

New Product Development for Microfinance:

Design, Testing, and Launch

Technical Note Number 2



Widening the circle, moving ahead

MICROENTERPRISE BEST PRACTICES

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New Product Development for Microfinance: Design, Testing, and Launch

by

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PREFACE

This technical note, the second of two on new product development,¹ describes the process microfinance institutions (MFIs) must undertake to expand their product lines. The note picks up after the MFI has evaluated the feasibility of introducing a new product and is ready to proceed with the development process, which includes design, testing, and product launch. Specifically, this note illustrates how MFIs:

- Gather the institutional resources and commitment necessary to successfully design, test, and launch the product;
- Undertake preliminary market research to segment the market and solicit focused feedback from target customers;
- Design a product prototype, to be used in the pilot test;
- Conduct a pilot test, to refine the prototype and determine if launching the new product makes sense;
- Develop a marketing strategy and internal systems to successfully launch the new product and manage its on-going refinement; and
- Understand the factors contributing to successful product development.

The companion technical note, “New Product Development for Microfinance: Evaluation and Preparation,” is an important prerequisite, helping MFIs to decide whether or not developing a new product is an appropriate strategy. It describes the factors that an MFI’s management should consider in determining whether new product development is suitable for the institution’s particular stage of growth and the market realities it faces.

Both technical notes focus on the process of new product development, irrespective of the actual features of the products developed. Accordingly, both technical notes—like the entire product development process—are part of a continuum. The goal of the notes, and the key to success, is to have the MFI institutionalize a continual process of product refinement based on market forces. Becoming more attuned and responsive to client needs is a critical part of an MFI’s methodological evolution, financial viability, institutional soundness, and social impact.

These product development technical notes tackle an issue confronting practitioners in the microfinance field by providing ideas and strategies for expanding the reach of microenterprises in an efficient and effective manner. Currently, models of systematic or

¹ New product development includes the introduction of new financial services (such as savings or insurance), new product features (such as loan terms, amortization schedules, and interest rates), and tangible products (such as smart cards).

methodical approaches to develop new products among MFIs are limited. As a result, these technical notes are based heavily on conventional business approaches to conducting market research, designing and marketing products, training staff, and projecting profitability. Nonetheless, the research undertaken in creating these technical notes drew on the experience of a full spectrum of financial institutions, large and small, pursuing a mixture of financial and social goals, to inform best practices for microfinance institutions. Among those surveyed were conventional banks in the United States and Latin America, “hybrid” (community development) financial institutions (CDFIs),² and mature MFIs; this mix helps give a better picture of the constraints posed by different organizational forms.

This technical note, like the new products it helps to develop, should be viewed as a work in progress. It will be “tested” by MFIs currently considering launching new products to determine its applicability and accuracy in guiding the process of product development. The process outlined in the technical note will be distilled into a “how to” manual (forthcoming) based on these field tests.

² CDFIs are U.S. financial organizations that provide access to capital in underserved areas to promote economic development. They have both financial and social goals.

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LIST OF ABBREVIATIONS/ACRONYMS

ADEMI	Association for the Development of Microenterprises, Inc. (Asociación para Desarrollo de Microempresas)
BRAC	Bangladesh Rural Advancement Committee
BRI	Bank Rakyat Indonesia
CDFI	Community Development Financial Institution
DAI	Development Alternatives, Inc.
FINCA	Foundation for International Community Assistance
IRR	Internal Rate of Return
MFI	Microfinance Institution
MIS	Management Information System
NPV	Net Present Value
SEWA	Self-Employed Women's Association
USAID	United States Agency for International Development

CHAPTER ONE PRODUCT AS PROCESS

Invention is 1 percent inspiration and 99 percent perspiration. Albert Einstein.

This straightforward quote suggests the importance of taking a methodical, measured, and persistent approach to new product development. Success is wrapped up in thoughtful collaboration, customer input, deliberate testing, and objective analysis, rather than just pure innovation. The process of development, as much as the features of the product itself, ultimately determines success. Therefore, this technical note illustrates a traditional approach to new product development for microfinance institutions—an approach that is deliberate and systematic—to decide whether the product should be commercialized or tabled.

Traditional new product development involves:

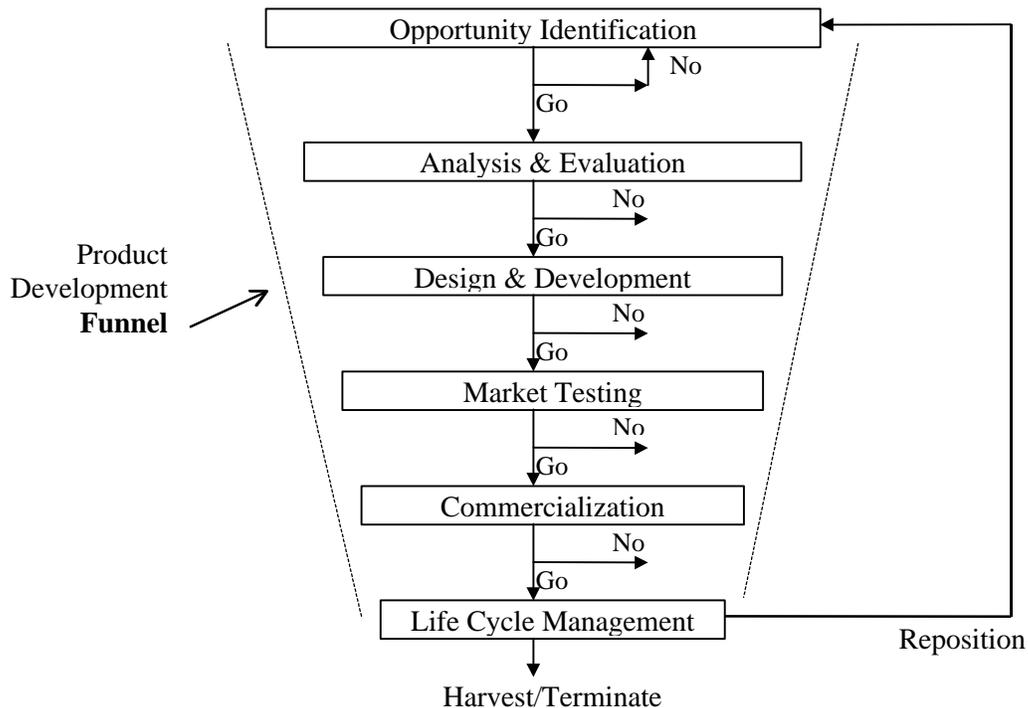
- A dynamic process of client-based product refinement;
- A systematic approach through defined phases including design, testing, launch, and commercialization.

This graduated approach, which breaks down product development into discrete phases, is depicted in Figure 1.¹ The product development process is designed as a funnel into which an institution enters, starting broadly with a range of potential product opportunities and successively narrowing the new product choices as project feasibility is researched and analyzed through the various stages of development. The first two phases of the process—Opportunity Identification and Analysis and Evaluation—are covered in the companion technical note, “New Product Development for Microfinance: Evaluation and Preparation,” which discusses how new product ideas are generated and evaluated. The evaluation and preparation technical note also examines the capacity of a microfinance institution (MFI) to undertake the development and implementation of new products and to determine if this strategy is appropriate for its stage of growth and the market realities it faces.

This technical note describes the design, testing, and launch of the product. Each phase of the product development process marks an increasing commitment by the institution to eventual commercialization, and the MFI must be prepared for the increased demands an expanded product line will place on an organization. Assuming the MFI does have sufficient capacity to develop and implement new products, this technical note describes the remaining phases of product development (following the initial feasibility) that the institution must undertake and illustrates these processes with examples from varied MFI experience.

¹ These phases can take place sequentially or with a bit of overlap if speed to market is an issue, as is discussed in Chapter Three.

Figure 1: Traditional Approach to New Product Development



Sources: Glen Urban, John Hauser, and Nikhilesh Dholakia, *Essentials of New Product Management* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1987), 26; Ellen Stein, *Product Development: A Customer-Driven Approach* (Boston: Harvard Business School Publishing, 1994), 2–3; and Booz Allen & Hamilton, *New Product Management for the 1980s* (New York: Booz Allen & Hamilton, 1982).

The design and development phase, the subject of Chapter Two, delineates how to design and develop a *prototype* (a representation of all or parts of a product) to be pilot tested. This phase requires two major steps:

1. **Internal setup.** This process involves mobilizing the interdepartmental collaboration necessary to undertake the development of the new product including identifying a product champion (its main proponent), staffing the cross-functional team, and building institutional buy-in, or full acceptance, of extending the product line.
2. **Market research.** Once the desired product mix has been defined, the MFI undergoes a process of segmenting the market and forecasting demand through different methods of market research. Sources of information and approaches for gathering data can be pulled from both inside the organization and external sources, including valuable customer feedback.

Chapter Three covers the pilot test phase, which involves the introduction of the *prototype* into the market on a limited scale to provide a reality check on the research and to refine the product. *Pilot testing* helps predict the product's future market acceptance. The process involves:

- Selecting test sites, which includes the size of test group, location of test, and *target market*;
- Setting landmarks during the pilot test to pause for analysis and product refinement;
- Establishing test duration by comparing the benefits of thorough field research with the costs involved, including direct cash outlays and the *opportunity cost* of time and market share; and
- Analyzing the results of the pilot test by considering the financial, competitive, methodological, and institutional issues of adopting the new product.

Success in the pilot test phase will be defined differently for each individual MFI based on its market environment and its stage of institutional growth. A younger MFI coming into a new market may decide to forgo early returns and price its product to get a firm footing in the market in the hopes that the positioning will pay off in the future. Chapter Three will also suggest criteria that an MFI can use to decide if it should expand its product line and evolve its methodology.

Chapter Four discusses the challenges of commercialization and launch, or product roll-out, in the event of a successful research phase. Product scale-up, or rolling out the product to the entire market, starts with the four Ps of marketing—product (design), price, promotion, and positioning (including both physical distribution and market positioning vis-à-vis competing products). Implementation of a new product also requires building up the institutional capacity of the organization in terms of staff training, incentives, and information systems.

The concluding chapter looks at the tracking of the product's life cycle, which includes a product's initial implementation and subsequent market penetration. Product development is treated as an ongoing process of refinement based on client feedback and market analysis. Successful new product development is as much about revising and repositioning existing products as they move through their life cycle as it is about innovation. More broadly, the technical note concludes with a discussion of factors that affect the adherence to or deviation from a systematic product development process. These key success factors for product development summarize the lessons learned from the experience of conventional and microfinance institutions examined in the preparation of this technical note.

The technical note also includes four annexes. Annex A provides a summary of the research methodology used to survey financial institutions and a list of the conventional banks, community development financial institutions, and MFIs that were interviewed or examined. Annex B provides definitions of conventional business terms used in the discussion of new product development. Terms that are defined in annex B appear in italics throughout the text for easy reference. Annex C uses the example of BancoSol in Bolivia to illustrate how an MFI's *monoproduct* (single multifaceted product) can be separated into distinctive features for analysis. Annex D describes how basic measures of financial return are calculated. It presents formulas for return on investment (ROI) and free cash flow (CF), which touch upon

fundamental aspects of evaluating the value of a particular project, and formulas for net present value (NPV) and internal rate of return (IRR), which determine the time value of money.

CHAPTER TWO PRODUCT DESIGN AND DEVELOPMENT

Both an absentee captain and mutinous sailors will scuttle a ship. Anonymous.

As reflected in this maritime truism, both teamwork and leadership are critical to successful product development. Accordingly, this chapter covers the cross-functional skill set needed on a product team to keep the development process on track and moving forward. The part of the product development process covered in this chapter is the internal staffing and market research required to prepare the *prototype* for testing. The process by which the product development team is mobilized, and the manner in which it undertakes market research, will influence the design of the prototype, the sample test product.

Successful product design and development involves:

- *The team.* Multidisciplinary skills and a product champion.
- *Buy-in.* Support within the institution for the process.
- *Market segmentation.* Definition of the customer group to be targeted.
- *Market research.* Identification of unmet or poorly met financial service needs and design of the product prototype.

INTERNAL PREPARATION: ASSEMBLING THE DEVELOPMENT TEAM

The first step to methodical product development is mobilizing the organization to introduce a new product to the market. For organizations that have evolved from a specific financial methodology, the proposed addition of a new product will have repercussions throughout the organization. It is important to explain to the institution's personnel the rationale for changing the methodology and expanding the product line because buy-in is crucial for successful implementation.

A collaborative approach will help define the specific product team that will carry out the development process through the pilot phase. At conventional financial institutions, successful new product development typically involves a product champion who will motivate personnel and manage the process and a cross-functional team that performs necessary tasks and helps build buy-in.

Product Champion

The product champion is typically the person who becomes the product's main proponent and assumes responsibility for managing the development process. The product champion is the *de facto* leader of the team that oversees the market research and *pilot testing* phases and maintains the momentum behind what can be a tedious process. This person is responsible

for motivating colleagues to serve on the cross-functional team and is accountable for keeping them on track. The product champion infuses vitality into the process, and is often called upon to sell the product to decision makers including senior management and board members. If the organization is very hierarchical, the product champion may have to be someone in a senior management position to have credibility, but this rank is less critical in flatter, more entrepreneurial organizations.²

For the MFI, a product champion is essential because it is likely that the organization will resist change. Such resistance has already been seen in many conventional financial institutions. The experience of one well-known firm was that: “When it comes right down to it, introducing change into the organization is difficult. New product activities upset fixed routines and schedules. The product champion facilitates change by accepting risk and making a personal commitment.”³ Moreover, given how uncommon new product development is as a practice within MFIs, someone at a senior level within the organization will likely have to lead this charge. The Get Ahead Foundation in South Africa provides an example of the need for leadership within the MFI experience. Its graduate loan program suffered due to senior management turnover and it found that: “Without a product champion, the individual loans never really took off.”⁴ To a lesser extent, BancoSol in Bolivia faced challenges in mobilizing savings, even though it approached the process using many of the methodical steps outlined in this chapter. The lack of a clear message from the board or senior management led branch managers to perceive savings not “as a mandate, but as an option.”⁵ Efforts to communicate the importance of savings for BancoSol’s development into a full financial services institution have helped improve the savings mobilization effort.

Responsibilities of a product champion:

- Oversee and guide the entire process;
- Set work schedules and maintain momentum behind project;
- Build institutional support for product;
- Manage the cross-functional team and keep it on track; and
- Sell the idea to decision makers (management and board) and key stakeholders.

Cross-Functional Team

Although the product champion is responsible for oversight of each step of the development process, the day-to-day tasks are undertaken by a product development team of key personnel from the different parts of the organization, which are critical to the product’s ultimate success. Cross-functional teams in most conventional financial institutions comprise three to

² Bob McNeely, interview by author, San Diego, California, 24 September 1997. Flat (versus hierarchical) organizational structures are characterized by a participatory approach to management, whereby lower levels of an organization are empowered to make decisions for which they are also accountable.

³ Booz Allen & Hamilton, *New Product Management for the 1980s* (New York: Booz Allen & Hamilton, 1982).

⁴ Craig Churchill, interview with author, Washington, D.C., 25 September 1997.

⁵ Arelis Gómez, *Banco Solidario S.A.: Savings Mobilization Study* (ACCION International, Somerville, Mass., 1997, internal document), p. 21.

seven staff members from the marketing, sales (credit officers), finance, management information systems (MIS), operations, and legal departments. In addition, if a financial institution ventures out into a new product territory (such as insurance), or a segment outside of its traditional target markets, then it will often solicit the help of outside consultants with expertise in that particular area. For example, BancoSol employed consultant Marguerite Robinson to help it launch a new saving product because of her many years of experience helping Bank Rakyat Indonesia (BRI) develop similar products.

Whether or not outside assistance is sought, it is important to have a multidisciplinary approach to product development and to incorporate the different functional aspects of the organization. Below is a list of the skills or departments that ideally would be represented in the cross-functional product team, with a corresponding explanation of the skill's role in design and development.

- **Sales (credit officers).** Because credit officers often deliver the final product, it is critical they have a thorough understanding of the product to sell it more effectively. Credit officers typically have the best understanding of clients' needs and preferences, gleaned from ongoing contact with them. They have a sense of price sensitivities and effective delivery channels that can be incorporated into the design of the new product *prototype*. In other words, credit officers can help decipher client needs and analyze how best to meet them in designing the *prototype*. On the other hand, some credit officers may misinterpret clients' needs so involvement in this market research may enhance their understanding of the market.
- **Marketing/Promotions.** This function is critical in helping ensure that products are developed from the point of the view of the market, rather than just from an internal perspective. Most conventional financial institutions have people devoted exclusively to delivering value to *customers*, although very few MFIs have dedicated marketing staff. Some MFIs have elements of the traditional marketing function on their staff, usually in the form of customer service such as at BancoSol, or promotions and publicity as at BRI.
- **Human Resources.** Someone on the new product development team should have an understanding of the ability of the MFI to design a training curriculum because training is an integral component of the new product pilot test and implementation process. This knowledge requires familiarity with the ability of credit officers to absorb the new product into their existing responsibilities, both in terms of the skills required to underwrite the new product and the capacity to sell and manage it. The sales representative on the product development team may be able to supply this insight, but human resources staff may have more expertise in training resources.
- **Finance.** The finance function helps evaluate risk and return of new product development to help balance the marketing perspective. In addition, financial staff can help determine if the MFI will have sufficient liquidity to meet the demand. Typically, a portfolio manager or chief financial officer can make this assessment.

- **Management Information Systems.** A key component of implementing the new product will be developing the internal systems to administer and track the new offering. Although most conventional financial institutions focus mainly on the technological aspects of management information systems, MIS track and monitor all the critical data of an organization. As such, bookkeeping and accounting ledgers, portfolio tracking, borrower information, and cost control, whether computerized or manual, all fall under MIS. Representatives from MIS need to be on hand in the design phase to ensure that the organization has the capacity to track data successfully and implement the new product.
- **Methodology/Research and Development.** Staff from these departments, to the extent that they exist, can bring valuable market information and a dynamic perspective to the product development process. Many financial institutions create a separate research and development department to keep abreast of industry trends, competitor activities, and changes in consumer tastes. MFI staff who specialize in the development of an organization's microlending methodology similarly have an important perspective regarding how new products fit into the evolution of an organization and its market.⁶ Some MFIs will hire market research consultants if they lack in-house expertise.

Members of the product development team will devote varying levels of time to product R&D, depending on their function and the staff constraints of the organization. Some skills are involved periodically (such as bookkeeping), while others are critical for the entire process (such as marketing). The product champion's basic responsibility is to coordinate and monitor the team in designing the *prototype*, which will become the pilot product to be tested in a limited number of markets or branches.

Institutional Buy-In

Sudden changes can be unsettling. To avoid resistance, the product development team should regularly communicate the progress of the testing process to their colleagues and engage the organization's input. Interdepartmental briefings are good settings for such discussions, because the success of developing, testing, and implementing new products requires drawing on the strengths and resources of different functional areas within the organization. This dialogue can also occur during strategic planning sessions or special meetings called by senior management to emphasize the importance of product development. The necessary number of meetings will vary with each institution, depending on the level of resistance. If the change is a significant departure from the MFI's current methodology, such as when a lender adds voluntary savings or when a group-based program introduces individual loans, an off-site retreat may be appropriate.

Buy-in meetings should have two main purposes: (1) to update the organization on the current and upcoming product development activities and (2) to solicit feedback on the product development strategy and implementation. For this second purpose, it is important that the meeting be structured as an open forum for feedback on the proposed product design,

⁶ Although most MFIs have staff dedicated to methodology rather than to R&D, there are exceptions, such as the Bangladesh Rural Advancement Committee (BRAC), which has a Research and Evaluation division.

or that a brain-storming session is scheduled to generate creative ways to incorporate the new product efficiently into the MFI's existing systems. Openness is critical to dealing with the likely resistance to introducing a new product because of the uncertainty involved in an organization's evolution. Senior management must explain why this change is necessary, given the changing marketplace and institutional evolution. It is also critical that management allow staff to voice their reservations and concerns and address these concerns openly, taking them into consideration when deciding whether and how to proceed with implementation.

Ultimately, implementation will be much more effective if staff have time to adjust to the introduction of a new product. More importantly, if the product is adopted, the staff will need to be prepared for significant changes in the organization, which may range from job descriptions and dress code to incentive schemes and organizational structure.

MARKET RESEARCH: DESIGNING THE PROTOTYPE

The new product team is charged with designing the initial *prototype*—the sample product to pilot test. To become a successful product, the *prototype* must be based on targeted market research.⁷ The product team needs to gather data that is qualitative, which will help decide how to design and deliver the product, and quantitative, which will help the MFI set a price and estimate demand. Too often financial products are treated as a fungible commodity that is differentiated only by price. Offering only price-specific products may make sense when an MFI is starting out because such a policy keeps program administration simple and expenses down. However, as an MFI grows and seeks to expand into new markets, it must consider a more sophisticated approach to product development. To create sophisticated products, the new product development team must consider the entire product, including its component parts, and solicit client feedback on four factors that marketing professionals refer to as the four Ps:

- **Product (design)**—includes specific features, terms, packaging, liquidity, ancillary services such as loan review and disbursement times, and collateral or guarantees;⁸
- **Price**—includes the interest rate, loan fees, prepayment penalties, prompt payment incentives, and other discounts;⁹
- **Promotion**—includes advertising, public relations, direct marketing, publicity; and
- **Positioning**—includes both the physical placement of the product (delivery channels through branches, door-to-door, automatic teller machines, affinity groups) and its

⁷ This section highlights a few market research techniques as they relate to new product development. For a more thorough discussion of the topics, see MBP's forthcoming "Marketing Technical Guide," by Leslie Wetzel.

⁸ Amortization and repayment structures could be considered pricing issues to the extent that back-ended balloon payments or interest-free grace periods impact the real costs to the borrower.

⁹ For example, Fundusz Mikro has a graduated pricing schedule based on group size that offers price incentives to borrowers to form larger groups that provide additional security to the lender.

competitive position in the market (low price, high quality, quick turnaround time, professional service, and so forth).

Each of these factors will be refined continually during *prototype* development and pilot test, and finalized during the product implementation phase. Nonetheless, the four Ps are central to the targeted market research involved in designing the product *prototype*. The steps involved in designing the *prototype* are:

- *Market segmentation*—identifying and characterizing the target segment;
- *General R&D*—collecting supporting data from available sources; and
- *Client feedback*—soliciting direct customer response to the product prototype.

Market Segmentation

Segmentation is an important information-gathering technique that involves dividing the market into target groups defined by certain shared characteristics. Segmentation helps the MFI identify market opportunities by customer group to more effectively design and target its new products. Specifically, it allows an MFI to make conscious decisions about cross-subsidizing, diversifying portfolio risk and other tradeoffs involved in serving multiple customer groups with different products. Groups into which markets are typically segmented include:

- **Geography.** Most MFIs divide their markets into geographical units, identifying specific characteristics of regions, towns, or villages. Geographic segmentation by region can make divisions by location such as south, north, central, mountain, or coastal; population density, differentiating urban, rural, and suburban areas; and climate such as tropical, arid, or temperate. Often, product design will reflect these geographic differences, for example by tying payment terms to seasonal climatic variations.
- **Demography.** Demographic analysis involves segmenting the population by certain shared characteristics, such as age/generation, social class, marital status, family size, ethnicity, race, religion, occupation, and level of education. In conventional business, demographic variables are the most commonly used for differentiating target markets, mainly because they are easily measurable and are strong predictors of consumer preferences and usage rates.¹⁰ The three most common demographic characteristics used to segment markets in microfinance are gender, income, and industry/occupation.
 - *Gender.* Many microfinance programs, such as the Self-Employed Women’s Association (SEWA) of India, target women explicitly both because female-headed households are among the poorest in the world and because of women’s propensity to reinvest their earnings into their family’s health and education.¹¹ This latter reason

¹⁰ Philip Kotler, *Marketing Management: Analysis, Planning, Implementation, and Control*, 9th ed. (Upper Saddle River, N.J.: Prentice Hall, 1997), 258.

¹¹ Eliana Restrepo Chebair and Rebecca Reichmann, *Balancing the Double Day: Women as Manager of Microenterprises* (Somerville, Mass.: ACCION International, 1995), p. 6.

- helps explain the popularity of savings products among women microentrepreneurs and why they have repeatedly proven to be better credit risks than men in many different country settings.¹² In addition, women-run microenterprises have shared characteristics that suggest product features more appropriate for this *target market*. Common characteristics include faster operating cycles (shorter terms), slower growth rates (smaller loans), fewer assets and employees, and severely time-constrained managers with less formal sector exposure/experience and lower levels of literacy. Corresponding product features include simple applications with quick turnaround time.
- *Income*. Some MFIs target microentrepreneurs earning less than a certain amount. If an MFI serves different economic classes of the population, income segmentation can help isolate the different needs of these target markets. Cajas Municipales in Peru began identifying a middle-class market segment for its savings product because this group typically has more stable accounts, makes larger deposits, and has fewer withdrawals than poorer groups, which “provide[s] a more agile source of funds.”¹³
 - *Industry/Occupation*. Some MFIs offer specialized products by industry, such as agriculture, fishing, and trade, or by occupation. TSPI in the Philippines designed a group loan product for taxi drivers who resourcefully drive motorized tricycles to circumvent the chronic congestion.¹⁴ BRAC in Bangladesh typically identifies specific industries (like fishing or livestock) tied to development objectives to provide targeted financing. These targeted financial products are structured to match the seasonal funding needs characteristic of particular industries.
 - ***Business Size***. Business size is similar to income segmentation. MFIs can differentiate enterprises by their sales, number of employees (if any), or profit size. Asociación por el Desarrollo de la Microempresa (ADEMI) in the Dominican Republic, for example, has designed specific products to target small, as well as micro, businesses.
 - ***Financing Need***. Commercial lending institutions often segment the market by product type or the corresponding financing need. Similarly, MFIs often segment the market by those enterprises requiring working capital (the most prevalent type of microfinance product) versus those wanting to purchase fixed assets or to finance infrastructure improvements. For example, Banco Solidario in Ecuador is piloting a factoring product targeted at clients whose business cash flow is significantly tied up in their accounts receivable. Another example of segmenting by financing need would be loan size, which is not necessarily connected to business size, although many MFIs mistakenly equate the two.
 - ***Behavioral***. Behavioral segmentation divides *customers* into groups based on their attitude toward, use of, or response to a particular product. Examples of behavioral

¹² Jaysyree Vyas, telephone interview by author, Ahmedabad, India, 16 November 1997.

¹³ Jill Burnett, *Cajas Municipales of Peru: An Organizational Review* (Toronto: Calmeadow, 1998), 17.

¹⁴ Churchill, interview. Two of ACCION International’s domestic lending affiliates (in New York City and San Antonio, Texas) similarly treat taxi drivers as a distinct target market for its group loan products.

segmentation include loyal, repeat borrowers versus those who are very price sensitive; borrowers who are interested in tailored financial products and hand-holding versus those who want quick, efficient service; and borrowers who begrudgingly use an MFI because they have no choice versus those who have enthusiastic feelings. Behavioral segmentation is common among MFIs, which often group clients by repayment history because responsible clients are lucrative.¹⁵ Another behavioral segment used in both conventional and microfinance settings are those customers that are status conscious. BancoSol has lost some of its Santa Cruz customers to regulated cooperatives whose closed membership and association fees offer an intangible benefit of prestige: “There is membership status. Becoming an *asociado* [member] gives clients the perception that they’re breaking into mainstream.”¹⁶

Segmenting the market can identify niches where new products can fill an unmet need. Accordingly, the product development team should segment the market in a way that identifies clusters of potential *customers* from whom to elicit feedback on the *prototype*.¹⁷ Once the *target market* has been identified, the product development team will start collecting data on the segment to design product characteristics. *Secondary data*, information usually collected by external sources for some other purpose than product development, is typically the starting material for the product development team because it is relatively inexpensive and readily available. *Primary data*, information collected specifically for a particular project, is typically direct, field-based research and is more dear – both in terms of cost and value to the institution. Both are critical sources of information for the initial product design.

Secondary Data—General Market Analysis

The product development team needs to get as much market information as possible to design the product features. Most financial institutions have built up a valuable internal database from their experience with lending and through general research and development. This information can provide valuable insight into designing the new product. Sources of *secondary data* are as follows:

- ***Current Product Information.*** To unearth market information hidden in their portfolio, MFIs should go through a process of product disaggregation, where *monoproducts* (single, multifaceted products) are separated for analysis by distinctive features such as term structure, loan size, guarantee, or price (see Annex C). By examining the repayment history and other characteristics of current customers by product feature, the MFI can gather valuable information about different market segments. For instance, information on which clients are price sensitive or which prefer individual versus group loans. One

¹⁵ However, increased competition can erode consumer loyalty and the inconvenience of changing banks (known as high switching costs) upon which MFIs depend for client retention.

¹⁶ Hermann Krutzfeldt, “Marketing Strategies in a Competitive Microfinance Market,” (presentation at the fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997).

¹⁷ A product can be offered to multiple segments (for example, different income classes), but they will typically have distinct terms that reflect the preferences and needs of customers in these respective markets.

useful, but expensive analysis that can help an MFI price its products more accurately involves *activity-based costing*, which, as its name implies, separates costs by fundamental business units. Some MFIs, such as Cajas Municipales de Arequipa and Banco Solidario de Ecuador, track cost and income information by branch or by product to enable more effective pricing policies.¹⁸

- **Company Documents.** Loan files of both accepted and declined clients contain valuable information about client preferences and projected demand. If this information is stored in a database, files can be sorted by geography, income level, type of business, and so forth to see if any trends surface that can provide insight into target markets for the new product. Financial institutions can also manually review decline files to make demand projections, tallying declines based on the reasons for denying credit to borrowers. Although MFIs can be lax in maintaining the quality of databases, the importance of keeping timely, well-organized, and detailed records on portfolio enterprises and customers that were declined cannot be overstated. These databases allow for more effective management of current clients and are a rich source of leads for new market opportunities. Bank of Boston developed a subordinated debt product by surveying more than 300 decline files from 13 cities, projecting demand for its new product by categorizing the declined applicants by business type.¹⁹
- **Competition.** New product development teams should pay close attention to price, packaging, and placement of competitive products when they design a *prototype*. Comparison with the competition is a critical part of product positioning. For example, BancoSol based the loan maximum for its newly introduced individual credit, in part, on the higher denominations offered by its competitor, Cajas de Los Andes.
- **Market Studies.** Many financial institutions undertake periodic market studies, usually performed by dedicated R&D departments, as part of their regular operations. This market research helps the organization stay abreast of client needs, competitive comparisons, and industry trends. A few MFIs, such as FondoMicro and Banco de la Pequeña Empresa, both in the Dominican Republic, have begun researching market developments on a regular basis. Although this research is “not principally geared as a tool for the development of new products, it does contain a lot of useful material” on demand for credit and savings services, collateral, and other information that could be used in product design.²⁰ When introducing complex or risky products, Banco Caja Social carries out several market studies representing less than 1 percent of its total operating expenses, or

Market studies represent less than 1% of total operating expenses for an MFI and about 1-3% of operating expenses for conventional financial institutions.

¹⁸ Banco Solidario de Ecuador’s tracks three types of activity by product: promotional expense, number of new loans, and collection/delinquency rates. It paid approximately \$80,000 to create and implement this detailed, *activity-based costing* tracking system.

¹⁹ Jeffrey Zinsmeyer, interview by author, Boston, Massachusetts, 24 September 1997.

²⁰ Mario Dávalos, e-mail interview by author, 14 November 1997.

about US\$0.15 per customer in 1997.²¹ This cost is comparable to most of the conventional financial institutions surveyed, which typically spend between one and three percent of operating expenses on market research.

- **Public Information.** In industrialized economies, census statistics, trade periodicals, and other publicly available information can be useful in designing the pilot test for the *prototype*. Although reliable data sources on the informal economies have historically been scanty, some do exist. Chile, for example, has well-developed credit bureaus that provide valuable information about repayment practices. Moreover, in many Latin American countries, periodic household surveys carried out by the national census or statistical bureaus can provide helpful information for estimating demand potential and market size.
- **Private Networks.** A number of trade associations to which conventional financial institutions belong provide information on customer trends that can be used to design new products. Although MFIs have few similar industry fora, some belong to networks that are linked to affiliated organizations in other countries. These networks, such as ACCION, FINCA, Women's World Banking, and Freedom from Hunger, house the accumulated experience of their individual affiliates. In addition, in some countries (Kenya, for example) competing MFIs will collaborate to share such information as number and status of current clients to manage the risk of overlapping loans or poor payers.²²

In deciding which secondary information sources to use, the focus should be on relevance to the product, market, and time period being investigated and on accuracy, that is on using the most objectively collected and reported data. Only some *secondary data* will meet these criteria. Thus, primary research based on direct client feedback must complement this general market analysis to refine the product design and make realistic projections about demand.

Primary Data—Client Feedback

The final refinement of the product *prototype* requires direct input from potential customers drawn from targeted market segments. This type of reality check is critical to the success of the pilot test and the ultimate commercialization of the new product. Financial institutions surveyed use a variety of client feedback techniques.

- **One-on-One Interview.** One-on-one customer feedback sessions can be conducted in person or over the telephone. Although institutions can schedule interviews if they want to target specific people, they more typically rely on intercept interviews where the researcher stops (or “intercepts”) people in shopping centers, outdoor markets, or busy

²¹ CGAP Working Group, “Comparative Analysis of Savings Mobilization Strategies: Case Study Banco Caja Social (BCS), Colombia,” Financial Instrument (forthcoming), 14.

²² Kimanthi Mutua (comments made at the fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997).

street corners.²³ In these public fora, the interview typically will last about three to five minutes. FINCA Uganda determined the initial parameters of its newly launched insurance product through these types of informal interviews. MFIs such as BRI have used other social channels, such as churches, community groups, and trade associations to obtain more in-depth client feedback.²⁴

However, conducting market research through personal interviews has some negative aspects. First, this type of research is time and labor intensive and therefore costly. Moreover, because an MFI's market research budget and staff time are limited, the number of interviews that can be held likely will not be statistically significant.²⁵ The information will be interesting and often insightful, but it will be anecdotal at best. Conventional banks typically use this type of research in the early stage of market research to gauge general interest levels in a particular product. For in-depth feedback, they rely on more scientific research methods.

- **Focus Group.** *Focus groups* are targeted client feedback sessions where 6-12 people are convened to discuss the product. Although both time- and resource-intensive, this research approach allows for in-depth, qualitative feedback from potential customers, especially on the ancillary product (what kind of customer service they expect, how quickly they need loan application turnaround, what the branch environment is like, and so on). BancoSol conducted *focus groups* with clients to determine how its products fared against competitors and to identify features to incorporate into new individual loan products.²⁶

In structuring a *focus group*, most conventional financial organizations follow a few rules of thumb. To feel comfortable with their conclusions, financial institutions will typically run 4-10 focus groups using participants that are drawn about half from existing customers and at least half from prospects to note any difference with usage or perception of the product.²⁷ The importance of having some neutral or objective participants was highlighted in BancoSol's savings mobilization efforts, where initial research overestimated the actual demand in part because they surveyed only "their best and/or most loyal borrowers."²⁸ *Focus group* sessions should last about two to three hours, and participants should receive some nominal fee or some refreshments for their time.

²³ Bank of Boston will usually conduct 200 of these intercept interviews at a cost of \$3,000 to \$4,000 to get a feel for customer interest in the product. Melody Bohl, telephone interview by author, Boston, Massachusetts, 20 November 1997.

²⁴ Marguerite Robinson, "Savings Mobilization and Microenterprise Finance: The Indonesian Experience," in *The New World of Microenterprise Finance: Building Healthy Financial Institutions for the Poor*, edited by Maria Otero and Elisabeth Rhyne, (West Hartford, Conn.: Kumarian Press, 1994), 31.

²⁵ In other words, the information cannot be applied to the population as a whole with a high level of certainty.

²⁶ Alex Silva, interview by author, San Jose, Costa Rica, 2 October 1997.

²⁷ Bohl, interview.

²⁸ Gómez, "Banco Solidario S.A.," 8.

A negative aspect of *focus groups* is the risk that participants will act the way they think they are supposed to behave. The result is pilot tests that diverge significantly from the focus group results. “What people say is different from what they do. The only way to know the bottom line is to do it—that’s why we start with the pilot test.”²⁹ Some conventional institutions have tried to resolve this problem by providing detailed instruction sessions to prepare *focus group* participants, explaining that the purpose of the gathering is to generate honest feedback and emphasizing that there are no “correct” answers.

Well-designed focus groups should:

- Be repeated 4-10 times for **reliability**.
- Draw from a mix of old and potential customers for **objectivity**.
- Be 2-3 hours in **duration**.
- Offer some type of **compensation** to participants.

- **Sample Survey/Questionnaire.** Direct mail and telemarketing (phone surveys) are formats used by many conventional financial institutions, especially credit card companies, to gather quantitative information about customer segments. If an MFI decides to conduct a survey, local consultants with expertise designing unbiased questionnaires (random sampling at chosen confidence levels³⁰ and so on) should be brought in to conduct the survey.³¹ In developing countries where clients may be illiterate, mail is unreliable, and telecommunications have limited reach, alternative formats are utilized. One method is for loan officers to verbally survey clients regarding a specific product idea. For example, in Bangladesh, door-to-door surveys were conducted. This format, however, is relatively cost-intensive and requires special staff training to provide reliable results.

Another method is to use the normal loan review or renewal process to gather information about client preferences. Specific questions could be added to the loan application, but these should not be too extensive as MFIs surveyed have indicated that more than a half-page worth is burdensome. Moreover, information provided after loan approval or at final payment (such as via an exit interview) would be more reliable than during the application process, where the customer has a vested interest in providing favorable responses.

Participatory methods traditionally used for community planning and development, such as seasonal mapping and pairwise ranking, can also be useful tools for learning about client preferences. Seasonal mapping links seasonal activities and events to problems, for instance, linking crop seasons to need for savings. Pairwise ranking requires clients to rank different pairs of options, for example, trade-offs between interest rate level and time spent in meetings. Participatory methods engage relevant stakeholders in addressing certain problems and help to strengthen the relationship between the client and the MFI. The process can be time-consuming.

²⁹ Rosalind Copisarow, telephone interview by author, Warsaw, Poland, 21 November 1997.

³⁰ Confidence levels measure the probability that the sample results are representative of the whole population.

³¹ Both Fundusz Mikro in Poland and Banco Caja Social contracted with outside consultants to conduct their market studies. In contrast, FondoMicro in the Dominican Republic brought this expertise in-house in 1992, and since then has conducted annual surveys of more than 2,000 households.

- ***Real-time Research.*** This research approach uses a control group against which the results of the experimental group are compared. For example, during one month, an MFI could offer a promotion changing the price or terms of a product, then during another month in the same season change a specific aspect of the offer. Another example would be if the MFI introduced the same special offer in two distant branches. The purpose is to obtain more conclusive cause and effect results than can be gleaned from observational research. However, because it is difficult to control for the many variables affecting informal economies, a truly scientific result is not the goal. Rather, this research approach is an opportunity to try out the prototype, prior to the actual pilot test, to find ways to refine it.

The product development team will use this research to finalize the prototype to be tested in the market. Finalizing could involve adjusting the terms of the product or possibly how it is promoted, based on the customer feedback. The more the prototype incorporates known consumer preferences, the more useful the pilot test results will be. Either way, the MFI will gain valuable insight from the pilot test when the product prototype is offered in a real market setting.

CHAPTER THREE PILOT TESTING

Treat the customer as an appreciating asset. Tom Peters, *Built to Last*³²

The most valuable source of information for the MFI is its customers. It is critical that the MFI understand customer needs and preferences because their acceptance of the product will determine its success. The pilot test is designed to garner market information in a controlled way by offering the prototype to a limited number of customers. The pilot test provides not only a reality check on the market research undertaken, but it also will afford the institution an opportunity to refine the product before its initial rollout. The pilot test thereby helps ensure a certain level of market acceptance once the product is commercialized. This chapter reviews the important aspects of designing, conducting, and analyzing a pilot test.³³

Steps for conducting a pilot test:

- Select size, location, and target sample;
- Establish benchmarks for analysis and refinement;
- Determine the optimal duration; and
- Evaluate the results.

SETUP

The product development team must carefully plan and closely monitor the pilot test. The key steps for setting up the test are as follows:

- Choose 1-2 test sites from a subset of the *target market*,
- Determine sample size by weighing the benefits of accuracy against cost, and
- Establish a location, selecting a site that allows the product development team easy access.

Test Sites

The pilot test site should be a subset of the *target market*—the group of customers in the overall potential market population on which an institution decides to focus its pursuit, based on its market segmentation. In the interest of maintaining control and intervening when necessary, the team should choose a manageable number of test sites (one or two). The actual

³² James Collins and Jerry I. Porras (contributor), *Built to Last: Successful Habits of Visionary Companies* (New York: Harper Business, 1997), p. 37.

³³ This chapter incorporates the experience of BRI in Indonesia, Fundusz Mikro in Poland, and BancoSol in Bolivia.

number of sites will vary, with more undefined product prototypes requiring more tests. BRI introduced its new savings product in just one district branch within West Java, which represented about 10 bank “units” (branches). Fundusz Mikro ran three different pilots of a modest scale because it was a start-up program in a newly capitalist country with a nascent microfinance field.

Sample Size

Deciding on an optimal size of the pilot test involves weighing the benefits of accuracy against cost. Generally, the sample size (the number of people involved in the test) should be large enough to enable the researcher to feel confident about the data gathered, but small enough so as not to make information gathering prohibitively expensive or close monitoring too difficult.³⁴ Most conventional banks will roll out their products in one to four designated markets with populations of more than 100,000. This was the case with BRI, which piloted its SIMPEDES savings product in the unit banks in Sukabumi district. By contrast, for specialized niche products, market size is not as important as having two contrasting settings. Similarly, for MFIs serving smaller countries, the population size each branch serves will be far less, varying between urban and rural branches. BancoSol chose branches in the urban Villa Fatima and the semi-rural El Pari to pilot its savings product, which served a combined population of just under 50,000 people. These cities are located in different areas of the country and have different cultures, emphasizing the importance of testing a variety of settings to prepare for the planned market launch.

Location

It is important that the product development team be in close proximity to the one or two test markets to carefully monitor the situation and confront problems as they arise. Proximity allows the product development team to gather the necessary information to refine the product, and to help guide staff when the product is finally delivered. One of the reasons BancoSol had difficulty maintaining the initial momentum of its savings mobilization effort as it expanded into the town of El Pari was that the product development team responsible for overseeing the pilot test stayed in its headquarters at Villa Fatima, the initial site.³⁵ In contrast, BRI rolled out its product in neighboring district branches.

³⁴ The sampling error—the probability that the observed characteristic of the sample is not representative of the entire population—is a function of the sample size (the number of people being tested), the sampling fraction (the percentage of the population being tested), and the variation in the variable being measured. The sampling error is inversely proportional to the square root of the sample size; in other words, quadrupling the sample cuts the error rate in half.

³⁵ Gómez, “Banco Solidario S.A.,” 11.

INTERVENTION

The purpose of the pilot test is to gather information to determine the commercial viability of the product. The product development team must establish benchmarks or *hurdles* defining the institution's goals for the product pilot test. These objectives could be in terms of loan volume, market penetration, average loan size, delinquency rates, or others. Once the hurdles are defined, the product development team must intervene periodically during the pilot to pause to collect data, adjust the product features, and refine the test process if needed. Suggested markers to guide product team interventions in the *pilot testing* are as follows.

- ***Gather and assess information to refine the product.*** The product development team should pause when the first landmark is reached. The marker can be defined in terms of time or loan volume. Of course, the pilot may end before the pre-established landmark in the event of unanticipated success (high loan demand) or problems. BRI ended its pilot for a smaller-scale KUPEDDES product before the one-year planned marker because its target loan amount was hit within three months of the launch.³⁶ BRI's SIMPEDES savings product was highly successful, almost doubling the amount of deposits mobilized by the existing product. However, the labor-intensive administration, delivery, and promotions were unsustainable, so modifications were made to bring the cost in line with other savings products.³⁷
- ***Expand to a few additional markets.*** Once initial test results have been collected, the MFI should consider expanding the pilot test. Added test sites must have an adequate level of oversight to ensure quality control and accurate capture of market information. This may require splitting the product development team or drawing in additional staff to cover each test site. The importance of restocking the product development team as the pilot expands was illustrated in BancoSol's experience with its savings mobilization pilot. Although strong demand may accelerate the expansion process, it is important to take on additional risk incrementally and to anticipate potential problems.
- ***Gather information for analysis.*** This should be done at the next landmark in the expanded market, which can be measured in months or loan cycles, to view repayment performance. Once the pilot has demonstrated a level of product acceptance, the team must gather data that will be evaluated to decide whether to proceed with commercialization. Useful information includes loan or deposit volume and account activity, including repayment record; costs differences by region, if any; and qualitative information, such as application procedures, valuation of guarantees, and so forth. This data will assist the team in preparing to roll out the product to different market segments during its full-scale launch.

³⁶ This pilot product was aimed at reaching lower segments of the market than its existing loan product, KUPEDDES. Jarot Eko Winarno, "Small-Scale KUPEDDES loans at BRI: The Product Development Process," (fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997).

³⁷ The changes to the product included a graduated interest rate that increased with deposit size and semiannual (versus quarterly) lotteries. Robinson, "Savings Mobilization and Microenterprise Finance," 43.

TEST DURATION

The product development team must determine the duration of the pilot test. It will vary with the specifics of the product and market conditions and involves a trade-off between cost and completeness or reliability of the test results.

Fundamentally, the duration of the pilot test will be based on the terms and repayment structure of the loan. For most short-term products, the design and development process (including pilot test) will last six months to a year at a minimum, with the average length closer to one to two years before full product roll-out. Copisarow used as her rule of thumb the number of “major” adjustments that needed to be done to the product design: “We started with zero demand, so we put in financial incentives. . . . By year two, we were refining specific terms of the loan agreement, so we knew we were ready to expand.”³⁸ Loans with longer or more subordinated terms require longer pilot tests to determine how the product will perform in the market. As one banker explained, “We need to determine what happens to a loan as it seasons, so we understand its true risk characteristics. If the product doesn’t require payments—like subordinated debt—we can’t determine if it fits into our risk profile after just one year.”³⁹

Although longer pilot tests establish a higher comfort level that the product will be commercially viable, they can impose financial and competitive costs, particularly in fast changing markets. The trade-off includes both the actual costs of administering and monitoring the pilot test and the *opportunity costs* of being late to market. Some conventional financial institutions have experimented with more streamlined product development processes, condensing the steps to overlap between the prototype development and *pilot testing* phases. The following considerations in pursuing this parallel (versus sequential) product development process are relevant for MFIs in competitive markets.⁴⁰

- ***First Mover Advantages.*** Winning customers first is valuable because of the loyalty they typically show for a particular bank.⁴¹ Also, some banks limit the pilot test phase to avoid tipping off the competition to new product ideas. However, first mover disadvantages also exist. There is a cost to inventing the wheel, especially if market acceptance of the product is slow. Also, rushing to market could set off price wars if there are low *switching costs* or limited brand loyalty to a given institution.
- ***Catch-up/Crisis.*** Sometimes a financial institution is pressed for time because its product development is reactive rather than preemptive. There is pressure to develop a competing product quickly to retain market share. Additionally, in rapidly changing or unpredictable

³⁸ Copisarow, interview.

³⁹ Leslie Davis, telephone interview by author, Chicago, Illinois, 8 September 1997.

⁴⁰ *Parallel development* means that the phases of new product development overlap as opposed to being implemented sequentially. For example, pilot testing would begin before the prototype was finalized.

⁴¹ Low customer turnover has more to do with the hassle of changing bank accounts (high switching costs) than any strong affinity or fondness for a particular financial institution.

markets—such as during periods of hyperinflation or political upheaval—market research can be unreliable or too costly to obtain. In these cases, a quick product development process is a better response to a crisis than a thoughtful reply to client demand.

- ***Internal Impediments.*** The presence of product detractors within an organization is a strong argument in favor of an incremental (versus *parallel*) product development process. The pilot phase allows for implementation of the administrative and operational adjustments necessary to overcome organizational resistance to change. This preparation includes training and other capacity-building activities that are time-intensive. These points are especially relevant for MFIs evolving from methodology-driven to product development organizations.

EVALUATION

Once the information from the pilot test has been gathered, the product development team must evaluate whether commercializing the new product is worth the investment. Most conventional banks will have evaluation criteria that any proposed project must meet for the bank to undertake it. These typically quantitative criteria include:

- *Financial viability*, such as return on investment or loan volume;
- *Competitive considerations*, such as market share or product mix; and
- *Institutional factors*, such as infrastructure, management information systems, and human resources.

Almost all the conventional financial institutions interviewed advocated using multiple criteria and balancing the weight given to each. This approach makes sense for an MFI because it allows it to add social goals to the evaluation.

Financial Viability

Administering a diverse product line is a costly, complicated endeavor. Consequently, there must be strong market prospects to ensure the continued financial viability of the institution. Conventional financial institutions often set absolute measures, or *hurdle rates*, that must be exceeded to justify a new product launch. Common financial hurdles are typically measured in terms of projected profitability (return on investment or sales), loan volume, or market share. Another common benchmark financial institutions have established are minimum *internal rates of return (IRR)* based on the *opportunity cost* of capital, that is, the amount the institution could earn on its next best investment.⁴² Other institutions simply cap the amount

⁴² Banks use a variety of benchmarks to set this minimum internal or “hurdle” rate of return, including the cost of capital (or prime rate), its historic return on equity, or competitors’ returns. Michael Flemming, telephone interview by author, New York, New York, 4 September 1997; and McNeely, interview.

of investment dollars or loan capital available for an initial product rollout.⁴³ Annex D provides formulas for basic financial hurdles often used by conventional financial institutions and explains how they are calculated.

To meaningfully apply financial hurdles, the MFI must diligently estimate the anticipated sales and the corresponding costs to ensure that the product is financially sustainable. When projecting profitability, it is critical that the MFI consider the implicit costs (and revenues) that are not directly tied to delivering the product, but which are created by its introduction. Such costs include the *cannibalization* of existing products,⁴⁴ as well as the increase in demand for complementary products. For example, introducing savings accounts typically sparks demand for larger individual loan products.⁴⁵ Offering a wide range of products, “particularly in the case of small institutions, pushes up costs” of training, MIS, and financial controls.⁴⁶ Other costs are tied to the risk inherent in some products such as increased provisions for bad debt associated with higher default rates or deposit insurance that sometimes must be offered to mobilize savings.

Typically, it will take from several months to a few years for a product to break even, and the MFI must consciously make provisions for meeting the shortfall in the interim. Self-Help Credit Union typically conducts a rolling evaluation of its new products, adjusting the price and terms as necessary to ensure that the products become financially self-sufficient.⁴⁷ Sometimes negative *net present value* (NPV) projects are accepted because of the social returns that come with a given product.⁴⁸ But these decisions should only be made if the new product complements existing ones, so that the NPV of the entire portfolio increases with the introduction of the new offering.

Competitive Considerations

Financial projections are tied to the competitive considerations of commercializing a new product. One important competitive issue is the market share the MFI may obtain by expanding its product line. Market share is determined by the retention of existing customers,

⁴³ The commercial lending division of Shorebank will typically allocate \$5 to \$10 million in loan capital on any given pilot test, or approximately 5-10 percent of their annual investment portfolio. Davis, interview; and Shorebank *Annual Report*, 1996.

⁴⁴ *Cannibalization* is what happens when the introduction of a new product diverts sales from a company’s existing products. In other words, cannibalization is when revenue is displaced, rather than created.

⁴⁵ Marguerite Robinson, “Introducing Savings Mobilization in Microfinance Programs: When and How,” (presentation at the third annual conference of the MicroFinance Network, Cavite, Philippines, 8 November 1995).

⁴⁶ Anja Lepp, “Financial Products for MSE—Municipal Savings and Loans Banks of Peru,” *Small Enterprise Development* 7, no. 2 (June 1996), 18.

⁴⁷ Bob Schall, telephone interview by author, Durham, North Carolina, 21 October 1997. Mr. Schall notes that Self-Help subsidizes the equivalent of one employee devoted to a new product during its first year of development and launch. Accordingly, they adjust the pay-back period, allowing two to three years for larger projects to meet their financial targets.

⁴⁸ Net present value (NPV) analysis compares the costs of developing and administering a new product to the discounted cash flows it will generate. Negative NPV implies that costs are greater than the discounted, projected income streams. (See Annex D.)

the capture of new ones that were lured away from the competition, and the acquisition of new *clients* that were previously unserved.

Other competitive considerations revolve around the product mix. For example, a new product may enhance an MFI's current offering if it is complementary. Such was the case when Banco Solidario in Ecuador introduced microfactoring and microleasing products to attract more sophisticated, higher net worth clients. However, new products can also dilute the brand equity (the value the customer puts in an organization's name and reputation) if their quality is not carefully monitored. BancoSol initially put its strong reputation into question through a poorly planned launch of a voluntary savings product; customers mistook the transfer of funds out of their existing, mandatory savings account as a sign that BancoSol was in financial trouble.⁴⁹

Important competitive considerations:

- *Market share*: customer retention, competitive capture, new clients.
- *Product mix*: new products complement or dilute existing ones.
- *Position in the marketplace*: maintain or enhance position.

When contemplating a product line expansion, an MFI must consider its positioning in the marketplace. For example, an MFI that is transforming into a formal financial institution may have to incorporate certain core products, such as savings accounts, in order for potential *clients* to treat it seriously as a bank substitute. Or, an MFI may want to identify itself with a particular market segment, such as a village bank focusing on poverty alleviation. Although some FINCA affiliates have expanded their product lines (for example, the Uganda program, which offers life insurance), most FINCA programs have strikingly similar offerings.⁵⁰ FINCA's rationale for this product homogeneity is based on its *target market*—poor women whose priority is sustaining their family rather than growing their business.⁵¹ A product mix that is too diffuse can confuse customers: trying to be all things to all people often results in being very little for very few.

Methodological and Social Considerations

Methodological and social considerations have an impact on the decision to go forward with a new product. Ideally, new products will reallocate resources in a manner that supports rather than detracts from the MFI's mission. For example, an MFI may offer individual loan products in addition to the group-based lending methodologies to incorporate new borrowers. New products are often part of the evolution of an institution's methodology and may require temporary trade-offs. For example, becoming a full-service microfinance institution can cause an MFI to drift from the poorest segments of the market. Although in the long run such a move will likely make the MFI more able to serve harder-to-reach segments of the

⁴⁹ Gómez, "Banco Solidario, S.A.," 10.

⁵⁰ Within a given FINCA country program, there is no interest rate or term differentiation between different village banks, regardless of how many loan cycles they have successfully completed.

⁵¹ Till Bruett, interview by author, Washington, D.C., 25 November 1997.

population, in the interim, self-sufficiency prevails over social goals. However, the pressure to reach scale quickly must not come at the expense of maintaining a quality portfolio. An MFI must continually refine its methodology and product line based on its stage of growth. For example, FINCA is considering moving up the product ladder to serve the small percentage of its clients who are growth-oriented. “We want to find a way to serve the 10 percent of clients who want to grow without abandoning the 90 percent of our clients who are mothers first, and entrepreneurs second.”⁵² Similarly, many of ACCION’s affiliates continually grapple with ways to expand their reach, while making larger loans to existing borrowers to sustain the client retention that is key to sustainability. Ultimately, the pursuit of a social mission cannot override prudent financial management or the MFI could go bankrupt.

Institutional Factors

Employees accustomed to certain operating procedures may resist the changes that are a natural part of any institution’s growth. Change is disruptive and adapting is a time-consuming endeavor that can be difficult to achieve. Thus, a critical consideration in deciding whether to move forward with product development is the potential for internal collaboration and attitude adjustment. This latter factor has to do with fostering an organizational culture that is client-driven and entrepreneurial. The shift to such a culture will absorb much of the organization’s resources. To ensure that it has adequate capacity to undertake new product development, the MFI must have a number of systems in place:

- **Delivery Channels**—physical infrastructure (such as branch offices) and channels of communication to market the product to the target customer groups;
- **MIS**—accounting, loan monitoring, and other back office systems to track the disbursements and collections, as well as to monitor portfolio performance; and
- **Human Resources**—training facilities and incentive systems to implement new products.

The MFI must reassess these systems during the *pilot testing* phase to decide if it can successfully commercialize the product or if it must first create the organizational capacity to foster innovation. Pilot testing involves extensive consultation both with borrowers to refine the product and with MFI staff to determine their readiness for change. The potential outcomes of the pilot test phase are summarized using the No/Go decision model seen in Table 1.

Table 1: Outcomes of Pilot Test

Option	Conclusions	Actions
NO	Market demand insufficient	Generate new product ideas/refinements
	Institutional resistance strong	Build organizational support for expanded product line
GO	<ul style="list-style-type: none"> • Prototype well received • Positive institutional evaluation 	Proceed with full commercialization

⁵² Ibid.

CHAPTER FOUR

PRODUCT LAUNCH AND COMMERCIALIZATION

For successful flight, great ideas need landing gear as well as wings. Philip Kotler.⁵³

Once the MFI has determined that market demand is attractive and has mobilized internal resources to move forward, the commercialization phase begins. The MFI will announce the launch of the new product and slowly scale up until it has fully integrated the product line. The commercialization phase—the scale up phase when the product is introduced throughout the branch network—is the true test of whether the new product is client-centered. It is also a test of the organization’s preparedness. Most of the bankers surveyed identified implementation (launch and commercialization) as the most difficult phase of new product development. Preparedness for product launch is as key to market success as the systematic testing that determined the product’s potential viability. This chapter will discuss the process of commercializing a new product, focusing on the relevant external (market) and internal (organizational) issues involved in fully integrating a new product into the MFI’s existing mix.

Product launch and commercialization steps:

- Finalize the product, including component parts;
- Develop a promotional strategy;
- Determine the competitive positioning and distribution channels;
- Establish staff training courses and incentive schemes; and
- Shore up technological and communication systems.

DEVELOPING A MARKETING STRATEGY

The MFI must make strategic decisions about packaging and promoting its new product to deliver it through its branch network. The commercialization strategy revolves around the four marketing Ps of the new product, whose features will be refined as it evolves through its life cycle, as the institution matures, and as client needs change. Although the four Ps of marketing are defined from the seller’s perspective, they are designed to deliver benefits to the customer and can be thought about in relation to the four consumer Cs, as illustrated in the box.⁵⁴ With this perspective in mind, the product team can translate the pilot test results into a commercially viable product.

Criteria for developing a market strategy:

4 Ps	4 Cs
Product	Customer needs and wants
Price	Costs* to the consumer
Positioning	Convenience
Promotion	Communication

* Includes opportunity and transaction costs.

⁵³ Kotler, *Marketing Management*, 306.

Product Design

The product development team must translate the research into a product that will meet customer needs. Product design takes into account the component parts of the product.

- **Core Product.** At a minimum, a product must offer the main benefits the customer expects from the product or fulfill a need. For loan products, the core is financing that matches the fluctuating cash flow needs of the microenterprise. For savings products, the core involves security, liquidity, and returns. For insurance, the core is a financial cushion during difficult times.

Product design involves:

- Core product—the main benefits the customer expects from the product;
- Actual product—the specific terms and other features that directly meet customer needs; and
- Augmented product—ancillary services, which determine the accessibility of the product.

Although these points seem obvious, many MFIs offer loans without flexible terms to match seasonality; savings products that offer only limited withdrawals or paltry returns; and insurance products with such cumbersome claims procedures that financing arrives after the crisis has passed. It is critical that the product fundamentals are in line prior to packaging or augmenting it with related services.

- **Actual Product.** The actual product includes the specific terms, interest rates, eligibility requirements, packaging, and other features that directly meet customer needs. In microfinance, packaging includes the length and clarity of the loan application as well as the color of the savings passbook—and clients typically have strong preferences. When designing its saving product, BRI drew on the experience of Bank of Boston in its introduction of a credit card for a Latino market segment. BRI paid attention to its customers preferences for the color of their passbook, just as Bank of Boston had offered their Latino borrowers a credit card with Brazilian soccer star Pele’s photograph on it, which “sold like wild fire.”⁵⁵ Inexpensive details can influence demand.
- **Augmented Product.** The augmented product includes such ancillary services as the application turnaround time, hours of operation, and waiting room facilities, which determine the accessibility of the product. How the customer receives the product, including how it is delivered and serviced, is critical to ensure market acceptance. Loan turnaround time can be a competitive advantage, as the Association for Social Advancement (ASA) in Bangladesh has demonstrated. ASA has a limited choice of products but offers quick service targeted at clients who place a high priority on

⁵⁴ Robert Lautenborn, “New Marketing Litany: 4 P’s Passe; C-Words Take Over,” *Advertising Age*, 1 October 1990, 26.

⁵⁵ Bohl, interview.

convenience.⁵⁶ Customer service—such as loan officer friendliness and accessibility before and after loan closing—is another important aspect of the augmented product.

Moreover, the total product must balance customer preferences with an MFI’s financial, physical, and cultural capacity. For example, a customer’s need for financial return or liquidity must be balanced with an institution’s desire to achieve self-sufficiency or manage risk.

Price

Determining price is an integral part of product design. Different products will have distinct costs associated with delivering them, so differential pricing is key to the financial sustainability of the MFI. Moreover, customers will be more price-sensitive to certain products than to others. Understanding cost differentials and recognizing customer sensitivities allows the MFI to price its products more effectively and make deliberate decisions about which market segments it can reach. The main components for pricing are cost recovery and competitive considerations.

Pricing a product takes into account:

- Cost of capital,
- Cost of product delivery,
- Contribution to the fixed cost of an institution, and
- Competitor’s pricing.

Cost Recovery

When pricing a product to recover costs, an MFI should take into consideration all related expenses, over and above the cost of capital, incurred to deliver a product. For example, savings mobilization introduces new costs including stepped-up security at the branch level, lotteries, which are a common form of promotion, and regulatory compliance. Credit products with more flexible repayment schedules may require system upgrades to track activity. All new product introductions will involve training costs, which not only include direct costs (such as instructor salary and class materials) but also the *opportunity costs* of not having loan officers deployed while in class. Generally, if the MFI is striving for financial self-sufficiency, it must cover its most significant cost: salaries to loan officers and other MFI staff. In its initial product offering, Fundusz Mikro offered a discount if the borrower chose a group loan over the more popular individual credit. The interest rate charged on the loan would drop as the group size increased, reflecting the need for the start-up company to achieve volume and increase staff productivity to cover its *fixed costs*.⁵⁷

⁵⁶ Shafiqul Haque Choudhury, “Achieving Microfinance Market Penetration,” (presentation at the fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997). ASA field officers go to clients’ homes to collect loan payments.

⁵⁷ Fundusz Mikro adjusted the price differential until 80 percent of its borrowers were in groups. Rosalind Copisarow, “New Product Development,” (presentation at the fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997).

The MFI must decide what portion of the *fixed costs* of operations it will try to recover in pricing a particular product.⁵⁸ In other words, the MFI must decide the *spread* it will charge—the difference between the price of its product and the cost of capital—so that each loan sale will contribute to the organization’s *fixed costs*. The *break-even* point determines the volume of sales a product must generate to cover the fixed costs of delivering a product, once estimates of the delinquency costs and the average loan size have been made. Any sale over the *break-even* volume is profit. The *break-even* formula, a very basic version of which is provided below, also shows how changes in price impact the MFI’s ability to recover its costs.

$$\text{Break-Even Sales Volume} = \frac{\text{Allocated Fixed Costs} \times (1 + \text{delinquency rate})^*}{\text{Spread (price - cost of capital)} \times \text{average loan size}^*}$$

* Estimated

A simple way to allocate *fixed costs* to estimate a *break-even* point for a new product is to estimate what proportion of staff efforts will be dedicated to this new offering. Since salaries are one of the highest expenses in microfinance, prorating *fixed costs* by the anticipated level of staff effort would be a good approximation for what kind of loan volume this new product must generate to break even. An MFI may limit what portion of its expenses it tries to recover in a given product so as not to make the price prohibitively high to a given market. Nonetheless, the MFI must identify alternative revenue streams to cover any indirect costs not factored into the new product price.

Competitive Considerations

Price communicates messages to both customers and competitors regarding an MFI’s marketing and positioning strategy. High prices are often associated with better quality, superior customer service, and professionalism. A transforming MFI may decide to price its products in the higher ranges to give the impression that it is a sophisticated financial institution. Cajas Municipales offers rates on its deposits that are one- to two-tenths of a percent higher than those offered at local banks, in part to “develop a strong and professional public image to build confidence among prospective clients.”⁵⁹ Price also communicates an MFI’s competitive strategy in relation to others in the market. ASA prices its products slightly above its Bangladeshi competitors, Grameen and BRAC, but customers are willing to pay a premium for the convenient, quick service. Clients view this surcharge as the price they pay for the privilege of circumventing the group process.⁶⁰

⁵⁸ *Fixed costs* are incurred independent of sales volume. *Variable costs* relate directly to the production of a given product, and change with the amount produced.

⁵⁹ Jill Burnett, *Cajas Municipales of Peru: An Organizational Review*, Calmeadow, (forthcoming), 16.

⁶⁰ Pankaj S. Jain, *Managing Fast Expansion of Micro-credit Programs: The Lessons from ASA* (Dhaka, Bangladesh: Association for Social Advancement, 1997), 2.

Promotion

Promotions are important components of new product implementation because they are the primary means of communicating its features and building consumer awareness. BRI in Indonesia, BancoSol in Bolivia, and Banco Caja Social in Colombia all plan periodic noncash lotteries or raffles that have been effective in generating deposits. The product team will need to develop a promotions plan that communicates the benefits of the product to the *target market*.

Understanding promotion:⁶¹

If the circus is coming to town and you paint a sign saying, "Circus coming to the Fairground Saturday," that's **advertising**;

If you put the sign on the back of an elephant and walk him into town, that's **promotion**;

And if the elephant walks through the Mayor's flower bed, that's **publicity**;

And if you can get the Mayor to laugh about it, that's **public relations**.

Promotional activity can include advertising, publicity, and public relations and should be appropriate to the *target market*. Print advertising is pointless if the majority of the *target market* is illiterate or speaks a local dialect. Some MFIs rely on colorful posters that graphically depict their product, or on nonwritten forms of advertising, such as radio broadcasts. Both BRI and Banco Caja Social use an easily identifiable trademark or product symbol on all their brochures and promotional materials. Also, they give their savings products names that suggest specific customer needs, such as liquidity, return, or security.⁶²

Place

The final consideration involves how the product is delivered to the customer. Place takes on special significance since access to financial services, more than price, is the main benefit an MFI provides its clients. In marketing terms, place refers both to the physical location (or distribution) of the product, and to its positioning in the market, relative to competing products.

Distribution

The physical distribution system for most MFIs is its branch network, which may need to be upgraded to incorporate new products. BancoSol added safety vaults to its branches and

⁶¹ Excerpted from Hal Goetsch, *Developing, Implementing, and Managing an Effective Marketing Plan*, (Chicago, Illinois: NTC Business Books, 1993), 97–98.

⁶² CGAP Working Group, Financial Instrument, Savings Mobilization, *Comparative Analysis of Savings Mobilization Strategies: Case Study of Bank Rakyat Indonesia*, forthcoming, 13.

purchased fire and theft insurance in preparation for its savings mobilization effort because security was identified as a critical product feature by potential *customers* during market research. Alternatively, entirely new distribution systems may have to be developed, which is what BRI did for its move down market to introduce a small-scale version of its KUPEDDES loan product for lesser amounts. Unlike its regular product, the small-scale KUPEDDES loan allowed less formal collateral (than land and salary), but demanded daily (versus monthly) loan payments. To accommodate the customer's need for convenience and to provide extra guarantees for its new, less-secured loans, BRI goes to the borrower's place of business (usually the marketplace) or home to complete the loan application.

Based on costs and risk, it may be prudent for an MFI to enter into a partnership with an existing organization to provide access for its new product. Swaziland Business Trust partnered with local banks to locate its debit card machines in their branches to provide a safe place for customers to carry out electronic transactions. Similarly, conventional banks have partnered with supermarkets to deliver new products as they move down-market, creating economical, makeshift branches within the stores. Both conventional banks and MFIs have used partnerships to streamline the administrative requirements of delivering products and to share risk. When they wanted to offer an insurance product, FINCA Uganda and SEWA Bank in India partnered with insurance companies—instead of providing the service directly to their clients—because they did not have the capacity to bear the risk. FINCA modified its loan application to sell life insurance (under its partner's name) to its village bank members.

Position

The other aspect of product placement is its competitive position in the market. The MFI must decide if it will position itself as a full service intermediary where clients can have the convenience of one-stop shopping or the efficient provider of an undifferentiated product line, like ASA in Bangladesh. ASA's chief executive describes his organization as a "McDonald's-like operation: limited (standardized), simple choice, but quick service."⁶³ This decision goes beyond the design of the specific product to include how the institution wants to define itself. For example, some MFIs define themselves by the breadth of their reach, preferring to reach many clients with one or two products rather than fewer people with a variety of products.

BUILDING INSTITUTIONAL CAPACITY

Systems and procedures must be in place throughout the MFI's network to manage the commercialization of the product, once a marketing strategy has been developed. Building the necessary institutional capacity involves bringing about attitudinal shifts in staff and upgrades to critical office systems.

Steps of institutional capacity building:

- *Human Resource Development:* buy-in, training (specialized vs. generalist), and incentives.
- *System Buildup:* management information systems, quality control, loan use verification, and communications.

⁶³ Choudhury, "Achieving Microfinance Market Penetration."

Human Resources

The most critical factor to successful implementation is preparing and motivating staff who must maintain the momentum of the product development process and ensure internal adoption. Training and incentives are key to building institutional buy-in. This staff buy-in will take place throughout the development process through continual information updates and requests for feedback.

Training

As an MFI expands its product line, it must build up its training capacity to successfully incorporate the new product. An established training program helps ensure product consistency and quality control. The MFI must determine the capability of the loan officers to handle the additional loan products. Factors such as staff education level, attitude, and current workload must be analyzed to determine what type of training is most appropriate. For example, if loan officers are of a junior level with limited secondary education, introducing sophisticated products may involve a tailored training program.

The MFI must also take into consideration the character of the staff, looking at how entrepreneurial it is and how willing to adapt to change. Fundusz Mikro trains its credit officers in client interaction so they can assert authority while at the same time being friendly and helpful. Nonetheless, Fundusz Mikro had senior staff conduct the initial implementation because junior officers “couldn’t deal with continual product adjustments” required after the initial product rollout.⁶⁴ Some MFIs, such as ASA in Bangladesh, offer little formal training to their staff, instead having new hires “shadow” a more senior loan officer on the job for a week. MFIs typically provide staff with detailed manuals describing the specifics of different products and procedures, particularly when they train their loan officers as generalists versed in all product offerings.

In deciding which staff to train, an institution must analyze the benefits of employing specialized versus generalist loan officers. Some of the institutions interviewed felt strongly that credit officers should be able to

Advantages of generalists vs. specialized credit officers:

Generalists

Leverage underutilized capacity.
One-stop shopping.
Avoid hierarchy.

Specialists

Build client relationships.
Dedicated expertise.
Efficiency of specialization.

offer the full menu of product options to the clients with whom they interact. Banco Solidario of Ecuador began by training generalists because it did not feel it was cost-effective to have a specialized credit officer delivering the small loan volume of new products. In addition to this productivity rationale, generalist credit officers allow an MFI to serve the needs of the microenterprise as it grows and not transfer portfolio among credit officers. Nonetheless,

⁶⁴ Copisarow, interview.

once the volume for a new product builds up, MFIs may assign one dedicated credit officer to specialize in that particular offering.

Specializing seems to make sense when there is a unique type of underwriting or a specific *target market* associated with the product. BancoSol chose product specialists for its individual loan products because underwriting involved making such calculations as ratio analysis and cash flow and profitability projections that were not done for solidarity group lending, which involved a more qualitative approach. Also, the *target market* for individual loan products included sophisticated borrowers with a track record, and was considered a separate niche. If specialized expertise is required, outsiders can be brought in to conduct the training or even to sell the product if the skills needed are beyond the capacity of the loan officers.

Some MFIs have shied away from specialized training for fear of creating an elite class of credit officers who receive additional training, higher salaries, and more management attention during the introduction of new products.⁶⁵ An MFI must compensate for the disproportionate attention specialists receive in order to prevent internal resentment. Some MFIs, like FINCA Uganda and BRI, use group-based and individual rewards to maintain a collaborative spirit among staff to achieve overall institutional goals.

Incentives

An MFI can encourage an attitude shift through appropriately structured incentives, targeting the specific outcomes the institution hopes to encourage. Well-designed incentives will institutionalize training and help senior management guide the focus of operations. The characteristics of effective incentives to promote new product development are as follows⁶⁶:

Effective incentives are:

- Performance-based and multiple,
- Weighted and time-limited,
- Straightforward and reinforcing,
- Balanced between individual and collective goals, and
- Aligned with institutional goals.

- *Performance-based, multiple* incentives reward staff for outcomes and reinforce institutional goals, such as the growth and quality of portfolio. However, an incentive structure with too singular a focus can have disastrous consequences, as illustrated by CorpoSol's volume-based goals that had inadequate control over delinquency.⁶⁷
- *Weighted, time-limited* reward schemes allow an institution to readjust its incentives based on its priorities for a particular stage of growth or marketing strategy. To push a

⁶⁵ Internal friction can also arise if clients graduate from one specialist to another, especially if incentives are involved. Churchill, interview.

⁶⁶ For a more detailed discussion on incentives, refer to "Monetary Incentive Schemes for Staff," GEMINI Technical Note 5, Katherine Stearns, ACCION International, April 1993.

⁶⁷ ABA's volume incentives are in terms of loan number rather than size, to avoid loan creep to larger amounts. Nabil El Shami, "Staff Incentive Schemes" (presentation at the fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997).

new offering, the MFI may institute product-specific incentives with explicit time frames or loan volume goals so that staff do not get angry when inducements are modified or taken away.

- *Straightforward, reinforcing* reward programs make some of the most effective incentives. If an incentive scheme is too complex, the institution's priorities can be diluted, or worse, misunderstood. Intangible benefits, such as recognition from senior management and colleagues, provide a reinforcing complement to financial incentives in support of a new product.⁶⁸ This encouragement can come from the product champion throughout the initial commercialization and can help ensure that the new product is not forgotten among the more familiar offerings.
- *Individual authority*: Delegating loan approval authority to the credit officer (up to certain limits) can serve as an incentive in and of itself. In addition to the implied respect for the loan officer's judgment and ability, delegated authority encourages efficiency and responsiveness to client needs because it makes loan officers accountable for the success of the relationship.
- *Group-based/branch specific*: Some financial institutions offer group-based inducements to preserve camaraderie among staff and encourage treating each branch unit as a *profit center*, while rewarding employee contributions. To encourage savings mobilization, MFIs such as Bancosol and BRI have increased the cost of funds borrowed from headquarters (the *transfer price* of capital) to encourage branches to seek relatively cheaper capital sources from depositors. The Get Ahead Foundation in South Africa offers its branch managers a collective incentive based on a percentage of the revenues generated by the loan officers who report directly to them. Get Ahead also asked its branch managers to maintain their own small portfolio of *stokvels* (borrower groups), on which they earn a commission, to give them a "better understanding [of] the challenges faced by loan officers."⁶⁹

Systems Buildup

In preparing to commercialize a product, an MFI must develop systems to successfully support expanding product lines. Although most MFIs do not have the resources to thoroughly and immediately upgrade their systems, it is crucial that they develop a plan to incrementally build capacity to implement and manage a commercialized new product. Some of the more critical operational systems include MIS, quality control, loan use verification, and communications.

- **Management Information Systems (MIS)**. An MFI's full MIS package—including bookkeeping, portfolio tracking, budgeting, and cost accounting—must accommodate the

⁶⁸ Schall, interview.

⁶⁹ *Stokvels* are traditional saving societies in South Africa. Craig Churchill, "The Shifting Paradigm in Microfinance—the Case of Get Ahead's Stokvel Lending Programme," in *Small Enterprise Development*, Vol. 8, No. 1 (London: Intermediate Technology Publications, March 1997), 36.

new product data, ideally at a branch level. Establishing a cost center (a system to account for costs within operational and support departments or units) to apply costs accurately to each product helps ensure effective pricing and cost control. Although sophisticated *activity-based costing* systems may be beyond an MFI's resources, a certain level of tracking is within its capacity. At a minimum, loan officers should track the hours spent on different products on time sheets because salaries represent one of the largest costs for most MFIs.

- **Quality Control.** Accountability and quality control systems must be in place for scaled-up product implementation. Oversight can come in the form of portfolio reviews, performance evaluations, and periodic status checks or staff meetings. Detailed credit policy and operational manuals are systems that many MFIs have developed to help maintain quality control for new product implementation. Sometimes new products bring with them new forms of accountability from regulatory authorities. BancoSol needed to conduct daily cash reconciliations, trial balances, and audits, all of which were not required for loan management, to comply with the dictates for savings management issued by the Superintendency of Bolivia.⁷⁰
- **Loan Use Verification.** Most conventional financial institutions establish loan use verification procedures as part of their quality control procedures, but few MFIs monitor the use of loan proceeds. BRI “accepts the fact that a portion of the loan funds may move temporarily in response to short-term needs to the use that offers the highest return.”⁷¹ Part of product development is tailoring new offerings to these different needs. Whether product diversification requires more diligent loan verification is an open question, but most MFIs interviewed believed that the cost was not justified.
- **Communications.** In preparation for new product development, an MFI must establish adequate systems of communication between headquarters and branches, between management and staff, and between *customers* and the MFI. For example, an MFI may require new phone systems to establish an internal computer network so that a loan can be tracked regardless of the branch in which it originated. In addition, client communication systems must be in place to insure timely feedback. BURO Tangail set up customer Consultative Groups “to better understand members’ needs, problems, opportunities, and constraints (economic and social). Members also develop a clear understanding of the organization, its policies, opportunities and constraints (financial and operational).”⁷² Although many MFIs use client visits or technical assistance as the main means of dialogue with *customers*, communication does not have to be staff-intensive. The credit officers of Cajas Municipales do not have regular contact with clients once the loan is booked, unless the client requests a meeting or if a repayment problem arises. Instead, familiarity with clients is derived through credit performance and the portfolio reports prepared daily for each credit officer.⁷³

⁷⁰ Gómez, “Banco Solidario, S.A.,” 13.

⁷¹ BRI Unit Products, company brochure, 1996, 4.

⁷² Wright, “Beyond Basic Credit and Savings,” 12.

⁷³ Burnett, *Cajas Municipales of Peru*, 40–41.

Conclusion

This chapter outlined the steps to implement new products once they have successfully passed the pilot test phase. Using the four Ps as a framework, the MFI develops a marketing plan to sell the product and then analyzes the internal systems necessary for commercialization. Returning to the No/Go decision model (Table 1), the MFI determines if implementation will overwhelm its capacity to manage the product or introduce unnecessary risk. If so, the MFI makes a strategic decision to determine if the expanded product line will pay for the investment in capacity buildup. With sufficient capacity, the MFI can incorporate the new product into its line of offerings. The concluding chapter discusses how the MFI integrates the development process into the organization so that product refinement becomes a part of the institution's modus operandi.

CHAPTER FIVE

KEY PRODUCT DEVELOPMENT SUCCESS FACTORS

Profit is the payment you get when you take advantage of change.
Joseph Schumpeter, economist.

Key factors for new product development:

- Acceptance of new products depends on understanding the market, honing product features to respond to customers, and mobilizing institutional resources.
- Dampened demand can result from misinterpretation of market conditions, flaws in product features, and a lack of institutional commitment.
- Managing product growth and refinement throughout the product life cycle challenges an MFI to retain dynamic positioning in the market.
- Successful MFIs are client-centered, entrepreneurial, and institutionally prepared.

Taking advantage of changes in the marketplace is at the core of new product development. As competition and customer sophistication increase, product development provides an opportunity to better serve market demands. However, identifying the need and the opportunity is simply the first step in a methodical process of designing client-centered financial instruments. Even the most careful planning will not prevent the inevitable problems that arise when dealing with dynamic parties like the market, the microfinance institution itself, and competitor MFIs. Nonetheless, an MFI must treat crisis as an opportunity to institute change, to loosen institutional resistance, and to mobilize staff to rally around a cause—namely, the client. As Copisarow explains:

The key to successfully introducing new products is having the appropriate mentality: the expectation that there will be errors; the readiness to hover closely and respond immediately to problems as they arise. It's not the number of mistakes, but how quickly one is able to recognize them and adjust accordingly. Most people don't expect things to be a mistake.⁷⁴

A product's acceptance in the marketplace is as much about good timing as it is about systematic strategy.⁷⁵ This chapter examines factors that contribute to a product's success or failure, highlights the warning signals, and discusses how an MFI can avoid the common pitfalls.

⁷⁴ Copisarow, interview.

⁷⁵ Robert J. Thomas, *New Product Development: Managing and Forecasting for Strategic Success* (New York: John Wiley and Sons, Inc., 1993), 7. Illustratively, the Get Ahead Foundation completely revamped its loan product prior to the momentous 1994 elections in South Africa, the first multiracial democratic vote in that country's history. The new program was marketed as the "New Stokvel Programme for the new South Africa." Churchill, "The Shifting Paradigm in Microfinance," 39.

FACTORS CONTRIBUTING TO (UN)SUCCESSFUL PRODUCT DEVELOPMENT

There are no magic formulas for successful new product development save a methodical process of trial and error. Most factors that breed success or failure have to do with the organization launching the product rather than the external actors in the marketplace or the product itself.

Why New Products Succeed

- **Market Factors.** Just as changes in consumer tastes or environmental factors can hinder a product's acceptance, they can also spell its success. Favorable competitive environments can allow new products to blossom, as has been the case in Bangladesh, where competition has forced MFIs to find creative ways to establish a firm customer base and serve their clients' needs. A different market factor prompted acceptance of Fundusz Mikro's new solidarity group product offering in Poland, which was emerging out of decades of commercial controls. "No one could bear that their neighbor should get more than they deserve," so ultimately there was fertile soil where the enforcement mechanisms inherent in solidarity group methodologies could take root.⁷⁶
- **Product Factors.** Products that aim to meet specific market needs should be widely adopted. In some cases, a product may successfully predict, rather than respond to, market demand. For example, SEWA's clients were distrustful of the idea of insurance because of previous negative market interactions, despite the fact that the disasters these products were supposed to cushion were a very real part of the women's lives. After an intensive education campaign, the clients embraced the insurance products SEWA designed for conventional purposes, such as disaster relief and disability, as well as the ones tailored to the unique needs of its female clients, such as unintended pregnancy.⁷⁷
- **Institutional Factors.** When products are well aligned with an organization's integral strengths (*core competencies*) and its organizational mission, support is straightforward. But even if these factors are not perfectly aligned, top management support will often be sufficient to marshal an organization's resources for successful implementation. BancoSol's savings mobilization effort improved once there was a clear mandate from the board and senior management that deposits were critical to the organization's long-term financial viability.⁷⁸ In other cases, it may be the development process itself that will mobilize the organization for change. Fundusz Mikro's early success is due, in part, to its painstaking diligence with regard to market research and continual product refinement, which resulted in a product mix that generated sustainable demand.

⁷⁶ Copisarow, "New Product Development."

⁷⁷ Vyas, interview. This post- and pre-natal insurance product has grown in popularity.

⁷⁸ Gómez, "Banco Solidario, S.A.," 32.

Why New Products Fail

- **Market Factors.** Actual market demand may be lower than anticipated because of changes in environmental factors or consumer taste. Sometimes, demand will also be captured by competition, which may respond with an imitation product between the pilot phase and commercialization. Increased competition can also cap prices and limit an MFI's return. Margins may also shrink because of higher than anticipated costs.
- **Product Factors.** Weak market acceptance of new products can result if the products are not distinct or innovative enough to capture consumer attention or if their features are not attractive. Such was the case when Fundusz Mikro first launched its solidarity group product and encountered paltry demand. Customers had to be encouraged to join groups through attractive product pricing. In addition, a new offering can cannibalize existing products.
- **Institutional Factors.** Many failures resulting from organizational factors are caused by poor delivery, which can result from mismanagement or simply insufficient resources for effective implementation. Staff expertise, systems, or physical infrastructure can be overwhelmed if the product is a market success. Accountable leadership is critical during the scale-up, as new products can atrophy if no one claims or is assigned responsibility for the commercialization.

The most common source of institutional product failure is succumbing to internal resistance to change. No matter how much coaxing senior management undertakes, it is still incumbent on the line staff to sell the product. The inability of an organization to rally around a product may be caused by a stodgy mentality, poorly designed incentive systems, or the fact that the product's main purpose or *target market* is outside the *core competency* of the organization. This last point is particularly relevant for donor-driven product launches, which may not fit an MFI's area of expertise. For example, the U.S. Agency for International Development (AID) imposed an individual loan product on FINCA's Salvadorian affiliate, Centro Apoyo a la Microempresa (CAM), which—according to FINCA founder John Hatch—effectively created a two-tiered system: “one for the village bankers and one for the less poor.” The result of being forced to adopt this unwanted “neglected child” was that CAM staff “developed an ethos of moving money rather than collecting it,” resulting in severe delinquency problems.⁷⁹ Even if the MFI hires the relevant expertise, the mission drift an organization can suffer by taking on products too far from its defining purpose can have a demoralizing effect on the staff and severely hinder new product implementation.

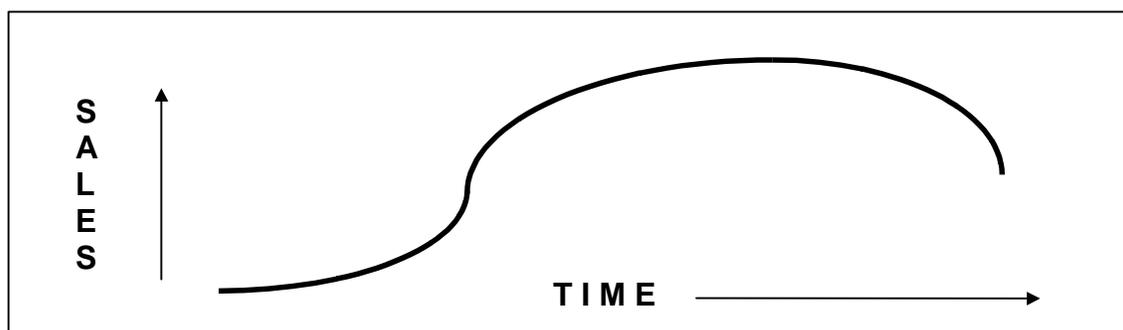
PRODUCT LIFE CYCLE

Product development is a process that evolves with the organization's growth and the product's maturity. Part of product success involves continual readjustment and fine-tuning

⁷⁹ John Hatch, interview by author, FINCA International, Washington, D.C., 17 September 1997.

in the face of changes in market demand and the natural aging of a product as it evolves through its life cycle. Financial service products have life cycles with distinct phases (introduction, growth, and market penetration), that correspond to the passage of time and increases in sales (Figure 2).

Figure 2: Product Life Cycle



Characteristics	Phases		
	<i>Introduction</i>	<i>Growth</i>	<i>Market Penetration</i>
Sales	low	easy money	peak
Costs	high	average	low
Profits	negative	break-even	positive
Customers	early adopters	target market	new markets
Marketing Objective	product awareness	market share	profit maximization
Product	standard/basic	ancillary features	refinements/innovation

- **Introduction.** Product launch is marked by initial low sales and high start-up costs, mostly because of the heavy promotion needed to build customer awareness and entice demand. This staff-intensive period should be brief if the pilot test was effective because early adopters should already be familiar with the product. The main challenge for the institution at this phase is to make sure the systems and staff are prepared for the subsequent growth phase, which will likely put a strain on the organization.
- **Growth.** This scale-up phase is marked by increasing sales, average cost reduction as usage spreads, and the first signs of profitability. The MFI should be able to “quickly gain the accounts of people living or working nearby the bank offices” or what is often known as the “easy money.”⁸⁰ The MFI tweaks product features as it monitors demand. In addition to the systems buildup, the MFI will need to expand its existing distribution network to reach the wider service area that market penetration will require.
- **Market Penetration.** This phase requires a more deliberate marketing effort to maintain volume and reduce cost per client to maximize profits. The product is now fully incorporated as a regular part of the line, and the MFI is identifying cross-selling

⁸⁰ Robinson, “Introducing Savings Mobilization in Microfinance Programs,” 15.

opportunities with other products. At this point, competition may enter because of the track record the product has developed. The MFI must develop a systematic approach to identify potential customers, implement an incentive system that rewards staff for new client accounts, create “effective methods for intra-bank communication,” conduct additional market research, and generate additional publicity.⁸¹ The process of product development repeats itself, either with the same product in new segments (breadth) or new products in existing target markets (depth), as an MFI penetrates new markets.

LESSONS FOR SUCCESSFUL PRODUCT DEVELOPMENT

The top ten lessons for successful product development (Table 2) illustrate an MFI that is client-centered, entrepreneurial, and institutionally resilient. These factors are mutually reinforcing. A client-centered focus requires an organizational culture that is entrepreneurial and sensitive to opportunities. To encourage risk-taking, the MFI must delegate authority to enable staff to respond to evolving client needs. The MFI must also establish informal communication systems and flatten the hierarchy to allow information to flow freely. A simple, flexible organizational structure allows an institution to adapt to changing conditions quickly and take advantage of the benefits competition can bring to the organization and to the client.

Table 2: Top 10 Lessons for Successful Product Development

<ol style="list-style-type: none"> 1. Solicit client feedback throughout the process to continually refine the product. 2. Expect problems to arise along the way. 3. Generate institutional buy-in early and continually throughout the product development process. 4. Test the product in actual market settings and expand slowly. 5. Make realistic cost revenue projections to prepare for the financial impact of adding another product. 6. Make sure systems have sufficient capacity and flexibility to manage and track new products. 7. Provide appropriate training and incentives to staff to ensure effective implementation. 8. Cancel the project if external or internal conditions are not conducive to new products. 9. Identify a product champion who will maintain momentum throughout the development process. 10. Create a client-centered institution.
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⁸¹ Ibid.

Competition will inevitably lead to the product innovation that will help revolutionize the field of microfinance, allowing it to reach the scale and sustainability that will allow the evolving industry to make a positive impact in the lives of the world's disenfranchised.

This evolution is wonderful: competition is a key evolution in changing attitude from the poor that need to be helped to a market that needs to be served. [I]n the first case, just the presence is enough. But in a market, commitment means how long does it take to process a loan, how long are the lines at the cashier. . . . Ultimately, the 'customer to be served' is the highest form of respect.⁸²

Ideally, the product development process should be part of the organization's operations. Truly client-driven organizations continually reexamine their services and make refinements aimed at seizing opportunities, satisfying customers, and enhancing profitability. The most successful development and launch of a new product typically occurs when the process is instigated in anticipation of market changes rather than in response to a crisis. Adjusting to a changing, increasingly competitive environment spawns new innovation. MFIs that are poised to meet these dynamic forces will be able to take advantage of them. Those that resist will be swept away in the wake of a new, market-driven microfinance industry.

⁸² Michael Chu, "Competition in Microfinance: Markets, Products, and Staff," (presentation at the fifth annual conference of the MicroFinance Network, Alexandria, Egypt, 21 October 1997).

ANNEX A

RESEARCH BACKGROUND

SURVEY OF FINANCIAL INSTITUTIONS

Although some MFIs have undertaken new product development, the process they undergo frequently has not been systematic or methodical. Accordingly, this technical note focused its research on analyzing and documenting the product development practices of conventional financial institutions. Although these formal companies typically have many more resources to devote to research and development and to marketing, there are applicable lessons for MFIs. In both industrialized and developing markets, institutions in a dynamic and increasingly competitive marketplace must spend money (well) to make money. Below is a description of the types of institutions consulted in developing this technical note and the rationale for interviewing them.

Conventional Banks

Leading commercial banks were tapped for their sophisticated knowledge of and experience with new product development. Many U.S. banks have been moving aggressively down-market with new products to serve the long-neglected small business sector in the face of market¹ and regulatory² pressures. Like MFIs, conventional banks are facing increased competitive threats and are struggling to meet the needs of the small business borrower. The conventional banks interviewed were Citibank, Bank of Boston, Chase Manhattan, Union Bank, America's Trust, and another of the top 10 largest national banks that asked to remain anonymous. Included in those interviewed are representatives who have worked for banks based in Latin America or have clients there as a result of aggressive expansion into this continent. (See list of interviews below.)

Hybrid Financial Institutions

The term "hybrid" describes the dual social and financial goals that U.S.-based community development financial institutions (CDFIs) pursue. Though most of the CDFIs interviewed are considerably larger than typical MFIs, these hybrids are closer in motivation and stage of development to MFIs than are the conventional banks. Among the CDFIs that were very generous with their time and information were Southshore Bank (Illinois), Self-Help Credit Union (North Carolina), the community development bank affiliates at Bank of America (California), Chase (New York), and First Community Bank (Massachusetts). Those surveyed (mostly via telephone and e-mail conversations) typically were senior credit officers or portfolio managers, overseeing a staff of loan officers or part of a dedicated marketing or research and development division focused exclusively on identifying new

¹ U.S. banks have watched their more affluent client base be whittled away by nonbank competitors, including mutual funds, credit card companies, and other nonbank financials.

² The Community Reinvestment Act, passed in 1977, is an U.S. federal law stipulating that regulated financial institutions have an obligation to help meet the credit needs of the local communities in which they are chartered.

product opportunities. The resulting information was then adjusted for the realities facing microfinance institutions in developing country markets.

Microfinance Institutions

A sample of mature MFIs that have recently developed new products were surveyed to tailor the information gathered from conventional financial institutions to the more resource-constrained reality of MFIs. This group of MFIs was chosen based on geographic diversity and the following (new) product categories:

- Client-tailored loan products: lines of credit vs. amortized term loans; debit cards;
- Ancillary financial services: insurance, pensions, factoring, and licensing;
- Individual/group methodologies, i.e., how MFIs that use solidarity groups and village banks deploy individual loans; and
- Voluntary savings:³ the systematic approaches used by MFIs in mobilizing savings exemplify some best practices in new product development.

The MFIs highlighted in this technical note is not fully representative of the diverse new product development activities that have been undertaken in the field. The main criterion used in selecting the MFIs to examine was how systematic they were in developing new products. Strong efforts were made to have as broad a geographic and methodological coverage as possible within the different product categories. Inclusion in the list of MFIs examined should neither be taken as an endorsement of a particular institutional approach, just as exclusion is in no way a repudiation of another.

LIST OF INSTITUTIONS INTERVIEWED OR EXAMINED

This list is organized by category of financial institution, followed by the names of the organizations examined. For the first two categories, the names next to each institution identify the people interviewed who are employed (currently or formerly) by the respective organization. For the last category (microfinance institutions), the list includes MFIs directly contacted, as well as those indirectly examined through transcripts of live presentations and conversations with consultants with in-depth working relationships with these organizations. Any study of an MFI that did not involve an interview with an employee or someone intimately familiar with the organization is listed in *italics*.

³ Savings mobilization is covered more in depth in separate MBP publications dedicated to this topic. Moreover, the macroeconomic, regulatory, and political conditions—in addition to the institutional strength—that must be in place to enable savings mobilization limit the audience of MFIs appropriate for this particular product. Robinson, “Introducing Savings Mobilization in Microfinance Programs,” 2–3.

Conventional Financial Institutions

- Banco Popular de Ecuador and America's Trust Bank: Enrique La Motta, Marketing and Consumer Finance
- Bank of Boston: Melody Bohl, Marketing Manager
- Chase Manhattan: Michael Flemming, Strategic Planning; Elliot Hobbs, Real Estate Lending
- Citibank: Ann Miles, Financial Services; David Davenport, Community Development Finance
- Union Bank: Robert McNeely, Vice President, Community Development Department
- A Top 10 U.S. bank: Anonymous small business lending officer

Community Development Financial Institutions (CDFIs)

- Bank of America, Community Development Bank: Susan Nakata, Vice President Small Business Lending
- Chase Community Development Bank: John Stokes, Vice President, Commercial Lending
- First Community Bank (affiliated with the Bank of Boston): Jeffrey Zinsmeyer, Director of Small Business Lending
- Self-Help Credit Union:
 - Laura Benedict, Director, Community Facilities Financing
 - Kate McKee, Associate Director
 - Mitty Owens, Director, Microlending
 - Bob Schall, Director, Commercial Lending and President, Ventures Fund
- Southshore Bank:
 - Janney Bretz Carpenter, Managing Director, Southshore Advisory Services
 - Leslie Davis, Senior Vice President, Commercial Lending
 - Karen Bowman, Marketing Analyst, Commercial Lending

Microenterprise Finance Institutions

- Alexandria Business Association (ABA) — Egypt: Nabil A. El Shami, Executive Director
- Association for Social Advancement (ASA), Bangladesh: Md. Shafiqal Haque Choudhury, Chief Executive
- Banco del Estado: Bob Christen (Microbanking Advisory Services)
- Banco Solidario, Bolivia: Hermann Krutzfeldt, General Manager; Carlos Castello and Jean Steege (ACCION International)
- Banco Solidario, Ecuador: Cesar Lopez and Lisa Lindsley (ACCION International)
- Bank Rakyat Indonesia (BRI): Jarot Eko Winarno, Manager Product Development; Marguerite Robinson (Harvard Institute for International Development)
- BRAC: Janney Bretz Carpenter (Shorebank Advisory Services)
- Buro Tangail, Bangladesh: Graham Wright (independent consultant)
- Caja de Ahorro y Préstamo, Los Andes, Bolivia: Alex Silva (Profund)
- Cajas Municipales De Ahorros y Créditos (CMAC), Peru: Jill Burnett (Calmeadow); Anja Lepp (IPC)
- Foundation for Integrated Agricultural Management (FIAM, former Freedom From Hunger affiliate), Thailand: Kathleen Stack, Senior Vice President (Freedom From Hunger)
- FINCA Uganda: Michael McCord, Chief of Party; John Hatch, Founder and Research Director (FINCA International); Till Bruett, Manager of Policy Program Development (FINCA International)
- FondoMicro, Dominican Republic: Mario Dávalos, Executive Director
- Fundusz Mikro, Poland: Rosalind Copisarow, Executive Director
- Get Ahead Foundation, South Africa: Craig Churchill (Calmeadow)
- Kenyan Rural Enterprise Program, Kenya: Kimanthi Mutua, Managing Director
- PRODEM, Bolivia: Fernando Romero, President
- SafeSave, Bangladesh: Stuart Rutherford (independent consultant)

- Self-Employed Women's Association (SEWA) Bank, India: Inez Murray (Women's World Banking), Jaysyree Vyas, Managing Director
- Swaziland Business Growth Trust: Don Henry and Eric Nelson (Development Alternatives, Inc.)

ANNEX B
DEFINITION OF TERMS

(Note: These terms appear in *italics* throughout the text.)

Activity-based costing (ABC): An approach to expense management whereby costs are assigned to specific “objects”—typically product, service, or customer—to track cost by business activity.

Break-even: Typically, the volume of sales that covers both the *variable* and *fixed costs* of delivering a product or service. Any sale over and above the break-even volume is profit; conversely, sales volume short of the break-even point will produce losses. The break-even “point” can be expressed in units or in revenue.

Cannibalization: The lost sales of its own products that an institution suffers when it introduces another product in the same market.

Clients: The term used for individuals who purchase an institution’s products or services; it implies a transactional, one-time relationship (as differentiated from “customers”).

Community development financial institutions (CDFIs): U.S. financial organizations that provide access to capital in underserved areas to promote economic development. They have both financial and social goals.

Core competency: Characteristics that differentiate one institution from another or define a specific organizational expertise; core competencies typically (1) are a source of competitive advantage, (2) have a potential breadth of applications, and (3) are difficult for competitors to imitate.¹

Customers: The term used for individuals who purchase an institution’s products or services; it implies a long-term, intimate relationship (as differentiated from “clients”).

First mover advantages: Benefits enjoyed by the first firm entering the market with a new product; it is based on securing key distribution channels and customers and gaining leadership based on an established reputation.

Fixed costs: Those costs that remain constant (or fixed), independent of sales volume. Overhead expenses are part of fixed costs, including rent, utilities, insurance, depreciation, and executive salaries (versus hourly wages for direct labor, which is a *variable cost*).

Focus group: A gathering, typically of six to ten people (often potential customers), who are invited to spend a few hours with an objective moderator to give feedback on a product, service, or organization.

Hurdle rate: Tool used in budgeting capital expenditures that establishes a minimum required rate of return in a discounted cash flow analysis; it is the threshold set by many

¹ C. K. Prahalad and Gary Hamel, “The Core Competence of the Corporation,” *Harvard Business Review* (May-June 1990), 79–91.

institutions against which potential investments are either accepted or rejected. The same hurdle rate is used in the following capital budgeting techniques:

- *Net present value*: The hurdle rate used to discount future cash flows to determine the project's net present value. If NPV (see definition below) is greater than zero, the project is accepted.
- *Internal rate of return*: The hurdle rate compared with the internal rate of return of the investment under consideration. If IRR (see definition below) is greater than the hurdle rate, the project is accepted.

Internal rate of return (IRR): Discount rate at which the present value of future cash flows from a potential investment equals the cost of the investment; in other words, when the net present values of cash outflows (i.e., the cost of undertaking the project) equals the cash inflows (the returns on the investment), the discount rate being used is the IRR. When IRR is greater than the required return—called the *hurdle rate* in capital budgeting—the investment is accepted.

Monoproduct: Fictional word to describe the type of nondifferentiated product most MFIs offer. Although monoproducts can include different price and term structures for clients, they are not tracked separately from the overall portfolio of the institution.

Net present value (NPV): Method of evaluating potential investments whereby the cash outflows (i.e., the cost of undertaking the project) and the cash inflows (the returns on the investment) are discounted using the required return—called the *hurdle rate* in capital budgeting. The NPV of a project compares the discounted future cash inflows against current cash outflows. If NPV is positive, the project is accepted.

New product development: Refers to the introduction of new financial services (such as savings or insurance), new product features (such as loan terms, amortization schedules, and interest rates), and tangible products (such as smart cards).

Opportunity costs: The forgone value of the next best use of the capital and resources taken up by a proposed project.

Parallel product development: Streamlined product development approach whereby different steps of the process occur simultaneously, rather than sequentially.

Pilot testing: The first limited introduction of the new sample product into the market to provide a reality check on the research and refine the prototype.

Primary data: Information collected specifically for a particular project, typically involving external, field-based research.

Profit center: Segment of a business organization—such as a branch or a department—that is accountable for its own return on investments and thus is responsible for producing income (profits) on its own.

Prototype: Also called a “beta” product. A newly designed product representation, or a sample, to be introduced in a limited number of markets/branches during the pilot test.

Sample size: The number of people (or whatever the object of study) involved in a test; a representative subset of the total population being inspected to gain characteristic information about the whole.

Secondary data: Information collected for one purpose, but used for another.

Spread: The price of a loan minus the cost of funds. This spread (or margin) helps offset fixed costs.

Switching costs: The cost incurred in terms of time and direct cash outlays from changing between brands of products or services; the hassle of readjusting to the new product creates an effective “barrier to exit” from a given market.

Target market: The group of customers within the overall potential market on which an institution decides to focus its pursuit.

Transfer price: The amount charged by individual departments or branches within a multi-entity institution on transactions among themselves. This concept is often used when each entity (be it an individual branch or department) is managed as its own *profit center* and therefore must deal with the other internal parts of the organization on an arm’s length (or market) basis.²

Transformed MFIs: MFIs that have transformed into for-profit, regulated, financial institutions.

Variable costs: Those costs that change (or vary) directly with the amount of production, e.g., raw materials or direct labor used to make a product (see *fixed costs*).

² “Arm’s length” is a way of describing transactions that are conducted as though the parties were unrelated in order to avoid possible conflicts of interest.

ANNEX C
PRODUCT DISAGGREGATION

DISAGGREGATION OF PRODUCTS

This annex illustrates how an MFI's *monoproduct* (single multifaceted product) can be separated into distinctive features for analysis. By examining the repayment history and characteristics of current customers by product feature—such as size, price, term, guarantee—the MFI can begin to segment or divide the market to determine, for example, which clients are price sensitive or which prefer individual versus group loans.

As an example, BancoSol in Bolivia offers several different loan products, denominated in the local currency, bolivianos, or U.S. dollars. The bolivianos-denominated products are typically offered for smaller amounts, shorter maturities, and more frequent repayments. A study was done of BancoSol's offerings by disaggregating five different loan products and defining repayment frequency for comparison purposes (Table C-1).

If BancoSol began tracking its portfolio by these hypothetical loan products, it could use this information to refine its offering. For example, perhaps the repeat clients that borrow higher loan amounts have significantly better repayment performance than those that buy the lower denomination products. From a cost point of view, BancoSol should charge these borrowers less, especially if they are price sensitive. In fact, BancoSol, like most MFIs, generally offers more attractive terms to more experienced clients. However, until recently, there were no explicit policies or specifically tailored products that institutionalized this profitable, client-strengthening practice.¹ By separating out products by their different features and examining the portfolio characteristics of each, valuable information can be gleaned about different market segments. In turn, this information can be used in designing a new product under consideration.

¹ Claudio Gonzales-Vega et al., "BancoSol: The Challenge of Growth for Microfinance Organizations," in *Economics and Sociology Occasional Paper*, No. 2345 (Columbus, Ohio: Ohio State University, 1997), 163.

TABLE C-1
LOAN PRODUCTS, BY REPAYMENT FREQUENCY

Product Dimensions^a	currency	Bs	Bs	Bs	\$	\$
Repayment traits	Weeks between repayment	1	2	4	2	4
	Average repayment amount (\$)	4	10	16	39	80
	Average amount outstanding (\$)	34	42	50	338	467
Amount disbursed	Median (\$)	62	72	82	619	825
	Average (\$)	82	93	103	1,031	1,340
Length of term	Median (months)	3	4	6	9	12
	Average (months)	4	5	6	8	17
	Minimum (months)	1	4	4	6	6
	Maximum (months)	7	7	12	12	36
Interest rates	Nominal monthly contractual rate	4.0	4.0	4.0	2.5	2.5
	Flat fees and commissions	2.5	2.5	2.5	1.0	1.0
	Nominal monthly effective rate ^b	6.1	5.6	5.2	3.0	2.9
	Monthly inflation rate	1.1	1.1	1.1	0.4	0.4
	Real monthly effective rate ^b	4.9	4.4	4.0	2.5	2.5

^a Loan products are sorted by *both* the repayment characteristics (measured in weeks) and the currency in which they are denominated (Bolivars [Bs] or U.S. dollars [\$]). Accordingly the five products are (1) Bs-denominated loans with weekly repayment terms; (2) Bs-denominated loans with biweekly repayment terms; (3) Bs-denominated loans with repayment every four weeks; (4) \$-denominated loans with biweekly repayment and (5) \$-denominated loans with repayment every four weeks.

^b Effective rate (internal rates of return) calculated using the median values of the amount disbursed and median rates of return.

Source: Claudio Gonzales-Vega et al., "BancoSol: The Challenge of Growth for Microfinance Organizations" in Economics and Sociology Occasional Paper, No. 2345 (Columbus, Ohio: Ohio State University, 1997), 139.

ANNEX D

CALCULATION OF FINANCIAL MEASURES

CALCULATION OF FINANCIAL MEASURES

This annex describes how basic measures of financial return are calculated. Each of these procedures usually comprise at least an entire chapter in any fundamental corporate finance text; therefore, thorough treatment of these financial analysis principles are beyond the scope of this note.¹ The symbols used in each respective formula are defined when they appear.

The following two formulas touch upon fundamental aspects of evaluating the value of a particular project.

Return on Investment (ROI)

Return on investment (ROI) is a method of comparing the *benefit* of employing capital to fund a particular project to the *cost*. The benefit, or return on the investment, is usually measured by the profits the project will generate. If the ROI is greater than the cost of capital (usually measured as the interest rate, or “r”), then the investment (C_0) should be undertaken. In other words:

ROI = Profit ÷ Investment Costs
If ROI is greater than r, accept the project.
If ROI is less than r, the project is not financially viable
r = required, or *hurdle*, rate of return
 Profit = Project Revenue - C_0
 Investment Costs = C_0

Free Cash Flow (CF)

Rather than look at profit (defined as earnings after all expenses—including interest and taxes—are paid), most financial analysis looks at free cash flow. The basic theory is that many balance sheet items/activities (such as depreciation, deferred taxes, investments in working capital, and fixed assets) impact a firm’s available *cash flow*, although they may not be reflected in its net accounting *profit*. Therefore, cash (rather than book profits) is what is most important to the management and shareholders that have a claim on the organization. For management, negative operating cash flow constrains their flexibility to pursue long-term investments because they cannot fund their growth internally. For shareholders, excess cash flow after long-term investments is what is available for dividend payments, repayment of debt, and repurchase of shares.

¹ These topics are covered in: Stephen A. Ross, Randolph Westerfield, and Bradford D. Jordan, *Fundamentals of Corporate Finance, Fourth Edition* (New York, New York: McGraw-Hill Series in Finance, Insurance and Real Estate, 1997); and Richard A. Brealey and Stewart C. Myers, *Principles of Corporate Finance, Fifth Edition* (New York, New York: McGraw-Hill Series in Finance, 1996).

Basic cash flow analysis adjusts profit figures (more specifically, operating income) by taking into consideration investments in working capital (WC) and fixed assets (property, plant, and equipment, or PPE), including *how* these activities are financed (debt vs. equity). Instead of providing a thorough discussion of how cash flow statements are calculated—a topic worthy of an entire chapter in and of itself—the formula below provides a simplified, straightforward approximation of cash flow.

In summary, the formula starts with net operating earnings, adjusted for taxes, comparing the funds that an organization collects from its customers to the funds that it spends on producing and providing the product or service. The investment in working capital (measured by change in WC) is a function of the institution's credit policies (accounts receivable), payment policies (payables, prepaid expenses, accrued liabilities), and its expected growth in sales (inventories). Finally, the formula considers long-term investments in the form of capital expenditures in property, plant, and equipment (PPE). The change in PPE includes the effect of depreciation. To summarize:

Cash Flow (CF) = EBIT (1- t) - ΔWC - ΔPPE		
EBIT =	Earnings Before Interest and Taxes	t = Tax rate
ΔWC =	change in working capital = Δcurrent assets - Δcurrent liabilities	
ΔPPE =	change in property, plant, and equipment = capital expenditures –depreciation	

The next two measures take into account the time value of money, which is often referred to as the *opportunity cost of capital*.

Time Value of Money

This fundamental principle of finance is based on the notion that money today is worth more than money in the future because funds can be invested and start earning interest immediately. Therefore, the *opportunity cost of capital*—which is also referred to as the *discount rate*—is simply the return forgone by not investing in interest-earning securities. The appropriate discount rate to use depends on the project's riskiness—that is, the likelihood that the cash flows will materialize in the future. Most firms choose a discount rate based on some widely known benchmark—such as the historic rate of return of the U.S. stock market (approximately 10-12 percent)—for projects with moderate degrees of risk and adjust upwards (downward) for more (less) risky investments. The higher the discount rate, the less likely the present value of future cash flows will cover the initial investment, leading the firm to reject the proposed project.

The two most widely used financial decision rules—*present value* and *rates of return*—are based on the opportunity cost of capital when considering an investment:

1. *Net present value rule*: Accept investments that have positive net present values.
2. *Rate of return rule*: Accept investments with rates of return in excess of their opportunity cost of capital.

1. Net Present Value (NPV)

To derive the *net present value (NPV)* of the anticipated revenues generated by a particular investment, one must discount these future cash flows by the opportunity cost of capital. Consider an investment in a new product that generates C_1 cash flow in Year 1, C_2 cash in Year 2, C_3 in Year 3, and so on through Year n when the project stops producing revenues. These *future* cash flows must be discounted by the cost of capital, r , to calculate their *present value (PV)*, as expressed in the following formula:

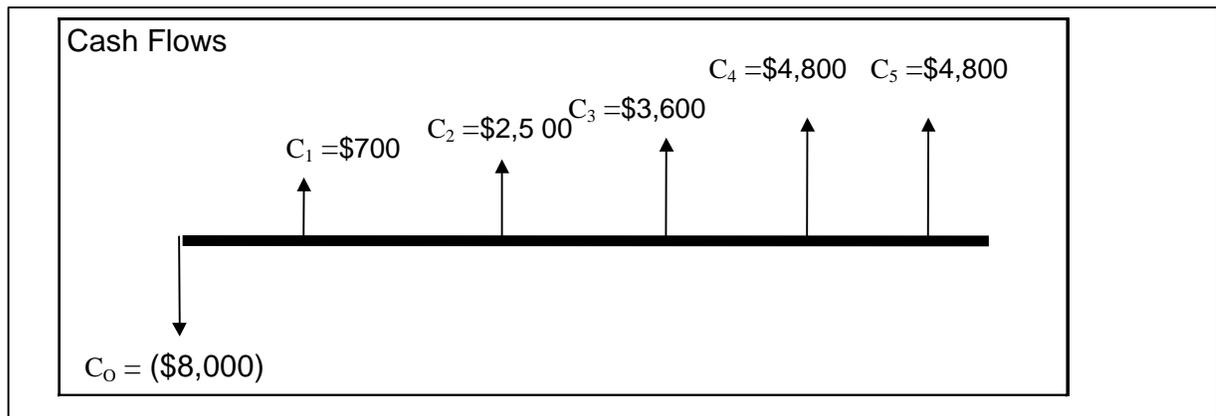
$$\text{Present value: } PV = \sum C_n \div (1 + r)^n = C_1/(1 + r) + C_2/(1 + r)^2 + \dots C_n/(1 + r)^n$$

To derive the *net present value*, one must simply take into consideration the initial cost of the investment, C_0 , the cash outlay in time period 0. This expense is a *negative* cash flow and is thus *subtracted* to get the net present value:

$$\text{Net present value: } NPV = [\sum C_n / (1 + r)^n] - C_0$$

If the discounted value of future cash flows is greater than the initial investment, the project should be accepted. If $NPV \leq 0$, then the investment is *not* financially attractive. An investor is indifferent if the NPV is exactly zero, that is, the discounted future cash flows anticipated from the project is exactly equal or offset by the cost of the investment.

As an example, consider the following projected cash flows from a new product launch that cost \$8,000 to develop:



Using a common discount rate of 10 percent ($= 0.10$), the NPV of this new product development project would be:

$$\begin{aligned} NPV &= (\$8,000) + \$700/(1.1) + \$2,500/(1.1)^2 + \$3,600/(1.1)^3 + \$4,800/(1.1)^4 + \$4,800/(1.1)^5 \\ &= (\$8,000) + \$636.36 + \$2,066.12 + 2,704.73 + 3,278.46 + 2980.42 = \$3,666.10 \end{aligned}$$

Since \$3,666.10 is greater than zero, the project should be undertaken.

2. Internal Rate of Return (IRR)

The internal rate of return (IRR) is a derivation of the NPV formula, but it is a much less precise financial decision-making tool.² The IRR of a particular project is the discount rate at which the present value of future cash flows from this potential investment equals the cost of the investment. Therefore, the discount rate that would make the NPV of a particular project exactly equal to zero is its *internal rate of return*.

To find the IRR of a particular investment that will generate cash flows C_n for a period of n years, one must solve for IRR in the following expression:

$$\text{NPV} = C_0 + C_1/(1 + \text{IRR}) + C_2/(1 + \text{IRR})^2 + C_3/(1 + \text{IRR})^3 \dots C_n/(1 + \text{IRR})^n = 0 \text{ or}$$

$$\sum C_n / (1 + \text{IRR})^n = C_0$$

$n = \# \text{ of years (time period)}$

If IRR is greater than or equal to the opportunity cost of capital, typically the hurdle rate of return a firm requires all its investments to meet, then the project is accepted. If IRR is less than the desired rate of return, the investment is not financially attractive. Using the example above, one can calculate the IRR of the project to determine whether it should be undertaken.

Cash Flows	C_0	C_1	C_2	C_3	C_4	C_5
Amounts	(\$8,000)	\$700	\$2,500	\$3,600	\$4,800	\$4,800

The internal rate of return for this project is the IRR that solves the following equation:

$$\text{NPV} = (\$8,000) + \$700/(1 + \text{IRR}) + \$2,500/(1 + \text{IRR})^2 + \$3,600/(1 + \text{IRR})^3 + \$4,800/(1 + \text{IRR})^4 + \$4,800/(1 + \text{IRR})^5 = 0$$

Actual calculation of IRR is a process of trial and error. Arbitrarily trying the discount rate of zero (0.0 percent), the resulting NPV is +\$8,400, calculated as follows:

$$\text{NPV} = (\$8,000) + \$700/(1.0) + \$2,500/(1.0)^2 + \$3,600/(1.0)^3 + \$4,800/(1.0)^4 + \$4,800/(1.0)^5 = \$8,400 \text{ which is greater than zero}$$

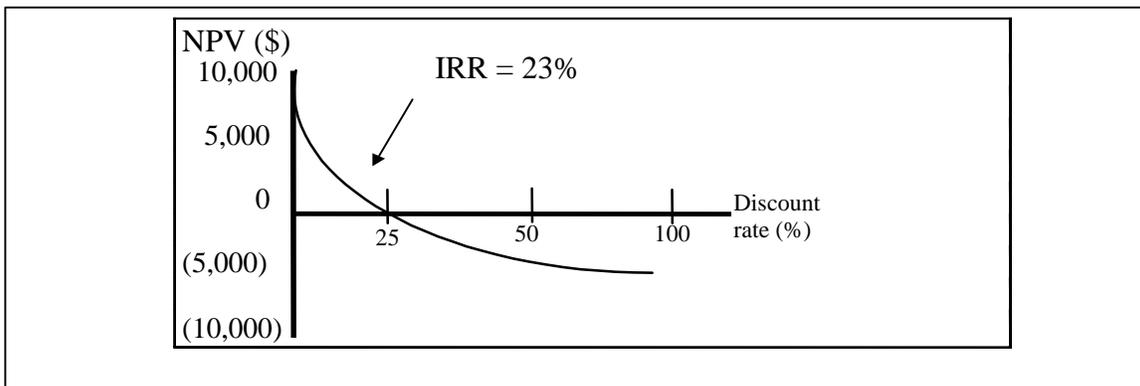
Thus, we know that the IRR is greater than zero. But unlike NPV, it is not sufficient to know simply whether IRR is positive or not. It must be greater than the firm's hurdle rate

² A full discussion of the superiority of NPV over IRR as a decision-making tool is beyond the scope of this text. In summary, some of the weaknesses of IRR include errors that arise in differentiating between multiple rates of return, mutually exclusive projects, and time-sensitive interest rates. In spite of these deficiencies, IRR is still widely used in the corporate world, which is why an explanation and its derivation are provided.

of return. Returning to the trial and error method, one can again arbitrarily choose an unusually high rate of return, like 50 percent, to determine an upper boundary for IRR. Substituting this test IRR of 50 percent (0.50) into the formula, the resulting NPV is \$4,241.98.

$$\text{NPV} = (\$8,000) + \$700/(1.50) + \$2,500/(1.50)^2 + \$3,600/(1.50)^3 + \$4,800/(1.50)^4 + \$4,800/(1.50)^5 = (\$4,241.98), \text{ which is less than zero}^5$$

It is clear that the correct IRR is somewhere in between 0 and 50 percent, as illustrated on the adjacent graph. The easiest way to manually approximate IRR is to plot such a graph. The IRR is wherever the NPV line crosses the X axis (which equals zero)—in this case at 23 percent. In other words, the IRR that will make the NPV of this project equal to zero seems to be 23 percent.³ Because 23 percent is greater than the firm's required rate of return (10 percent), it accepts the project. Note that both decision-making methods produced the same answer, from a financial return perspective, regarding whether to proceed with product development.



³ Using the programs available on most financial calculators and spreadsheet software, one can compute the exact IRR for this project: 22.8 percent.