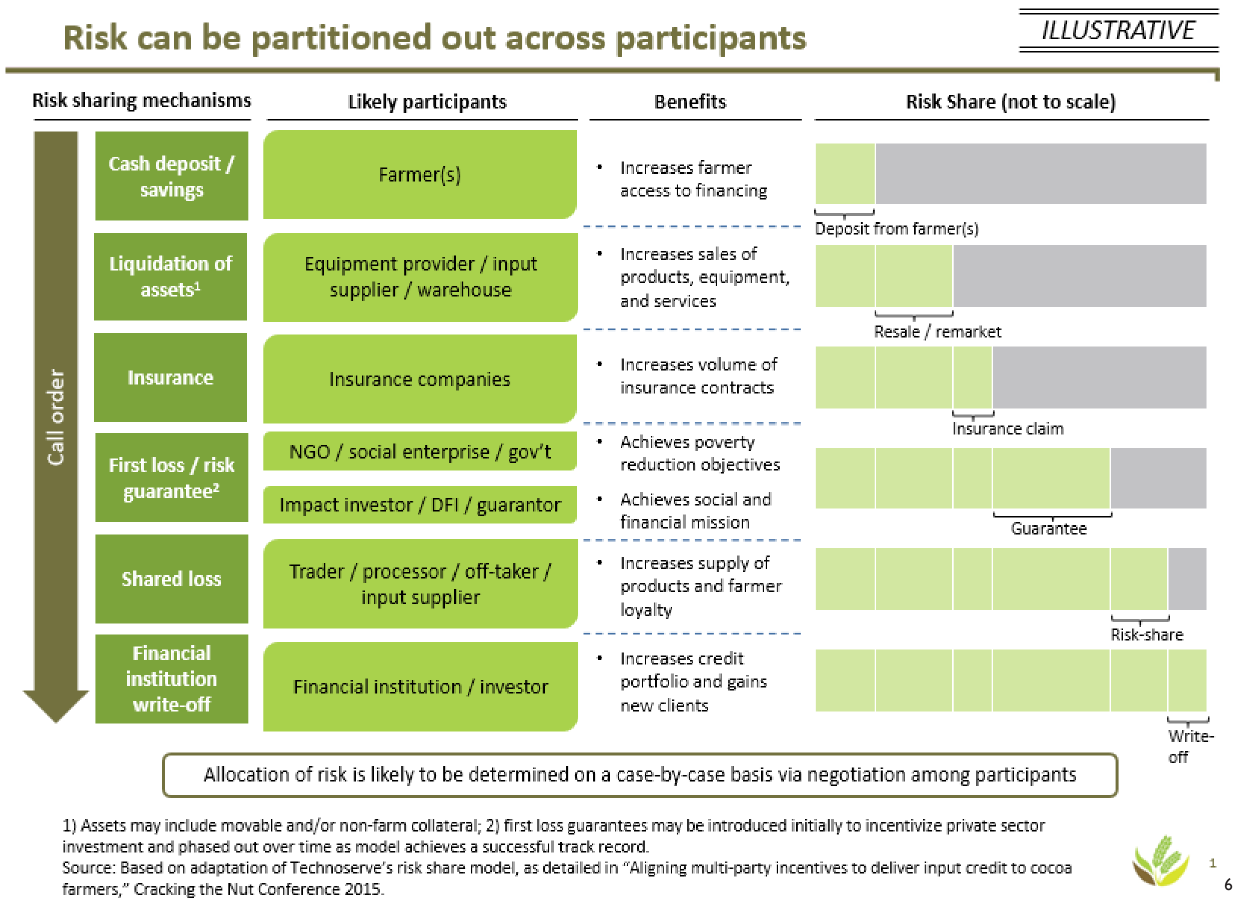
Institution	Motivation	Method
Bank	• Use lending expertise • Open new customer base for selling other products • Make profit on lending	• Debt: provide loans to smallholders, or line of credit to company to fund loans
Donor	• Accomplish development objectives	• Credit guarantee • Interest rate subsidies • Debt • Technical assistance • Grants
Non-governmental organization	• Accomplish development objectives	• Credit guarantee • Grants • Technical assistance
Domestic government	• Develop agriculture sector • Encourage smallholder farming • Contribute to domestic food security and nutrition • Assist private sector in gaining market foothold	• Interest rate subsidies • Technical assistance
Third party/ external commercial company	• Spread sales and distribution costs • Increase awareness • Share marketing costs • Use pre-proven sales/distribution channels	• Bundling • Shared channel distribution • Trade credits

If a company does decide to offer financing itself, it should verify that local regulations do not require it to register as a financial institution. Should local regulations or operational limitations prohibit direct financing, the company may need to pursue third-party alternatives. "Soft funding" (below-market capital or grants) may be needed in some financing models to initiate the model, address critical barriers, and scale up.[4]

4 "Emerging Markets, Emerging Models," p32.

This table, developed by the Initiative for Smallholder Finance[5] presents common participants and the roles and responsibilities they can take on to share the risk. If a company wants to decrease the amount of risk it is taking on itself when offering a product or service to the smallholder market, it can consider partnering with one or more of these entities based on the benefits each will bring. Moving down the table, as a participant's risk increases, the company's risk decreases.

Figure 3: The Initiative for Smallholder Finance's Perspective on Risk Sharing



5 Initiative for Smallholder Finance website: http://www.globaldevincubator.org/initiative-incubator/current-initiatives/initiative-for-smallholder-finance/#.

6 Developed by the Initiative for Smallholder Finance, internal documents

Enablers: Making the Models Work

In addition to sharing risk with partners, risk can be reduced by building factors into the business model that will increase the likelihood of success. The most common of these factors are included in the table below and range from leveraging existing sales and distribution platforms to developing alternatives that build smallholder farmer credit history.

Existing Sales Channels	Existing sales channels help companies reduce fixed costs, including marketing and distribution, which can lower prices and increase uptake. "Piggybacking products and services on existing customer supply chains [can] enable poor people to afford and gain access to socially beneficial goods.[7]" Because distribution arises repeatedly as an obstacle to scale, this can be overcome through: • Use of existing distribution platforms. • Increasing the sales force's responsibility to carry multiple products from a single hub deeper into the rural areas. • Properly incentivizing all participants in the distribution chain through sales commissions and other strategies.[8]
High Sales Volumes	High sales volumes compensate for small profit margins on each unit. Fixed prices of marketing and distribution are spread out over a large number of units, making each unit more affordable. High sales volumes can also help make the case for external financing by demonstrating that there is a market ready and willing to pay for the product or service.
Technical Assistance & Training[9]	Technical assistance and training is one of the most commonly used enablers in smallholder farmer affordability and financing because it can: • Improve product performance, thus encouraging repeat purchasing and increasing loan repayment. • Enable product and client performance monitoring. • Strengthen customer relationship management, reducing long-term marketing and customer acquisition costs. • Improve product maintenance so that the asset can be sold or leased again in case of repossession. • Expand the model farmer approach through which farmers train others in a way that creates trust, increases product loyalty and customer satisfaction, and expands product uptake. In addition to training on a particular product pre- and post-purchase, technical assistance can provide smallholders with improved: • Financial literacy. • Farm operations. • Agronomy practices. • Establishment of market linkages with other market actors such as off-takers. All of these can contribute to better farm management, margins, and record-keeping, improving a farmer's ability to pay and leading to an improved loan profile.

7 "Emerging Markets, Emerging Models," p6.
8 "Emerging Markets, Emerging Models," p64.
9 For more information on technical assistance, see "Technical Assistance for Smallholder Farmers: an Anatomy of the Market," The Initiative for Smallholder Finance. November 2014. http://www.globaldevincubator.org/wp-content/uploads/2014/11/Technical-Assistance-for-Smallholder-Farmers-An-Anatomy-of-the-Market.pdf.

Deep Customer Knowledge	Deep customer knowledge is necessary for understanding how to price the product, which directly affects whether the company should look at an affordability or financing strategy. It also enables the company to design loan terms that are serviceable by the smallholder customer. Customer knowledge informs where the customer will likely make purchasing decisions and therefore through which channel financing should be offered. In addition, the company should understand if and how a potential customer becomes a paying one and if the customer will be creditworthy. This understanding is fundamental to ascertaining if affordability or financing models will be viable.[10]
Value-Based Marketing	Value-based marketing ensures the potential customer is made aware of the direct and indirect benefits of the product prior to purchase. With risk-averse customers such as smallholders, this is important in encouraging customers to purchase products that may be on the edge of affordability. Value-based marketing is best communicated through lead farmers and demonstration plots, or trainings and demonstrations through agrodealers.
Sufficient Smallholder Aggregation	Smallholder aggregation refers to organizations of farmers that are in a similar location and farming the same crops. These groups are most productive when naturally formed and often exist in smallholder markets to share information and resources. Smallholder aggregation is beneficial because it: • Enables easier identification of individual customers. • Expands the customer base by selling multiple units simultaneously to many members, rather than reaching individuals separately. • Eases distribution of finance and payment collection, which can all be done at one aggregation point. • Can improve repayment through collective accountability mechanisms, increasing the availability of commercial financing. • Distributes risk sharing by using collective collateral for loan guarantees, increasing likelihood of commercial financing. • Allows the use of equipment by others in the group, should the first person default.
Accommoda-ting Terms	Accommodating loan and payment terms for smallholder farmer borrowers include: • Repayment cycles matching income and crop cycles. • Grace periods on inputs and productive assets to enable income to be generated after purchase. • Lower interest rates and longer repayment terms.
Credit History	In smallholder markets, credit history is often limited or unavailable. To overcome this challenge, smallholder financing strategies can rely on proxies that can be used to predict the credit worthiness of a potential customer, albeit imperfectly. This can be done through: • Agrodealers' receipt books showing repeat purchasing by customers and the value of these purchases. • Documentation from output aggregation points, such as warehouse receipts. • Top-up records from mobile phone companies, showing the income and payment cycles from other transactions. • Mobile money transaction records. • Savings records with local institutions or organizations. • Offtake contracts between producers and buyers.

10 For more information on market assessments, including developing customer profiles, see the Who and Where is Your Customer playbook. June 2015.

Strategies: Affordability

Affordability strategies lower the cost of a product or service to the end consumer and will typically increase access to a product or service. When evaluating affordability strategies, the company should consider the entire lifetime value of a customer, which is the customer's ability to generate revenue for the company in the long term as the customer's buying power increases.

Bundling is a product delivery and marketing strategy through which several products are packaged, delivered, and marketed together for one price. Cross-subsidization uses higher margins on one good to allow charging lower prices for another. Both bundling and cross-subsidization increase product and service access by lowering the total price of one or all of the goods and/or by increasing product utility and awareness.

Companies should use this if…

- Company has multiple products to offer the market or complementary products are available from another company.
- High portion of products' cost is marketing and/or distribution and there is the possibility for shared distribution.
- Products and services have low enough price points that a **smallholder would be able to pay cash to purchase.**
- The **combination** of products and/or services **enhances overall performance** (e.g. seeds and fertilizer, inputs and crop insurance).

Companies can increase success of the strategy by using…

Existing Sales Channels
Sales force is used to sell multiple goods, spreading and lowering operational costs, and increasing profitability of each good.

High Sales Volume
High volumes are needed to compensate for limited profit margins.

Technical Assistance & Training
Ensures proper use of products, increasing likelihood of increased income from use of goods, and encourages repeat purchasing or purchase of other products.

Example: ACRE[12]

Problem	Solution	Value Delivered
Crop failure due to unpredictable weather is the single largest threat to smallholder agriculture in Africa. Existing farmer insurance schemes in Africa are based on actual crop damage or loss, which require laborious and expensive claims processes that make crop insurance in the smallholder sector unprofitable.	ACRE, formerly known as Kilimo Salama in Kenya, offers affordable index-based crop insurance products for smallholder farmers in Kenya, Tanzania, and Rwanda. ACRE bundles insurance and agricultural inputs to make both more affordable for smallholders by sharing marketing and distribution costs. Farmers purchase inputs from agro-dealers and have the option to also buy insurance at a cost of 5% of the inputs' value. Agro-dealers partner with Safaricom's M-PESA mobile money service to transfer the insurance premiums to the insurance company. When a weather event like excessive rain or extreme drought is detected by nearby weather stations, it is assumed that crop damage has occurred and farmers receive a payout that is directly deposited into their M-PESA accounts.	• Insured customers have grown from 200 farmers in Kenya in 2009 to 200,000 across Kenya, Rwanda, and Tanzania in 2013. • Telecom partner Safaricom has generated a profit from the product through its transaction fees for M-PESA; UAP Insurance expects to generate a profit within the first few years. • Insured farmers have invested 19% more in better inputs and technologies and earned 16% more than neighboring uninsured peers. • Increased smallholder access to finance: 99% of ACRE customers have loans linked to insurance coverage resulting in 30,000+ Kenyan customers who were able to access $5.5 million in financing because they had insurance.[13]

12 Kilimo v—Index-based Agriculture Insurance: A Product Design Case Study. IFC Advisory Services.; AND IFC Case study. Kilimo Salama/Syngenta Foundation for Sustainable Agriculture - Kenya, Rwanda, Tanzania."

13 "Global Index Insurance Facility." April 2013 Newsletter. International Finance Corporation. Web. http://www.ifc.org/wps/wcm/connect/3fd932004f5ac5038deccf032730e94e/GIIF_Newsletter_Issue+5+pdf.pdf?MOD=AJPERES.

No Frills

INPUTS TOOLS, LIGHT EQUIP. SERVICES

No Frills tailors products and services by paring them down to meet basic needs of lower income buyers while accommodating price sensitivity and maintaining functionality. Scaled-back complexity enables companies to meet the needs of the consumer at ultra-low prices while still generating profits through high-volume sales.

Companies should use this if…

There is a **demonstrated market need** and the **product or service would create significant value** for a smallholder, but **alternatives are unavailable or too expensive.**

Product or service is sufficiently adaptable that it **can be modified without losing its main functionality and effectiveness.**

Productive goods or services like drip irrigation and micro-insurance can be adapted to be sufficiently affordable so that a **smallholder would be able to pay cash to purchase.**

Companies can increase success of the strategy by using…

High Sales Volumes
High volumes are needed to compensate for limited profit margins.

Value-Based Marketing
Value delivered to smallholder farmer (not only low cost) should be emphasized in marketing to avoid a perception of low quality.

Deep Customer Knowledge
Informs selection of an appropriate price point and minimum appropriate functionality for product or service design.

Example: Driptech

Problem	Solution	Value Delivered
Water is the main constraint to farming. Irrigation provides potential for year-round production but is expensive to install and complex to maintain. Given the gaps in market options, smallholder farmers rely mainly on rainwater, which can be unpredictable or absent, decreasing the efficiency of inputs and overall productivity. Because of the expense to purchase and apply, fertilizer use is absent or suboptimal.	Driptech markets small irrigation kits that combine ease of assembly and maintenance with affordability. Driptech economizes at every stage, from design through manufacturing and delivery, to make its products affordable by lowering the unit cost while maintaining high quality. Driptech's Instakit irrigation system reduces smallholder farmer installation time by 75%. When reengineering its product to create the Instakit, Driptech had a deep understanding of its target market: farmers with up to 5 acres of land, operating only slightly above subsistence, and with a recognized need and willingness to pay for technologies that increase output. The company used a high volume and low unit- and after-care cost model to make its drip irrigation kits affordable to smallholder farmers, while driving volumes through effective partnerships with local organizations providing distribution, marketing, and retailing support. The Instakit also enables fertigation—putting soluble fertilizer through the irrigation system for more effective and lower-cost application.	• The irrigation system is priced 50% lower than other commercially-available drip irrigation systems, enabling more smallholders to purchase them. • Smallholders using Driptech kits improved yields by an average of 50% and reduced labor costs related to watering and weeding by up to 80%. • In addition to economizing on water, reduced cost of fertilizer by applying through the drip system.

Pay-per-Use

HEAVY EQUIP. SERVICES

Consumers pay for a single use of a service (e.g. a cell phone call) or of a productive asset (e.g. a tractor) that is owned and/or provided by the company or a third party. Products or services can be metered, pre-paid, rented, etc., with the company managing equipment maintenance and the associated customer transactions.

Companies should use this if…

Limited use of a higher-priced asset or service is **sufficient and economical to derive value** and smallholders usually are **able to pay cash for a single use.**

Purchase of the asset outright or use of the service on a longer contractual basis **would be unaffordable.**

The need for the product is seasonal or infrequent and thus full ownership is unnecessary and would result in downtime for the asset or service.

Companies can increase success of the strategy by using…

Sufficient Smallholder Aggregation
Groups enable the asset to be fully utilized over many smallholders.

Accommodating Terms
Small payments and contracts for minimum uses or use over a period of time are determined based on the specific asset or service.

Technical Assistance & Training
Encourages product or service adoption, repeat purchases, and maximizes farmer productivity.

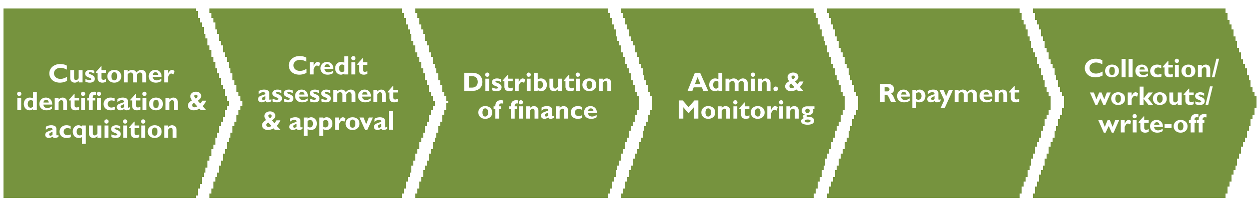
Example: Simpa Networks[14]

Problem	Solution	Value Delivered
One quarter of India's population, or 306 million people, does not have access to electricity. Because of this, Indian households must either purchase kerosene and generators, which are expensive and have adverse health consequences, or borrow electricity from a neighbor. Borrowing often leads to electricity theft, lost revenue for the power provider, and dangerous situations, such as overloaded transformers and electrocution.	Simpa Networks created a solar-powered unit and pay-to-own model that is affordable and easy to use. Customers make an initial small down payment and pre-pay via mobile phones for the kilowatt hours of electricity they can afford and plan to consume. Each payment goes toward owning the unit outright. When the pre-paid amount runs out, customers top up by making another payment. Simpa's pay-per-use model combines the flexibility of pay-as-you-go with the option for customers to eventually be owners of a solar home electricity system.	• Affordable electricity for consumers and progressive purchase pricing that leads to ownership in the long-term. • Mitigation of loss of revenue via Simpa's prepaid metering system. • Simplicity and reliability of mobile payment. • Renewable source of electricity in place of expensive, potentially dangerous, and illegal alternatives.

14 Simpa Networks: http://simpanetworks.com/.

Strategies: Financing

Financing strategies can facilitate access to larger and more expensive equipment. Given the reluctance of commercial lenders like banks or credit unions to provide financing to smallholder farmers, financing schemes are often guaranteed by concessionary lenders such as subsidized micro-finance institutions, donors, and impact investors. Usually the company provides a full buy-back guarantee or related collateral to entice lenders to finance purchases. Once the model is proven and the risk level is demonstrated, the company may be able to remove or reduce the guarantee with the bank, then assuming more of the risk. Successful financing strategies require effective functioning of all steps in the financial services value chain, from customer identification to collection.



Consumer Financing

Consumer financing refers to a range of interest-generating lending options that enables products and services to be acquired without an upfront (or with a limited) cash requirement. This expanded access to credit is typically backed by some form of collateral and can be extended by a financial institution or non-traditional lender such as an agro-dealer with a financing department.

Companies should use this if…

- **Company is offering goods and services** where lending is intended to boost sales, product uptake, and increased smallholder production and income.
- **When collateral is available** or when an **alternative to collateral is available** (e.g. customer relationships or credit history).
- **Information on customers is available** to asses credit worthiness and likelihood of loan repayment.

Companies can increase success of the strategy by using…

Accommodating Terms
Seasonal or periodic repayment, serviceable interest rates, and innovative collateral options.

Existing Sales Channels
Trusted client-facing agro-dealers increase uptake, especially when financing is paired with sales of a product or service.

Sufficient Smallholder Aggregation
Loan is made to an individual, but assets or future income of the group may be considered as collateral.

Credit History
Developed through aggregators (e.g., warehouse receipts), dealers (e.g., receipt books), and long-term relationships.

Example: DelCampo[15]

Problem	Solution	Value Delivered
DelCampo Soluciones Agricolas, an agricultural inputs and technical assistance company, realized that a lack of smallholder farmer access to credit was limiting the company's ability to sell basic irrigation and farming equipment, thus limiting the farmers' ability to scale production and improve quality. Nearly all the financing in Honduran agriculture is for large, sophisticated agricultural export and production companies.	DelCampo, in partnership with the Inter-American Development Bank (IDB), built a product financing model, under which IDB provided DelCampo funding to expand its loan portfolio and credit products. DelCampo refined its business model, including streamlining its lending processes and instituting a technical assistance program for smallholder farmers receiving loans. DelCampo's products are designed specifically for each client segment and include: • Traditional finance with 30-day terms and zero percent interest. • Agro Facil, a short-term credit line with an 18% interest rate without collateral. • Long-term loans for equipment and irrigation financing.[18]	• Grew portfolio from $500,000 and 90 loans in 2009 to nearly $8 million and servicing 2,400+ loans in 2013. • Grew annual sales of irrigation products from $300,000 in 2009 to nearly $1.8 million in 2013. • New financing model has given DelCampo a competitive advantage over other input suppliers that do not have smallholder financing facilities. • About half of all loans serve farmers with loan sizes under $1,000. • Financed the productivity of 1,700+ hectares of high-value crops since 2009, representing about 7% of total national production.

15 IDB investment report; DelCampo internal documents.
16 "Financing Agricultural Value Chains in Latin America." Inter-American Development Bank. April 2014.

Asset Financing

HEAVY EQUIP.

Asset financing is a system whereby the asset being purchased and the future income streams expected from use of the asset are considered by the lender as collateral, eliminating traditional collateral requirements. The farmer is the legal owner of the asset while the loan is being repaid.

Companies should use this if…

- **The use of assets increase income** (through increasing production or minimizing losses), but are too expensive to purchase without financing, and can be repossessed if necessary.
- **Assets can be shared** for a price, generating income to repay loan.
- A combination of smallholder and provider **maintenance can help ensure ongoing functionality** of the asset.
- **Mature financial services market is present,** with lenders that can provide financing using innovative collateral methods and incomplete or non-existent credit histories.

Companies can increase success of the strategy by using…

Technical Assistance and Training

Ensures proper product use, increasing likelihood of increased income and loan repayment. Opportunity to check in on farmer/borrower and maintain functionality of asset.

Sufficient Smallholder Aggregation

Reduces repayment risks by spreading liability over a larger number of farmers; increases purchases because asset can be shared.

Accommodating Terms

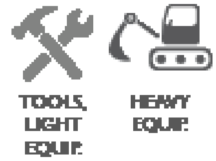
Customers pay as they have cash available; repayments are linked to harvest cycles; longer repayment schedules available for higher loan values; buy-backs offered by company or partners to decrease risk to lender.

Example: Juhudi Kilimo[17]

Problem	Solution	Value Delivered
80% of Kenyans are engaged in farming as their primary business, while 36% of rural Kenyans, nearly all of whom are farmers, have no access to any form of financial services. The inability of microenterprises and farmers to acquire productive assets is one of the major reasons farming entrepreneurs do not realize their full potential and do not grow their businesses to a stage at which they are attractive for financing. Small tractors, movable mills, cattle, generators, and irrigation kits are some of the assets that farmers could use to generate additional income, but often cannot afford them. Perceived and evident risks deter banks from serving this group and these risks have resulted in high and unserviceable interest rates.	Juhudi Kilimo provides asset-based financing so that smallholder farmers can purchase productive assets, such as dairy cows and machinery. These productive assets act as collateral for the loan. Farmers, 20% of whom live below the poverty line, can use the production from these assets, such as milk or higher crop output, to pay off their initial loans or to acquire additional income-generating assets. Juhudi Kilimo conducts farmer assessments, provides training, and structures payment schedules that fit farmers' cash flows. Typically, there are no upfront costs (e.g. down payments) required of customers and the asset they procure is used as collateral for the loan. In the case of default, the asset can be repossessed and resold to another customer.	• Smallholder farmers borrow an average of $400 per loan and maintain a repayment rate of about 95%. • Customer retention has grown quickly from 44% in 2010 to 85% in 2013, suggesting that farmers find real value in Juhudi Kilimo's financing products. • Smallholders have access to productive assets, increasing income.

17 Acumen investment report; "Juhudi Kilimo: Changing the way farmers do business." Presentation to investors. 2010. AND Nat Robinson Knowledge@Wharton interview, January 2013; Moody's Social Performance Assessment: Juhudi Kilimo, September 2013.

Leasing



Leasing provides an asset to a customer for a limited period of time and under specific terms of use. The company maintains ownership of the asset, reclaims ownership of it at the end of the lease, and is therefore responsible for the proper use and maintenance of the asset while under lease, while the farmer borrows and pays "rent" on the asset.

Companies should use this if…

- **Assets are income-generating**, usually equipment, **maintained by the owner** not by the farmer, and **can be repossessed** if necessary.
- Asset is **too expensive to purchase** outright or only needed for a short period of time. **Down payments and collateral are often not required.**
- **Mature financial services market is present** with lenders that can provide leasing terms using incomplete or non-existent credit histories or are willing to provide working capital loans to companies that are providing leasing internally.

Companies can increase success of the strategy by using…

Technical Assistance and Training
Ensures proper product use, increasing likelihood of increased income and loan repayment. Opportunity to check in on farmer/borrower and maintain functionality of asset.

Deep Customer Knowledge
Enables selection of most viable farmers with crop types relevant to the asset to ensure increased productivity and sales to generate income.

Accommodating Terms
Customers pay as they have cash available and payment terms are linked to harvest cycles.

Example: Development Finance Company Uganda[18]

Problem	Solution	Value Delivered
Securing commercial loans can be challenging for smallholder famers and small enterprises due to insufficient credit history, an inability to provide collateral for loans, and the fundamental risk aversion of commercial lending institutions that restricts them from serving rural clients. However, the ability to use productive equipment can have measurable impacts on farmer productivity.	Development Finance Company Uganda (DFCU) specializes in leases to small- and medium-size enterprises to purchase agricultural machinery, particularly tractors, milking equipment, harvesters, and agro-processing equipment. As of 2012, approximately 20% of the bank's agricultural credit was dedicated to its leasing operations and it was one of the largest commercial lease providers in Uganda.[21] The bank provides up to 80% financing of the total asset, and has a lending period of up to five years, while the borrower is required to provide at least 20% of the asset's total value as a down payment. Leasing enables smallholder farmers and enterprises to access productive assets while building credit history. Accessibility, interest rates, flexible lease terms for new and used assets, and lease processing times improve customers' abilities to access productive assets.	• Attractive leasing periods of up to five years. • Wide geographical coverage with 45 branches specializing in agricultural assets. • Assets are sold to a third party at the end of lease term and the client has the option of ownership. • Provides an insurance facility as part of the lease agreement.

18 Sources: DFCU website: https://www.dfcugroup.com/dfcu-leasing.

19 "Innovative Agricultural SME Finance Models." International Finance Corporation and Global Partnership for Financial Inclusion. November 2012. AND https://www.dfcugroup.com/.

Conclusion

Smallholder farmers offer a large and mostly untapped market for companies and financial institutions. Companies face challenges with setting appropriate pricing and financial institutions have often struggled with overcoming the real or perceived risks involved. In solving this challenge, one size does not fit all. Affordability and financing strategies need to be effectively tailored to each specific market opportunity, company, or product. This tailoring involves:

- Identifying key risks and success factors that can mitigate the risks.
- Establishing partnerships that can expand the customer base, lower transaction costs, increase product uptake, and share risks.
- Providing technical assistance to ensure successful technology adoption, especially for early adopters.

Specific to financing and partnerships with financial institutions, much of the responsibility for the success falls to the company itself. Financial institutions require:

- Elements of business model maturity; specifically, proof of or the potential for income generation and scale.
- The ability to find reasonable strategies to address the lack of collateral and/or credit history for customers.
- Assurances that the product or service will be able to reach scale and that the company will produce the cash flows to serve this increased demand.

It is also important for companies to involve financial institutions early on to jointly develop financing solutions, including incorporating enablers to reduce risk and maximize success. If financing is anticipated, companies should engage these financial institutions in planning the business model, rather than only inserting them into the strategy as a last resort.