

Citi Foundation



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Resource Book on Designing & Delivering Agriculture Financing Products

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Foreword

Agriculture is the foundation of many economies around the world. After the start of the Industrial Revolution, the increase in world incomes and rapid population growth has led to the rise in the demand for food and agricultural products. Yet, ironically despite such increases in the number of people and their ability to purchase produce, most of the world's poverty can be found in the agricultural sector, where millions of farmers who own less than two hectares of land can barely provide for their basic necessities and often face crippling challenges such as lack of access to markets, credit, and technology to scale production.

This situation holds true in the Philippines, where most of the country's labor force is involved in agriculture. The Philippine agricultural sector represents at least half of the country's Gross Domestic Product and over a third of its workers are involved in agriculture. However, most Filipino rural poor are farmers who work on less than two hectares of land, often engaging in subsistence-based agriculture to provide for their very basic needs, and still it is not enough. Small land holdings or even lack of land ownership poses challenges to many Filipino farmers in being able to improve production, secure good and quality credit, and harness developments in technology that will dramatically change their yields. Often, the middle-men, large landowners, and big agricultural traders are the ones who accumulate the most wealth created in local agricultural value-chains.

Citi Foundation recognizes that there is a need for more work in the field of agriculture value-chain development, especially in providing access to markets, finance and technologies for some of the world's most marginalized farmers. We feel that innovations can especially be made in the microfinance sector in providing linkages and opportunities to farmers as a way to address some of the major issues and challenges in development. Microfinance institutions or local trading organizations have the potential to aggregate, train, and provide much needed financing to small holder farmers.

It is in this context that Citi Foundation funded this study in partnership with Microsave and Opportunity International with the hope that it will jumpstart innovative developments in local agricultural value-chain initiatives across the country. We hope that the study will lead to the development and use of new financial products and services that will serve small Filipino farmers, and we hope that organizations can use the suggestions made in the study as stepping stones towards creating win-win situations where everyone gains across the entire agricultural value-chain.

Citi has been in the Philippines for more than 100 years, and improving the lives of Filipino farmers as a means to creating a more inclusive economy is a key strategy in its financial inclusion efforts in the country. In every place where Citi works, economic empowerment of low-income individuals and communities through financial education, microfinance, and enterprise development are the goals of our organization. Building better communities through these tenets in is one way were Citi contributes to the progress of the global economy.



Batara Sianturi

Batara Sianturi
Chief Executive Officer
Citi Philippines

About Citi Foundation

The Citi Foundation works to promote economic progress in communities around the world and focuses on initiatives that expand financial inclusion. We collaborate with best-in-class partners to create measurable economic improvements that strengthen low-income families and communities. Through a "More than Philanthropy" approach, Citi's business resources and human capital enhance our philanthropic investments and impact. For more information, visit www.citifoundation.com.

About Opportunity International United States

Opportunity International is a global non-profit organization that helps people in developing nations work their way out of poverty, strengthen their families and improve their communities. The organization currently provides loans, savings programs, insurance and other financial services and training to more than 5 million clients in 22 countries across Africa, Asia, Latin America and Europe. Clients use the resources to expand businesses, provide for their families and create jobs in their communities. The U.S. headquarters of Opportunity International are in Oak Brook, Ill., with other key offices in Australia, Canada, Germany and the United Kingdom. The organization proudly employs more than 17,500 people around the world. Discover more at opportunity.org.

About *MicroSave*

MicroSave is a premium consultancy organisation that offers practical, market-led solutions to financial institutions and corporations focussed on bringing value to the base of the pyramid. We believe that financial inclusion is essential to reduce poverty. *MicroSave* is at the forefront of efforts to move financial services from a product-led to a market-led approach. The market-led approach focuses on putting the customers at the centre of the business – thus gaining loyal customers, establishing more profitable organisations and ensuring greater developmental impact.

We work with investors, donors, financial institutions, private foundations, corporate businesses and regulators to enable them to deliver the high quality, affordable financial services that are essential for sustainable and inclusive growth. Our expertise lies in areas of strategy development and governance, product and channel innovation, organisational strengthening and risk management, investment and donor services, research, training and dissemination.

About Authors

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Special thanks to Mr. Mark Daniels, East Asia Regional Director, Opportunity International Australia for bringing various stakeholders on a common platform to initiate the research study.

Citi Foundation



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List of Acronyms

ASEAN	Association of South East Asian Nations
CBU	Compulsory Build Up
DA	Department of Agriculture
DOST	Department of Science and Technology
FAOSTAT	Food and Agriculture Organisation Statistics
FGD	Focus Group Discussion
GDP	Gross Domestic Product
MCPI	Microfinance Council of the Philippines, Inc.
MFI	Micro Finance Institution
MIS/IT	Management Information System/Information Technology
NFA	National Food Authority
NGO	Non-Government Organisation
NLDC	National Livelihood Development Corporation
PCIC	Philippines Crop Insurance Company
PhP	Philippines Peso (currency)
PO	Purchase Order
RTD	Ready to Drink
SWOT	Strength, Weakness, Opportunity, and Threat
TOR	Terms of Reference
VCF	Value Chain Financing
WR	Warehouse Receipt

About the Resource Book

Most agricultural finance products launched by microfinance institutions (MFI) face the risk of low acceptability among the target clients. Therefore, their subsequent fate is a hasty withdrawal by MFI management, which sees it as a financial burden. The reasons behind low acceptability may be varied:

- a. Poorly designed product concept which did not factor in the client requirements
- b. Product was never piloted to fully understand its financial impact on the organisation
- c. Product was rolled out without clearly defining the systems and processes

These failures affect the organisation's reputation besides creating a dent in the institution's finances. This resource book intends to avert such risks by presenting a systematic guide to designing and piloting agricultural products. It demonstrates an approach, which can help the financial institution in understanding the clients' perspective, assess its organisational strengths and financial implications before rolling out the product.

The resource book is based on years of experience of *MicroSave* in designing, developing, and prototyping financial products for the poor in different parts of the world. The resource book is adapted from a series of toolkits developed by *MicroSave* like Product Development, Pilot Testing, and Product Roll Out.

This resource book can act as a useful guide to:

- a. Micro Finance Institutions (MFIs) engaged in providing financial services to the poor, particularly agricultural finance
- b. Community based organisations engaged in aggregation of farm produce
- c. Other practitioners in the area of agricultural financing

The intended benefits of the resource book are to:

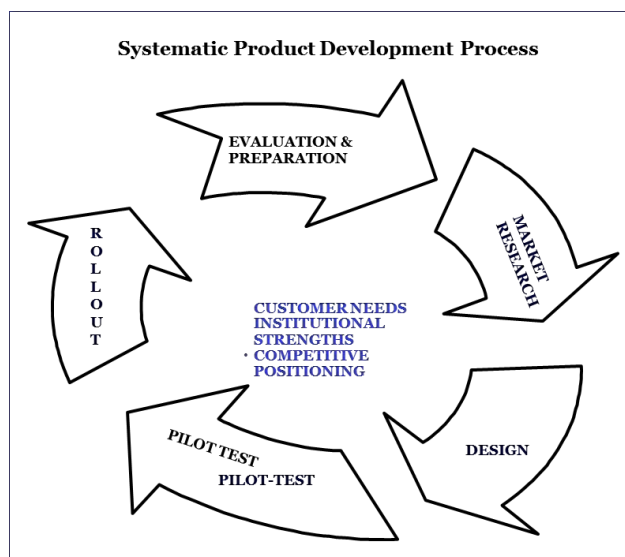
- a. Help the audience in understanding clients' perspective
- b. Understand the concept of value chains and usage of the tool of value chain analysis
- c. Identify opportunities and develop these into a product concept
- d. Use pilot testing to gauge clients' feedback on the product and its impact on organisation
- e. Roll-out of the product successfully with known benefits and impacts

The resource book follows the *MicroSave's* systematic product development concept, which emphasises product development to be a continuous process rather than a simple linear process. The process comprises:

- a. Evaluation and preparation
- b. Market research
- c. Design
- d. Pilot test
- e. Roll out

The resource book is divided into three chapters.

Chapter One outlines the development of product concept and then a product prototype, which is ready to be tested through a pilot. This chapter will help the readers in developing their own product prototype or modifying the existing product. This part of the resource book delves into understanding value chains, identifying opportunities for financial and non-financial interventions, and developing these opportunities into concept and prototypes. The content mostly draws from *MicroSave's* consulting assignments on value chain development and financial product development.



Chapter Two discusses pilot testing of the product prototypes. This will help the MFIs in designing and conceptualising the pilot, taking precautions while conducting pilot, and monitoring the pilots. The chapter discusses *MicroSave's* pilot testing framework, which has been used to conduct pilot testing of financial products with number of financial organisations in Africa and Asia. The chapter provides readymade tools to organise and manage pilot testing. It also answers some of the common questions related to pilot testing of a product.

Chapter Three guides the readers in understanding the concept of product roll out after successfully testing the prototype through pilot testing. Once the results of the pilot test are out, the management needs to prepare themselves for the roll out of the product across the branches of the organisation. This chapter covers the various aspects of product roll out, management response, and issues related to communication. The chapter will help the audience in understanding the process of product roll out and the key steps in successfully rolling out a product.

We hope that the resource book will help the financial institutions in streamlining the process of product development, piloting, and rolling out the agriculture finance products thereby improving the prospects of success in delivering financial services to small and marginal farmers.

Chapter 1 | Product Development



In the picture: Calamansi fruits brought by the farmers to a local wholesale market in Luzon, the Philippines

The chapter discusses the development of product prototypes using the method of value chain analysis. In this chapter, three specific value chains are covered. The reader is guided through the process from value chain analysis to the product prototype development in each of the three cases.

1. Context and Purpose

The agricultural sector contributes about 11% to the Gross Domestic Product (GDP) and provides employment to 32% of the total labour force in the Philippines as of 2013¹. The scale of agriculture ranges from merely subsistence farming to large-scale export-oriented contract farming for large multinational companies. If one considers agricultural production along with agricultural processing and agribusiness industry (trading and manufacturing of inputs), 40% of the GDP and two-thirds of the employment opportunity in the Philippines arises from this sector². The sheer scale and pervasiveness of agriculture in the Philippines economy underscores its significance in providing employment opportunities.

However, the agricultural sector in the Philippines faces several challenges. Lack of access to long-term finance, particularly for small and marginal farmers and landholders, and the absence of suitable credit products are some of the severe bottlenecks for the sector³. The problem endures despite the presence of several financial institutions, including a large number of MFIs providing agricultural loans to farmers. “The microfinance industry report, Philippines 2010⁴” published by the Microfinance Council of the Philippines, Inc. (MCPI) shows that there are 14,394 MFIs catering to 4.9 million borrowers. The report also highlights that 50% of the microfinance clients are engaged in agricultural activities (farm and non-farm). Despite this high percentage, some of the challenges outlined in the report are –

- The need to design and innovate appropriate MF products for clients engaged in agricultural activities as most of the poor live in the rural areas,
- The need to design financial products which meet the increased capital requirement of MF clients engaged in micro-enterprise
- Multiple lending

Further, even for the MFIs that have agricultural credit products, they are mostly designed for cereal crops (like rice and corn). There are very few examples of products targeted for livestock production, hog rearing, and other non-cereal crops.

However, growing traction on agricultural finance is palpable in the MFI space. MCPI published a report “Financial Product Innovations Fund: Case Studies on Product Innovation⁵” highlighting case studies on product innovations around agriculture. Many NGO-MFIs are working closely with farmer communities to understand their requirements and design a suitable financial product. With the advancement in mobile technology, mobile banking is recognised to have a huge potential in providing access to the unbanked in developing economies. Findings from the Philippines show that one-half of the active mobile money users are unbanked, of which, 26% are poor⁶.

Financing to small and marginal farmers

Agricultural financing has traditionally been reserved for the traders and middlemen as they provide working capital during the production stage of the crop. In these “internal financing” relationships, the terms of credit are generally skewed against the small and marginal farmers. Even with the entry of avowedly pro-poor MFIs in the space of agricultural credit, small farmers are still dependent on input suppliers or local traders for the bulk of credit support. Major reasons for the slow uptake from MFIs include inadequate loan amounts and products that are not optimally designed to meet the requirements of small and marginal farmers. For instance, a *MicroSave* research study found that a loan provided to a *palay* (local term for paddy) farmer in the first credit cycle was in the range of Php20,

¹ Evolution of population and labour force composition, <http://faostat.fao.org/site/666/default.aspx> accessed on 10th January, 2013

² Cielito F., Habiti, and Roehlano M. Briones, Philippine Agriculture over the Years: Performance, Policies and Pitfalls, <http://siteresources.worldbank.org/INTPHILIPPINES/Resources/Habito-word.pdf> accessed on 27th February 2012

³Cielito F., Habiti, and Roehlano M. Briones, Philippine Agriculture over the Years: Performance, Policies and Pitfalls, <http://siteresources.worldbank.org/INTPHILIPPINES/Resources/Habito-word.pdf> accessed on 27th February 2012

⁴ http://www.bwtp.org/files/Resources/Asian%20Network%20docs/MCPI/MCPI_Microfinance%20Industry%20Report_2010.pdf accessed on 28th February 2012

⁵ http://www.microfinancecouncil.org/wp-content/uploads/2013/02/FPIF_Case-Studies_Final_2012.pdf accessed on 28th February 2012

⁶ Pickens, Mark, 2009. Window on the Unbanked: Mobile Money in the Philippines. CGAP brief 56724

000/ha⁷ while the requirement was for Php30, 000/ha. To bridge this gap in capital, a farmer either must buy inputs on credit or borrows from the local trader with an implicit understanding that the produce will be sold to him after the harvest. What sets a farmer back in this arrangement is that the rate of interest can be as high as 5% per month, to be repaid either in cash or adjusted against the harvested *palay*.

Table 1 below highlights the characteristics of small growers in the Philippines who fit the microfinance client profile. These farmers not only lack capital but also access to best practices. Some of the non-financial interventions like providing extension services or training on farm production enhance productivity and therefore enables a higher profit value to be realized without additional costs.

Table 1: Characteristic Of Small and Marginal Farmers and Their Environment

Factors	Challenges	Outcome
Assets	<ul style="list-style-type: none"> ✓ Small landholding , less than 1 hectare ✓ Tenants ✓ No machinery 	<ul style="list-style-type: none"> ✓ Low economic viability resulting from high cost of cultivation due to lack of scale ✓ High vulnerability
Agricultural practices	<ul style="list-style-type: none"> ✓ Geared for subsistence and not for marketing ✓ Mono-cropping ✓ Low use of technology and best practices ✓ Primarily limited to production and no value addition ✓ Not enough information on new agricultural practices and new varieties of seeds 	<ul style="list-style-type: none"> ✓ Low marketable surplus ✓ Affects viability ✓ Poor price realisation due to low volume and poor quality
Production	<ul style="list-style-type: none"> ✓ Low productivity ✓ Poor quality of produce and high price volatility ✓ Mostly used to meet local demand 	
Support services	<ul style="list-style-type: none"> ✓ Dependence on government assistance for seed, fertilizer, and machinery inputs ✓ Limited access to extension services 	<ul style="list-style-type: none"> ✓ Still practicing traditional agriculture ✓ Little or no upgrades in production process to new practices
Market access	<ul style="list-style-type: none"> ✓ Absence of any direct linkages with buyers and processors ✓ Dependence on traders for transportation and access to markets which are mostly local ✓ No price related information flows 	<ul style="list-style-type: none"> ✓ Not enough bargaining power ✓ Information asymmetry between farmers and traders
Access to credit	<ul style="list-style-type: none"> ✓ Limited access to credit from banks due to poor asset base ✓ Traders, input suppliers, local money lender, family, and friends are the sources of credit ✓ Only very few are linked to MFIs and co-operatives ✓ No crop insurance for crops other than rice and corn 	<ul style="list-style-type: none"> ✓ Indebtedness due to high interest rates and poor price realization on marketed produce ✓ MFI loan not sufficient to meet the requirement of the small holders ✓ Vulnerability to natural calamities

⁷ Hectare (ha)

The Value Chain Approach

A value chain is the complete flow of activities encompassing, pre-production, production and marketing stages of a product. It gives details of the various roles and functions performed by various actors in the value chain. Often the value chain for any farm product is characterised by a large number of intermediaries between the farmers and the end consumer. These intermediaries also meet part of the financial requirements of the producers and in exchange receive the produce at a discounted rate. Other influencers associated with value chains are government agencies, warehousing agencies, processing units and transporters. The value chain analysis, helps in identifying different channels through which a product moves from the farm to the final consumer, roles of different value chain actors in these channels and the way different functions get organised across these channels. It also helps in calculating the value retained by different actors and thereby helps in comparing the favourability of different channels for small and marginal farmers; In addition to identifying the flow of cash and credit in the chain. Overall, it lends an understanding that can guide an analyst in designing more pro-poor intervention by altering the existing flow of value in the chain in favour of small and marginal farmers.

Lately, an interest in value chain financing is shaping up amongst MFIs in the Philippines. There are several reasons for this. Firstly, many MFIs have come to realise that an understanding of a crop's value chain empowers them to alter their product design to suit the needs of their clients. Secondly, MFIs want to manage credit risk by diversifying their agricultural finance portfolio by financing crops other than traditional cereal crops like *palay* (local term for paddy) and corn.

In efforts to finance the needs of small and marginal farming households, MFIs have adopted two approaches. One is to finance the non-farm or off-farm activities as a supplementary source of income to the agricultural income. Another is to provide small and programmed credit in the post-production stage of the value chain. The product design varies for both cases. In the first, repayments are staggered (using the off-farm income), whereas in the latter case, the repayments are in bulk towards the end of payment terms. What is totally missing from MFIs' current approach is the finance for better risk mitigation or better price realisation. Limitations in product design also exclude MFIs' access to other small producers involved in agriculture, horticulture, fisheries, or processing of farm produce.

During the course of study we identified opportunities to finance various stakeholders. However, this chapter will focus on the findings and analysis of the value chain research that *MicroSave* undertook for Citi Foundation and showcases the Value Chain Finance (VCF) product prototype for the small and marginal farmers. These prototypes take advantage of space and time arbitrage to create value for multiple stakeholders. The study also highlights the importance of aggregation through institution building and market linkages for enhanced value creation for small and marginal farmers.

Methodology

MicroSave, with the help of some of its partner MFIs viz. ASKI and TSPI in the Philippines, conducted a research study that identified some of the pro-poor and high potential value chains as well as explored various financing options. The output of the study has been summarised in the form of this resource book to help MFIs in product development, conduct pilot test, and finally the full-scale roll-out. The resource book will help these institutions in delivering a variety of agricultural finance products to the small and marginal farmers on their own.

MicroSave team's secondary research identified livestock, *palay*, onion, vegetable which included ginger, and calamansi as the potential crops of interest based on geography, local demand, export potential, and number of farmers engaged in the activities (refer Table 2). Furthermore, after discussions with partner MFI, *MicroSave* shortlisted onion, rice and calamansi for a detailed study. The research team also interacted with ginger producers. However, since a detailed value chain study was not undertaken for ginger, we have presented the study as a small case study (refer Appendix 2).

Table 2: Criterion and Parameter for the Selection of Value Chains

Criterion	Parameter	Description
Comparative advantage	Efficiency of production	High productivity with locally available skill set
Risk Profile	Susceptibility to environmental risk	Effect of natural calamity on production
Local demand	Availability of processing facility	Consumption pattern locally both fresh and processed produce
Pro-poor focus	Number of small holders engaged in production	Engagement of small and marginal farmers at the production level
Partner involvement	Number of clients of the partner MFI	Number of loan client of the MFIs engaged in the production of different crops

The study was carried out in Luzon province of the Philippines. ASKI and TSPI served as the partner MFIs and helped *MicroSave* in conducting the research and analysis. The following tools were used to carry out the study:

- Value chain analysis framework⁸
- Participatory Research Assessment (PRA) tools like Focus Group Discussions (FGD)⁹ and seasonality analysis (*Refer Appendix 1 for detailed FGD guide*)
- Individual interviews
- Secondary research

During the course of the study, the team conducted:

- 8 FGDs with *palay*, onion, calamansi, and ginger farmers
- FGDs with 2 cooperatives, 1 farmers' association and 2 with staff at the processing plants
- 24 individual interviews with retailers, rice mill owners, cold storage owners, and a pickled ginger exporter
- 3 expert interviews with officials from National Food Authority (NFA), Department of Agriculture (DA), and a meeting with government officials from the DA and the Department of Science and Technology (DOST)
- Visits to 6 local fruits and vegetable markets in different provinces and a larger wholesale market in Metro Manila

Based on the value chain analysis coupled with primary and secondary research, *MicroSave* organised the findings of the research study to distil some workable models that can be replicated by MFIs. These models range from very basic tweaks in existing loan products to a more complex model, which engages several stakeholders and requires more resources for their implementation. All of these models have their inherent strengths and weaknesses but are similar in their intent to benefit the small and marginal farmers. To make the models more robust, risks were also identified to help the MFIs in making an informed decision while selecting a model.

For a model to be successful, delivery channels are only as important as the right product design. In keeping with this view, our research explored the role of Information and Communications Technology (ICT) in delivering financial and non-financial services and coupling them with the suggested models. With the progress made in mobile technology and mobile payment system, it is now possible for MFIs to leverage these capabilities in servicing the communities living in remote geographies. This is also likely to reduce the magnitude of transaction costs.

2. Existing Financing Sources for Agriculture

As a general rule, various actors in the value chain finance their activities using a mix of two sources of financing—internal and external. Internal, as the name suggests, refers to financing by one of the players within the value chain and external refers to financing done by an agency that operates independent of the value chain. The choice

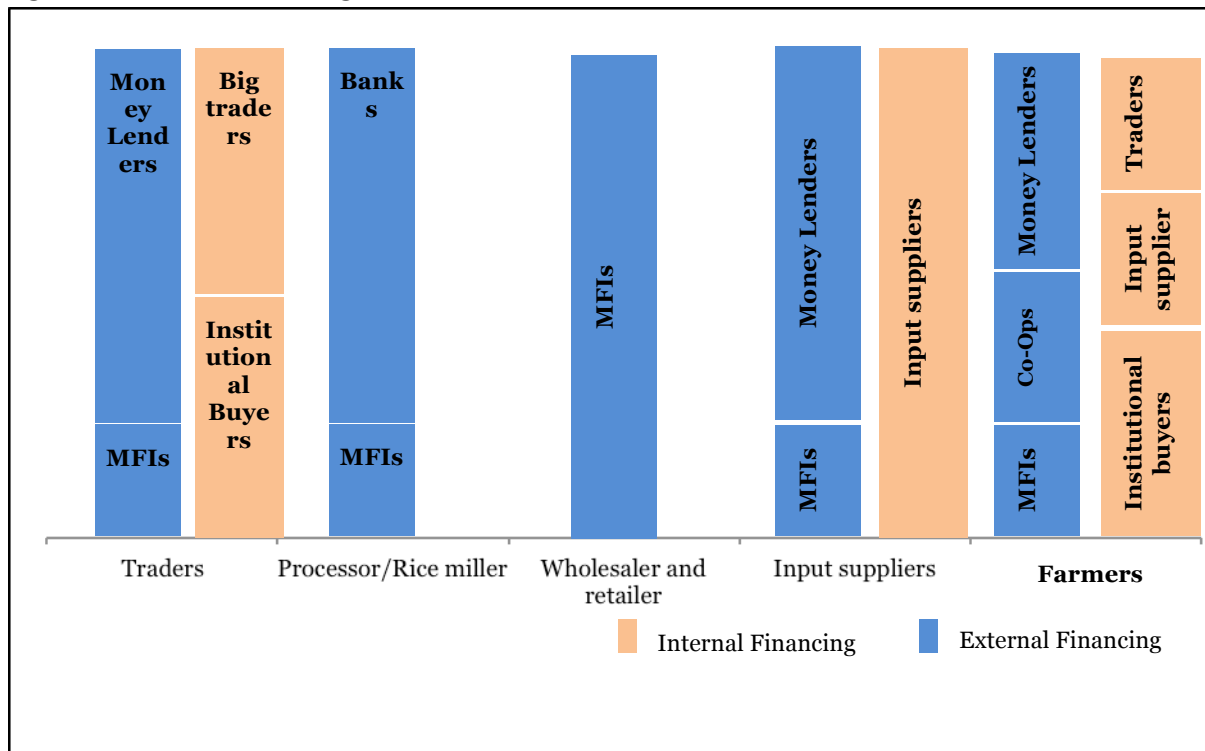
⁸ Olaf, K, Downing, J, and Field, M. 2006. Globalization and the Small Firm: A Value Chain Approach to Economic Growth and Poverty Reduction. *microREPORT #42*.

⁹ For details refer to *MicroSave's* Market Research for Product Development Toolkit

between internal or external financing depends on the local context and the way the value chain is organised. For example, farmers arrange for the capital required for investments during the production stage (for inputs like seeds, fertiliser etc.) either by approaching the traders and input suppliers (who are integral to the value chain) or by borrowing from the local moneylenders.

In the space of value chain financing for small and marginal farmers, MFIs have a noticeable presence as an external financing source across the value chain especially in cereal crops like rice and corn. A portfolio analysis of MFIs conducted by *MicroSave*, showed that MFIs are financing all stakeholders in the value chain with a prominent presence at the producer stage (refer *figure 1*). For example, there are traders who received loans from MFIs to procure paddy from farmers. These traders used the borrowed capital to provide credit to farmers. Similarly in the case of the onion value chain, traders and input suppliers received loans from MFIs. The value chain approach provides a unique opportunity for MFIs to align their involvement in a fashion that works towards improving the value retained by small farmers rather than acting to their disadvantage. There is an opportunity for MFIs to be further involved with more complex products like receivable finance (by linking to warehousing facilities) or by helping farmers link directly to the processors higher up the value chain.

Figure 1 : Sources of Financing for Different Value Chain Actors¹⁰



With socially responsible MFIs providing both financial and non-financial services across the value chain, MFIs may eventually emerge as a viable alternative to local traders. This will ensure a greater transparency in pricing structures for the farmers and may be followed by other local traders too. This will ultimately benefit the small and marginal farmers. In the subsequent sections, we will illustrate and discuss a few models, which can be adopted and piloted in the field.

¹⁰ In the Philippines even banks are providing microfinance services. Therefore, it is important to make distinction between the banks and the MFIs in the context of this research study. To make things simpler and ease of understanding “banks” means all those banks which are registered as commercial bank and “MFIs” includes all the microfinance banks.

3. Agriculture Value Chain Financing

Value Chain Financing (VCF) in agriculture has emerged as a powerful tool in creating an impact on the livelihood of farmers, especially small and marginal farmers, at the production and the post-harvest stage. With proper application, VCF holds a lot of potential to increase farmers' share in the total profit value created in the value chain.

Value creation in a chain

Generally speaking, value is added to a commodity when it undergoes a change in three aspects- space, form and time (refer figure 2). In the case of space value, there is value added onto the produce when it is at a place with higher demand than supply. For instance, when the commodity is transported from the farm gate to a local market or exported to international markets it undergoes a price appreciation that reflects the addition in value.

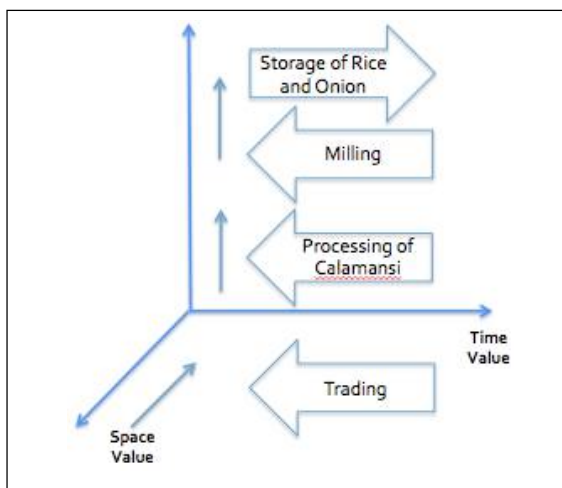
The form value accrues as the produce changes either its physical and/or chemical form and is converted into a state that is more consumable. For instance, milled rice fetches a higher price than paddy.

Finally, since primary produce is seasonal in nature their price fluctuates across the year and a produce (even with similar form and at a same place), may fetch a different price just by the virtue of its availability at a particular time of the year (the intersection of supply and demand). Thus, the time value gets added to a product when it is available during a lean production season.

In the case of *palay*, space value is created by transporting *palay* or calamansi from one market with greater supply to another market with limited supply fetching a higher price. Similarly, time value is created when *palay* is stored immediately after harvest and sold during the lean season fetching a higher price. On similar lines, calamansi can be processed to make juice, concentrates, and ready-to-drink (RTD) beverages to create form value. Traders purchase *palay*, dry the *palay*, mill it into rice, and send it to different markets to generate additional values thus taking advantage of form, time, and space arbitrage. Similarly, processors procure calamansi from the markets where it is cheaper and take advantage of space arbitrage and process it into a different form to create form advantage. These changed forms like juices, concentrates, or dried form and are then exported to create a space value. In the case of the onion crop, it is stored at the time of harvesting and later exported to countries like Japan and Indonesia to create time and space value. Thus, different actors take advantage of one or more of the three kinds of arbitrages of space, time and value to earn greater profits.

Any entity that works for the benefit of farmers should create a better value proposition for the farmer by offering competitive pricing and efficient delivery. Financing plays a key role here as farmers tend to lose a significant value either because they lack the capital required to undertake one of the above value additions (e.g. dryer for *palay*, warehouse facility for storage etc.) or their existing terms of credit are so skewed in favour of their lenders (traders or moneylenders) that they lose a substantial part of their surplus. Thus, adequate and timely finance can make a huge impact in improving the value realised by the farmers.

Figure 2: Three-Dimensional Framework to Create Value in a Value Chain



In the Philippines, MFIs have a strong case for venturing into VCF. A large proportion of MFI clients are farmers or are involved in farm-based work. Thus, diversifying into value chain financing makes imminent sense for MFIs. Not only will MFIs diversify their portfolio, it will also de-risk it by tending to other factors that create instability in a farmer's income.

Case 1: Palay/Rice value chain

Production – Overview and historical trends

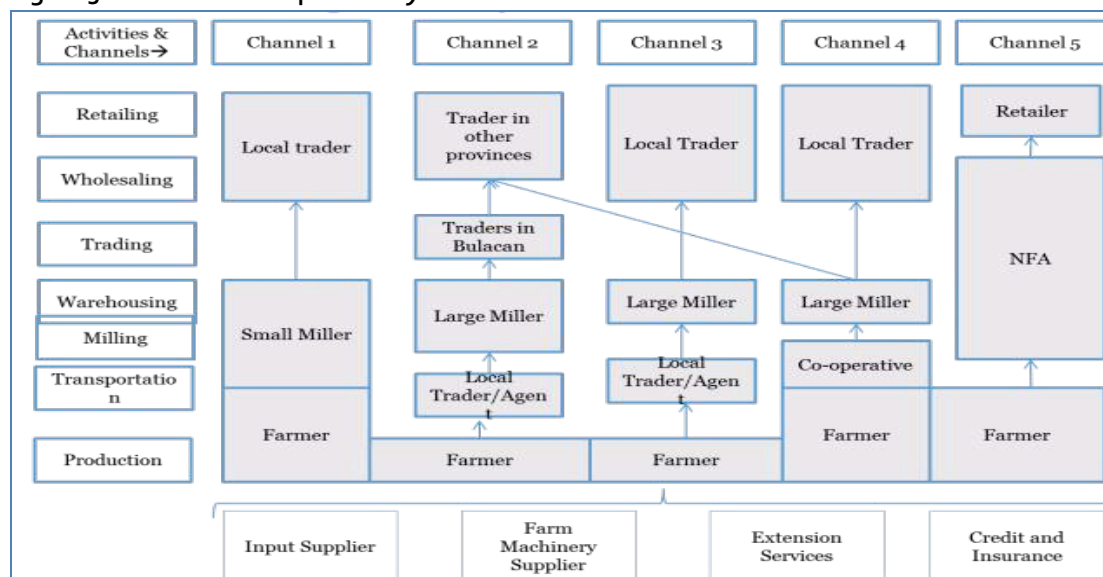
Rice is the staple food of the Philippines. According to the Food and Agriculture Organisation Statistics Division (FAOSTAT), in 2011 the Philippines was the eighth largest rice producer in the world¹¹. Despite being a leading rice producer, the country is the fourth largest importer of rice due to the vast domestic rice demand. The main rice producing areas in the country are Luzon, Western Visayas, Southern Mindanao and Central Mindanao.

From 1960 onwards, the Government of the Philippines has focused its efforts on achieving self-sufficiency in rice production. The introduction of high yield varieties (HYV) and corresponding usage of fertilisers and chemicals led to increased production in the subsequent years. If paddy rice production is analysed for three time periods 1970-84, 1985-99 and 2000-2010, the production increased by 83% and 166% respectively as compared to 1970-84 and 1985-99 productions. The per hectare paddy rice production also increased from 1.16 tonnes per hectare in 1963 to 3.8 tonnes in 2009. The 2013 estimates for paddy rice production are also quite encouraging. The Bureau of Agricultural Statistics estimates the paddy rice production level to be 10.1 million tonnes, an absolute growth of 10.7% over last year. The biggest rise in production has occurred in Cagyan Valley, Central Luzon, Ilocos region and Western Visayas.

Palay value chain actors

The major actors in the *palay* value chain are farmers, traders, millers, wholesalers, retailers, and input suppliers. To see their interactions refer to Figure 3 that shows the *palay* value chain map. The figure exhibits different ways in which the value chain is organised based on how key functions of production, transportation, milling, warehousing, trading, wholesaling and retailing are distributed amongst the key value chain actors.

Figure 3 : Value Chain Map for Palay and Rice



¹¹ FAOSTAT, <http://www.fao.org/docrep/018/i3107e/i3107e03.pdf>

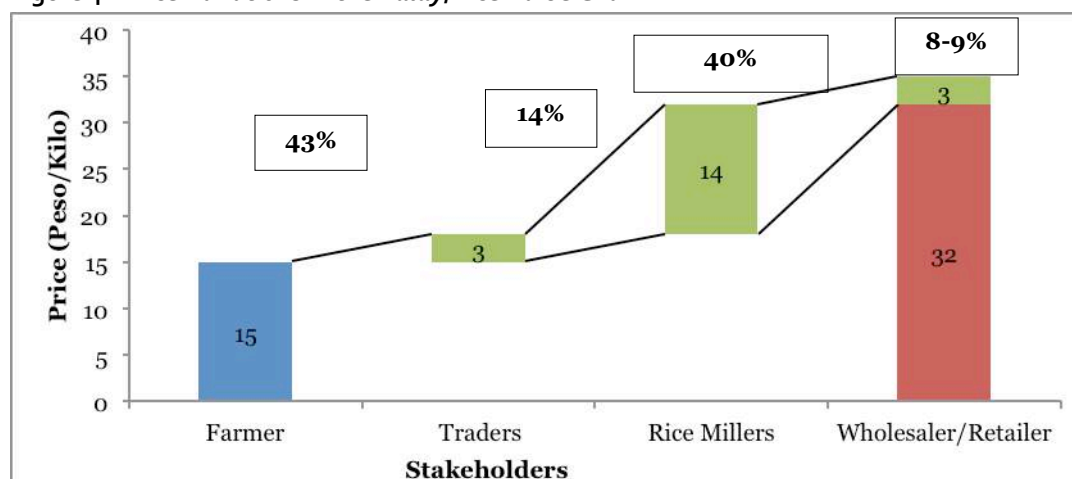
Flow of value in the chain

Figure 4 shows that about 40% of the total price value is created by traders who aggregate the rice from farmers and then sell it to the millers. Based on our research and interviews with the experts, the following information can shape up the strategy of MFIs:

- Farmers can get Php1-1.50 more if palay is dried with moisture content of 14%. Also, if the grain size is larger, the palay will command Php2-3 more for a kilo. Farmers can get a higher price (about 20% more) if they can store it for 3-4 months.
- Traders play the role of aggregators and transport palay to rice millers
- The millers' profit margin gets reduced because of milling cost. They need rice in bulk and this is not possible when doing business with small holders. They generally trade with large farmers or the traders. Millers produce different quality grades of rice at differential prices.
- The bran and husk are sold to the Animal feed industry which can fetch another Php2-7 /kg

In the absence of a drying facility, the farmer ends up drying the *palay* on the street, which results in significant post-harvest losses (about 10-20%), a substantial amount in the case of small and marginal farmers. Thus, this provides an opportunity for MFIs to finance drying facilities.

Figure 4 : Price Variations in the *Palay*/Rice Value Chain



SWOT analysis of *palay* value chain

Strength	Weakness
<ul style="list-style-type: none"> ✓ Production has kept pace with increased demand ✓ Huge local demand for consumption ✓ A priority area for the government as rice self-sufficiency is considered an important component of the food security programme ✓ Large number of rice mills are present across regions, thus the expense on transportation of palay to mills is not very high. ✓ The by-products of price milling i.e. bran and husk have economic value. Rice bran can be used as a feed while the rice husk is used as soil conditioner. 	<ul style="list-style-type: none"> ✓ Large number of traders is a defining feature of the palay value chain in the Philippines. They control the market at the village level and preclude any effort at aggregating the produce at farm level ✓ Rice milling market is an oligopoly market with few large rice millers. They have a disproportionate influence in setting prices ✓ Palay farmers are mostly small farmers with landholding less than 1 hectare which makes palay non-remunerative for them ✓ Absence of drying and storage facilities ✓ Farmer's lack of consciousness on quality ✓ Stagnant productivity ✓ Heavy dependency on chemicals
Opportunity	Threat
<ul style="list-style-type: none"> ✓ Institution building to develop association or co-operative to enhance bargaining power and develop infrastructure like drying facility 	<ul style="list-style-type: none"> ✓ Imports are very cheap. Currently quantitative restrictions (QR) are imposed to stabilise the domestic supply market

✓ Farm extension services to increase productivity	✓ Typhoons
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Designing VCF intervention

The *palay* value chain provides different avenues for providing financial and non-financial services to small and marginal farmers.

Non-financial intervention

Table 3: Non-Financial Intervention Design Strategy for *Palay/Rice*

Design question ¹²	Activities	Value proposition
What?	Aggregation, drying, weighing, direct transportation to rice mills, knowledge of the best practices	Engagement with farmers at all stages of production
Why?	<ul style="list-style-type: none"> ✓ To make the small holders' production viable ✓ To enhance value addition by ensuring the best quality palay reaches the market ✓ Linkage with rice miller will ensure that there is no commission involved 	Enhanced bargaining power and value addition
Where?	At farmer's door step	Enhanced transparency
When?	The objective should be to engage the farmers throughout the cropping cycle at different stages.	Trust building
How?	Structuring an association or co-operative which can take up all these activities of aggregation, processing, linkages, and distribution in a transparent manner	Profits can be distributed to the members

Financial intervention

- a. A simple agricultural loan can be designed with a loan amount adequate to meet all the input requirements of the farmer. The loan can be disbursed before the onset of the planting season. Even as the interest is collected on a monthly basis, the principal amount can be collected in bulk at the end of the term (usually a month after harvesting)
- b. Provide receivable finance so that farmers can gain additional time value.
- c. Input financing and cash together rather than just in the form of cash. In this method, farmers are provided inputs like seed, fertiliser, and insecticides. Farmers repay the cost plus interest after harvesting. The cash portion of the loan is provided to cover labour and the cost of machinery.

Case 2: Calamansi Value Chain

Overview – Production and trends

Calamansi is an indigenous citrus fruit grown in the Philippines. It is rich in vitamin C and is consumed fresh, in juice form, and dried form. Calamansi is exported from the Philippines in three major forms; juice constitutes close to 70% of the export form of calamansi, followed by the concentrate form. The major export markets for calamansi are the USA, Canada and Japan. Calamansi contributes approximately 1% of the total agricultural production by value in the Philippines. The Mindero province produces the highest amount of calamansi in the Philippines followed by Quezon and Nueva Ecija.

The production of calamansi has remained near constant for the last 3 years but has grown in value. This is because of increased demand for calamansi juice and other products in the international markets like Hong Kong, Japan, and USA.

¹² For the non-financial intervention design, we have used the concept of 4W's and H to answer critical questions. We have used this design question framework for other two value chains too.

Table 4 : Calamansi Production Trend

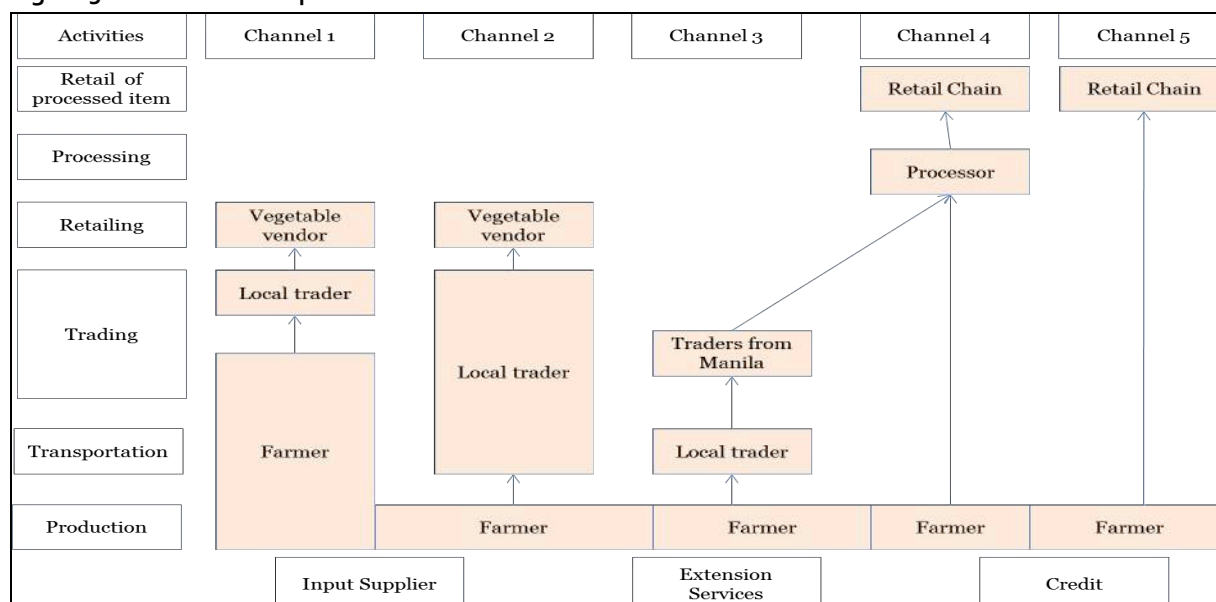
Year	Production (thousand metric tons)	Value (million pesos)
2009	192.2	3394.1
2010	188.3	2380.6
2011	182.6	4407.0

Source: http://www.nscb.gov.ph/secstat/d_agri.asp

Calamansi value chain actors

The major actors in the calamansi value chain are farmers, traders, and retailers. There are very few processors engaged in calamansi juice production in the Luzon province. However, for those that are present, they purchase the produce in bulk and therefore prefer to interact with traders directly rather than individual farmers. Given a huge export potential for the crop, direct linkages between farmers and processors will enhance farmers' income.

Figure 5 : Value Chain Map of Calamansi

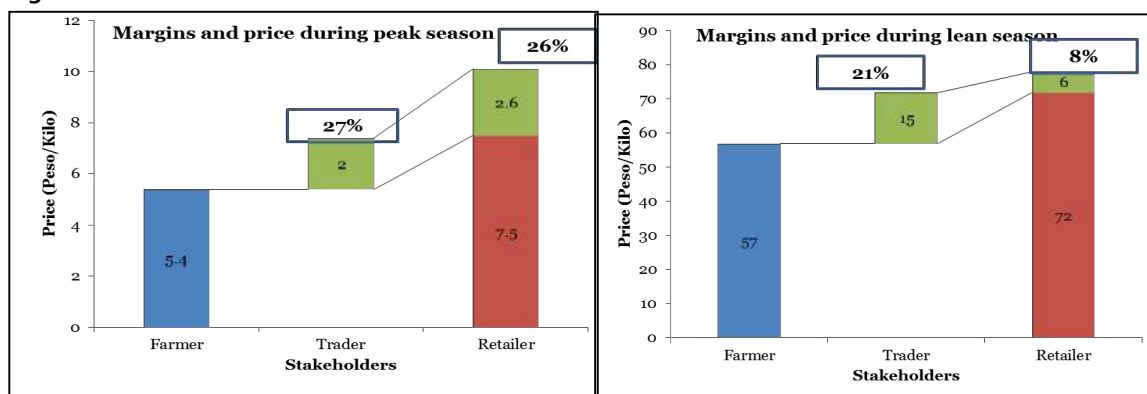


Flow of value in the chain

The profit margins for the producer, trader and the retailer during the peak season and the lean season are shown in figure 6 (the peak season corresponds to market glut due to excess production). The price of calamansi in the lean season is almost 8 times that of the peak season. Analysing for each stakeholder:

- For producers, the value added ranges between 47% (in peak season) to 70% (in lean season). Therefore, producers find it more profitable to sell in the open market during the lean season while in the peak season there is a glut and even the best quality produce fetches a very low price
- The trader adds a value of 21% to 27%.
- Retailers earn a higher margin in percentage terms during the peak season than in the lean season.

Figure 6 : Price Variations in the Calamansi Value Chain



Overall, the following are the salient features of the calamansi value chain:

- Since there is a huge price difference between the peak and lean seasons, processors prefer to buy in the peak season, process it into pulp, and store it. With suitable interventions, even farmers can prepare pulp at the farm level.
- However, most farmers are not linked to processors. As a result, when prices plummet during the peak season, they are left with no option but to dump the excess produce. MicroSave’s research estimates that the income of farmers can increase 30% by directly linking them to processors.
- During the lean season when prices are high, farmers can realise high incomes. These can be channelled as savings, which can subsequently be leveraged to access credit from MFIs during the peak season.

SWOT analysis of calamansi value chain

Strength	Weakness
<ul style="list-style-type: none"> ✓ Philippines is the largest producer and exporter of calamansi in the world ✓ The fruit is harvested throughout the year and thus there is a continuous supply ✓ It has an industrial usage and has a huge demand ✓ Government focus to develop value added product 	<ul style="list-style-type: none"> ✓ Production is mostly unorganised ✓ The value chain is dominated by the traders ✓ Even though the production is year-round the fluctuation in the quantity of produce is substantial which leads to significant price fluctuations between the peak and lean seasons ✓ Farmers lack an assured market for their produce ✓ Farming is dependent on the use of chemicals ✓ Huge wastage of the produce especially during the glut season as prices plummet
Opportunity	Threat
<ul style="list-style-type: none"> ✓ There exists huge demand in the international market for different value added products processed from calamansi ✓ Extension services related to production ✓ There exists processing plants to produce pulp, juice extract, and concentrates- there is enough scope to link them to the farmers 	<ul style="list-style-type: none"> ✓ Typhoon and rainfall at the time of flowering ✓ Unstable pricing may deter new entrants ✓ Insurance and credit services are not readily available

Designing VCF intervention

The calamansi value chain offers opportunity for both financial and non-financial intervention for the MFIs.

Non-financial intervention**Table 5: Non-Financial Intervention Design Strategy for Calamansi**

Design question	Activities	Value proposition
What?	Aggregation, quality, transportation, and linkages	Linkages with processor will be easy
Why?	<ul style="list-style-type: none"> ✓ To ensure that farmers earn higher value during the peak cropping season ✓ Loss of produce at farm level can be reduced as the produce can be sold to the processor under a contract 	Ensure better price during the peak season
Where?	At farmers door step	Enhanced transparency
When?	Both the peak and lean seasons of production	Trust building
How?	<ul style="list-style-type: none"> ✓ Structuring an association or co-operative, this can take up all these activities of aggregation, and getting contract from the processors. ✓ Providing training to the farmers on quality and farming practices. 	Profits can be distributed to the members; Assured market during the peak season

Financial intervention

- a. A modified agricultural loan product that takes into account, the seasonality in the cash flows of calamansi farmers. Such a loan product will obviate farmers' compulsion to visit the moneylender during the peak season.
- b. Introducing a 'loan against deposit' product that lends to farmers against their savings that they accumulate during the period of surplus income (that usually coincides with the lean months for calamansi farmers). MFIs can also contemplate collaborating with a bank where a small farmer can park their deposits during the lean season against which the loan will be offered by the MFI. This will enable farmers to access low cost debt from MFIs at reduced interest rates and at the same time, MFIs can reduce the default risk as the risk gets partly covered by savings.
- c. Financing through contract farming can be another option for MFIs, where the processor gives a contract to the small growers in the form of a purchase order (PO) for a certain quantity and quality of produce at an agreed upon price. On the basis of the PO, MFI can provide loans to an individual farmer or a group of farmers.

Case 3: Onion Value Chain**Overview – Production and trends**

Luzon is the largest producer of onion in the Philippines and has enormous export potential. The most common variety of onion is Granex, which has a large demand in Japan, Indonesia, and Singapore. The government is also taking an interest in onion production and its exports and is supporting onion farmers through its various departments and agencies. Most of the farms in the Nueva Ecija province have been certified to produce onions fit for Association of Southeast Asian Nations (ASEAN) market.

Table 6 : Onion Production in Different Regions of the Philippines (2012)

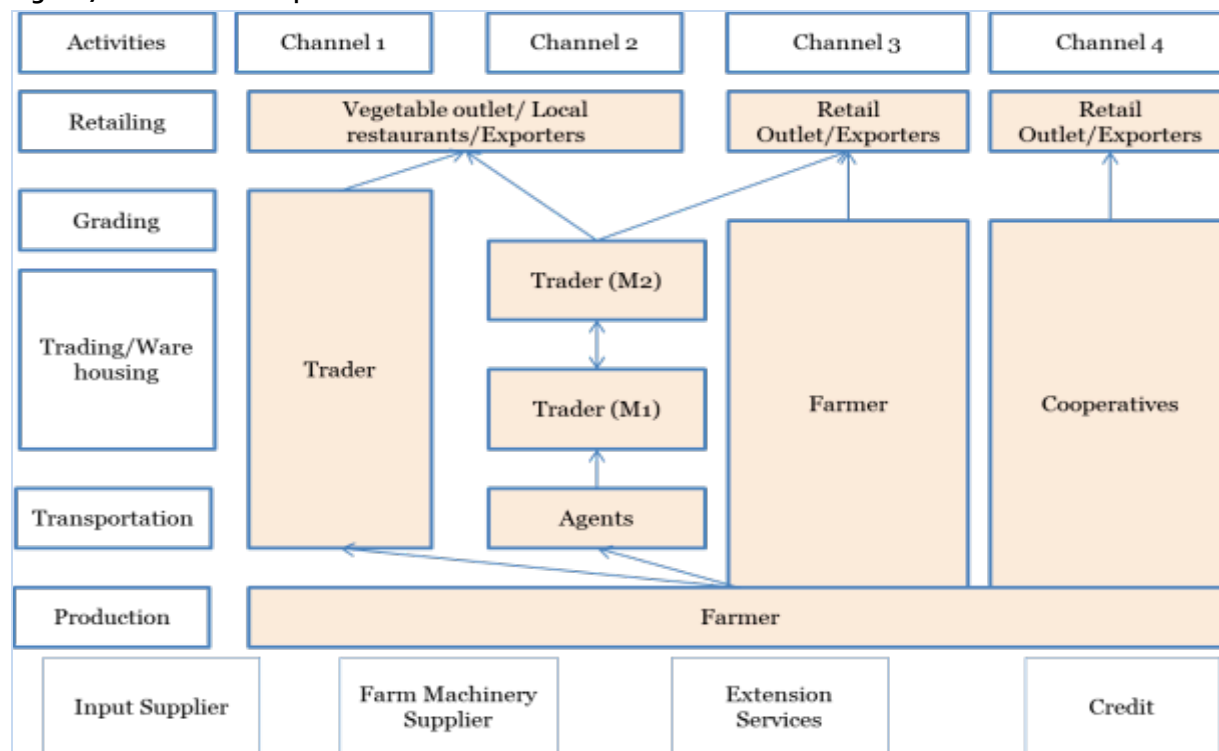
Region	Production (Tonnes)	Percentage
Central Luzon	72,499.93	58%
Ilocos region	40,421.19	32%
Mimaropa	8,465.25	7%
Others	3,437.18	3%
Total	124,823.55	100%

Source: CountryStat Philippines

Onion value chain actors

The major actors in the onion value chain are input suppliers, farmers, transporters, traders, and retailers. Onions can be stored in a cold storage/warehouse for 6 to 7 months. This allows traders and some large cooperatives to store the onion during the harvesting season and sell them after 5-6 months when prices are high. Most of the small farmers sell their produce immediately after harvest to repay their debts. Hence, they are not able to take benefit of the spike in prices.

Figure 7: Value Chain Map of Onions

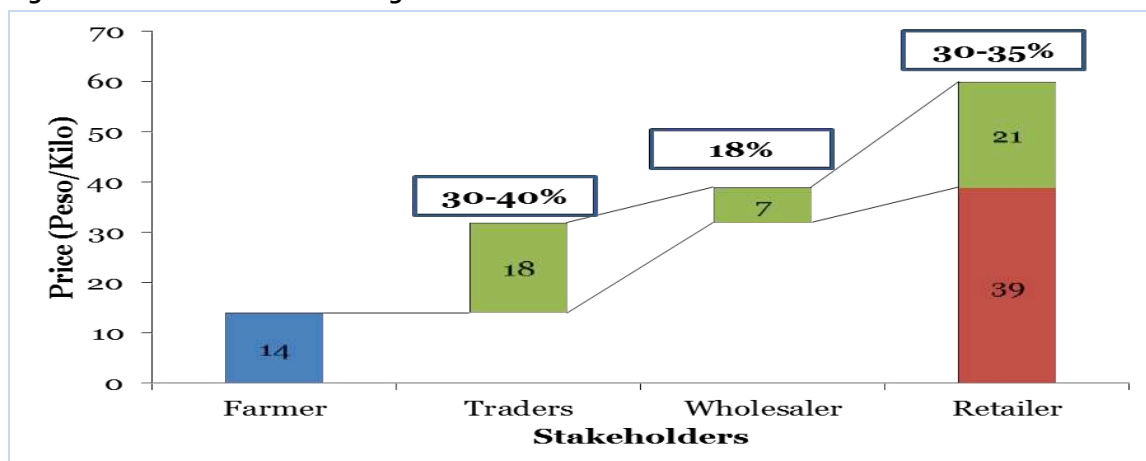


Flow of value in the chain

The flow of value in the onion value chain can be seen in figure 7.

- From the figure above, it is evident that with better storage facilities there can be further increases in value addition by 20-30% for farmers. Currently, the majority sell the produce immediately after harvest and receive the prevailing market rate, which is around Php12-16/Kg.
- There are some institutions who buy directly from the farmers for export purpose. They are quite particular about quality but do not take any initiative to work closely with the farmers to improve the quality of the final produce
- The local markets are dominated by the traders who have storage space so that they can sell it during the lean season.
- Contract farming is also prevalent where farmers provide onions to the buyer at an assured price agreed upon before planting the crop. The price is decided on historic prices and remains the same for the entire season irrespective of prevailing price. An advantage of contract farming is that there is an assured market for the produce. Often the price offered is higher than the prevailing market price at the time of harvesting.

Figure 8 : Price Variation and Margin within the Onion Value Chain



SWOT analysis of the onion value chain

Strength	Weakness
<ul style="list-style-type: none"> ✓ Surplus production for marketing and exporting ✓ High demand in the Philippines and nearby countries ✓ Good quality onion production ✓ Government's priority area ✓ Philippines has become a net exporter of onions from being a net importer some years back ✓ The value chain is well established ✓ Warehouses with modern facilities coming up in the area of production 	<ul style="list-style-type: none"> ✓ The supply chain is dominated by traders who effectively gain by storing produce in the warehouses ✓ Adequate financing not available; other sources are very costly ✓ Most of the farmers are small holders or tenants cultivating 1-3 hectares which results in lower bargaining power ✓ Distress selling by the farmers ✓ Heavily dependent on chemical fertilizers ✓ Exports are allowed from Manila only ✓ Transportation is very costly
Opportunity	Threat
<ul style="list-style-type: none"> ✓ Innovative financing product can be offered to small farmers to reduce distress selling ✓ Other ports should be opened to export onions ✓ Extension services to farmers to reduce dependency on chemicals and adopt IPM (Integrated Pest Mgmt.) and INM (Integrated Nutrition Mgmt.) 	<ul style="list-style-type: none"> ✓ High transportation costs and increase in electricity may affect the viability of warehousing and exports by reducing the profit margin ✓ Land fragmentation and poor quality can affect onion production and price ✓ No insurance for the onion crop and hence the farmers are exposed to the vagaries of weather.

Designing VCF intervention

The onion value chain currently offers a few financial and non-financial opportunities, where MFIs can be integrated into the value chain. These are detailed below.

Non-financial intervention

Table 7 : Non-Financial Intervention Design Strategy for the Onion Crop

Design question	Activities	Value proposition
What?	Aggregation, transportation, training on quality, and storage	Engagement with farmers at all stages of production
Why?	To ensure that small and marginal farmers can access storage facilities for which the entry barrier is very high. Currently only big traders or co-operatives have access	Enhanced price realisation

Design question	Activities	Value proposition
	to warehousing facilities which requires upfront deposits for rent of 100 bags of 50kg each	
Where?	Warehousing	Enhanced transparency
When?	Throughout the entire cropping season	Trust building
How?	Structuring an association or co-operative which can take up the aggregation and store the produce in a warehouse	Avoid distress selling; can take loan on the stored produce

Financial intervention

- a. A basic agricultural loan can be designed with a loan amount adequate to meet all the input requirements of the farmer. The loan can be disbursed before the onset of the planting season.
- b. Designing a receivable financing product for the farmer to avoid distress sale by the farmers and take advantage of time value. To offer this product, MFIs need to work closely with a warehouse service provider, an evaluator to evaluate the produce, and the farmers. Further description is provided in **Box 1**.
- c. Contract farming is another option where in the farmer enters into an agreement with a buyer on providing produce at a mutually agreed upon price irrespective of prevailing market price. The agreement is binding and all the terms and conditions are mentioned with emphasis on quality parameters. MFIs can finance farmers based on the contract agreement. This reduces the risk of non-payment of the loan if the price drops in the market.

Box 1 : Onion Warehousing Finance – The Concept**Context**

The onion value chain includes three key stakeholders: farmers, a middle man/agency including traders/bigger farmers, and cooperatives. Apart from these three stakeholders, the other peripheral actors are input suppliers, farm machinery suppliers, extension service providers, and credit suppliers. From production to final customer, the key value addition in the chain is warehousing the product for 3-4 months until the lean months when high prices exist. On average, the price goes up by 100-150% in these 3-4 months.

Even though farmers are aware of the seasonality in price, they are not able to leverage it to earn higher income. The prime reason is that by harvest time, the farmers are already burdened by debt and need money to cover their liquidity issues. Therefore, farmers sell their produce early at a price of Php15-17 /kg to the local trader or intermediary. These intermediaries stock the produce, wait for prices to increase and, then release it into the market at marked-up prices.

Status	Gap	Solutions
High rent of cold storage warehouse	Unavailability of finance with farmers to rent out the space	Financing solution to support warehouse financing
Debt burdened farmer	Requirement of institutional credit for farming and household expenditures	Institutional credit for farming and consumption
Low production per farmer leading to poor bargaining power	Non-existence of farmer's collectives	Developing farmers collectives

Product rationale and concept

Rationale: The farmers earn the least in the onion value chain compared to other value chain players. Their margins are thin whereas, traders are making the 100-150% mark-up by storing the same produce for 3 months. The driving factors for this arrangement are:

- ✓ Availability of funds/cash flow with traders who can afford the rent and,
- ✓ Consolidation and collection of small quantities procured from different farmers

Therefore, to enable farmers' to earn a higher income it is imperative that they have access to finance to fulfil their immediate liquidity needs after harvest as well as pay for cold storage rent to store their produce. Concept: "Inventory Financing" product can be an apt solution to address the financing gap restricting farmers from stocking their produce.

4. Governance Structure

MicroSave assessed the characteristics of the value chains for the crops of interest to identify the key drivers in different value chains. The parameters on which these value chains were compared include:

- a. **Aggregation point:** Identifies the agency responsible for the aggregation of the produce at the farm level. Involvement of local traders or agents indicates that the value chain is inefficient in distributing profit values to producers and restricts their direct participation in the market. Greater involvement of co-operatives and farmers associations indicates that the value chain is producer-centric and is directly interacting with the players higher up the value chain.
- b. **Value chain power:** Indicates the key driver of the market. Traders' engagement indicates that traders have greater role in determining the supply and pricing of the produce.

- c. **Market characteristic:** Captures the demand pattern locally and globally. Export potential indicates that external markets also determine the price as well as production of the particular crop.
- d. **Crop characteristic:** Indicates the number of cropping cycles in a year, quality standards, and whether it can be stored or not. These characteristics play an important role in designing financial and non-financial interventions. Also, it helps in determining the scope of quality improvements to command a higher price in domestic and international markets.
- e. **Market linkages:** Shows whether farmers are directly linked with the markets or not. Linkages can be with government programmes supporting agriculture, or with processors, which can provide higher and assured value to small holders.
- f. **Financing models:** This tries to capture the sources of finance for the producers. A formal source indicates a strong value chain. The strength of the value chain makes the bank more comfortable in financing higher loans to producers. Informal financing sources suggest a weak value chain and non-recognition from formal financial sources. The cost of debt is much higher in a weak value chain than a strong value chain.

Apart from onions, it is evident that there is a huge gap in the market channels for *palay* and calamansi, which is disorganised and controlled by powerful intermediaries like agents and traders. The overbearing problem here is that the majority of farmers are small and marginal landholders. As such, the conventional financing models would not be suitable indicating the need for innovative models, which entail direct financing to farmers to be explored. The table below summarises the selected value chains measured against the value chain analysis parameter.

Table 8 : Characteristics of the *Palay*, Onion, and Calamansi Value Chains

Value chain characteristic	<i>Palay</i>	Onion	Calamansi
Aggregation point	Mostly by agents, co-operatives, and associations at a small scale	Mostly by agents, co-operatives, and associations at a small scale	Mostly by traders and by associations at a small scale
Value chain power	Large traders	Traders	Traders
Market characteristic	Domestic consumption	✓ Export ✓ Domestic consumption	✓ Export ✓ Domestic consumption
Crop characteristic	✓ Quality incentives ¹³ ✓ Crop season varies with different regions - round the year to twice year	✓ Quality incentives ✓ Can be stored to take advantage of time arbitrage ✓ Single crop in a year	✓ Quality incentives ✓ Can be processed; value addition at farm level ✓ 2 distinct seasons (lean and peak) in a year
Market linkages	None	30-40% linked to co-operatives and buyers	None
Financing models	✓ Direct to farmers; ✓ 5-6 month loans	✓ Direct to farmer with no insurance	✓ Direct to farmer with no insurance

¹³ Quality incentive indicates that the improvement in quality translates into monetary gain by commanding higher price in the market

Value chain characteristic	Palay	Onion	Calamansi
	coupled with insurance ✓ Input and trade financing	✓ Input and trade financing ✓ Contract farming	

With an exception of *palay*, the traders enjoy a very high profit margin of about 20-40%. This is partly due to the reason that *palay* requires drying, which is undertaken by rice millers. Long periods of storage are not suitable for *palay* without proper drying. Here, the trader plays on the high volume even though he enjoys a lower profit margin of 17% compared to 27%-35% in the case of onions and calamansi.

The farmers involved in this study were mainly small and marginal farmers with the average landholding size of less than a hectare. With most of them being involved in subsistence farming, there is very limited adoption of best practices for production, which results in lesser output with inferior quality. Lack of extension services, further prevents the farmers from adopting new technology or practices, which prevents them from obtaining a higher value. With limited access to the market, the farmers are forced to operate in an oligopoly market where a few traders control the price. The farmers are forced to be price takers rather than price setters and hence lose out on a significant portion of the value share. The small farmers are not viewed as credit-worthy by most of the formal financial institutions and hence they are hesitant in providing much-needed working capital to these farmers. With an access to formal credit sources, MFIs have an appropriate opportunity to provide much-needed financial products that will reduce small farmers' dependence on traders.

5. Enabling Factors–Making Small and Marginal Farmers Viable Option

Apart from credit, farmers need an enabling environment to thrive. More so, in cases of developing country like the Philippines, where with high population growth, the government needs to ensure food security to its people. In turn, this will increase the role of the small and marginal farmers in a value chain significantly.

Table 9 : Enabling Factor and Its Impact

Enabling factor	Which will lead to
Access to market (by linking to institutional buyers, processors, and exporters)	✓ Assured market/buyer for the produce ✓ Better and stable price realisation
Access to technology (Integrated Pest and Nutrient Management(IPNM), hybrid seed, improved agronomic practices)	✓ Increased productivity ✓ Reduction in the cost of production ✓ Better price realisation
Access to support services (Price related information, extension services, technical assistance)	✓ Improved bargaining power with the traders ✓ Improved quality to meet the requirement of end users
Aggregation (through associations or co-operatives)	✓ Collective bargaining power ✓ Better market linkages ✓ Access to cheaper credit

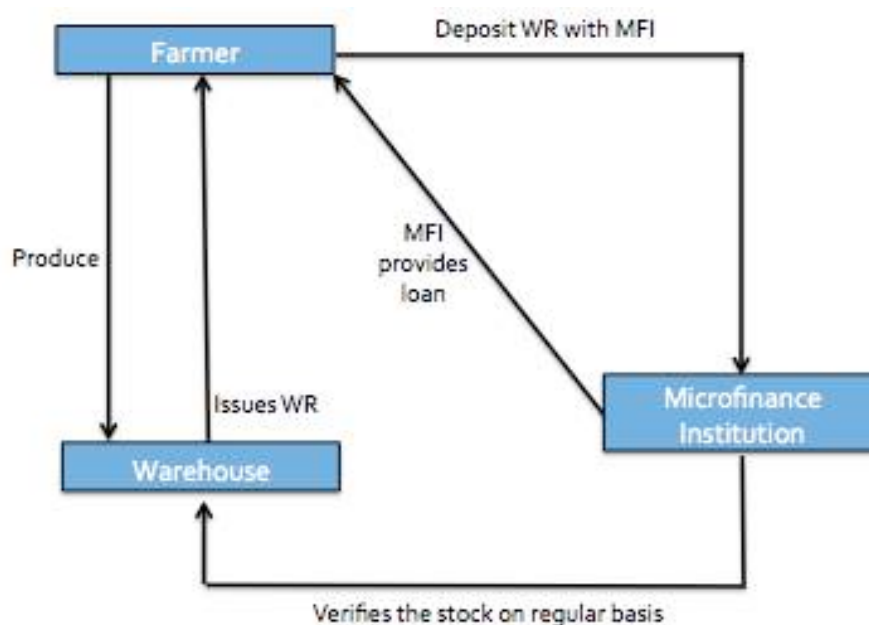
<p>Access to credit for farm, education and emergency needs (Adequate and timely based upon crop, season, and cash flow)</p>	<ul style="list-style-type: none"> ✓ Reduced indebtedness ✓ Reduces cost of cultivation ✓ Promotes higher investment in both labour and capital ✓ Improves farmer's ability to take risks by going in for higher investments
<p>Access to risk mitigation strategy (Insurance, innovative financial instruments, adopting best practices)</p>	<ul style="list-style-type: none"> ✓ Making small holders less vulnerable to natural calamities, price fluctuations, loss of market

6. Value Chain Financing Model

In this section, we will illustrate and discuss a few models and show some VCF product prototypes. These models may change based on regulatory conditions and can be customised based on MFIs' capability to handle operations and manage risks.

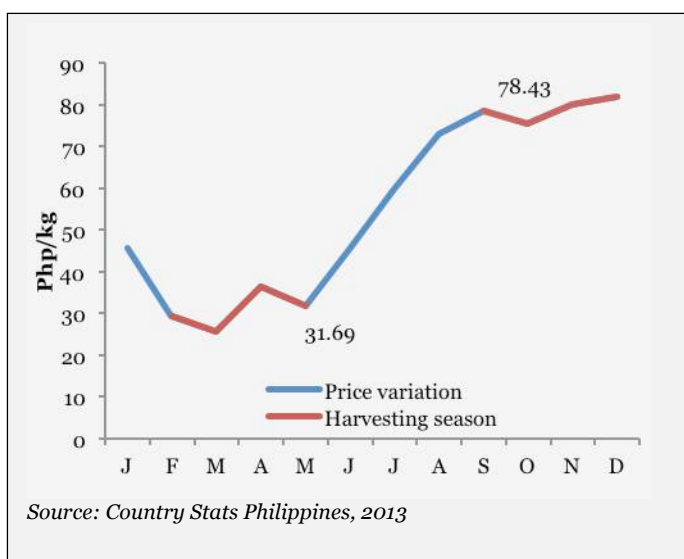
Model 1: Receivable Financing Options for Onions and Rice

In this model, farmers receive the financing against the produce stored in the warehouse. This model works well with crops having distinct seasons. Thus, crops like onions and *palay* that form an integral part of the food diet all year round but have seasonal production cycles and accordingly fluctuating prices (refer figure 10 for price fluctuations of onions) are an ideal choice for this type of financing. The farmers engaged in farming these crops can avail the loan against the produce that is stored in anticipation of a better price realisation a few months down the line.



Process:

- Farmer deposits his produce in an MFI designated warehouses
- Warehouse issues a receipt (WR) indicating the quantity, value, and the quality
- Farmer deposits the receipt with the MFI as a collateral
- MFI advances a credit (say 70% of the value of the WR) for a period of 4-6 months
- If the farmer wants to sell the produce in between, he has to return the entire loan or the MFI can sell the produce at the existing rate. The MFI will return the extra amount to the farmer as profit after deducting for the interest, storage cost, and any loss during the storage.

Figure 9: Price Fluctuation in Onion**Benefits**

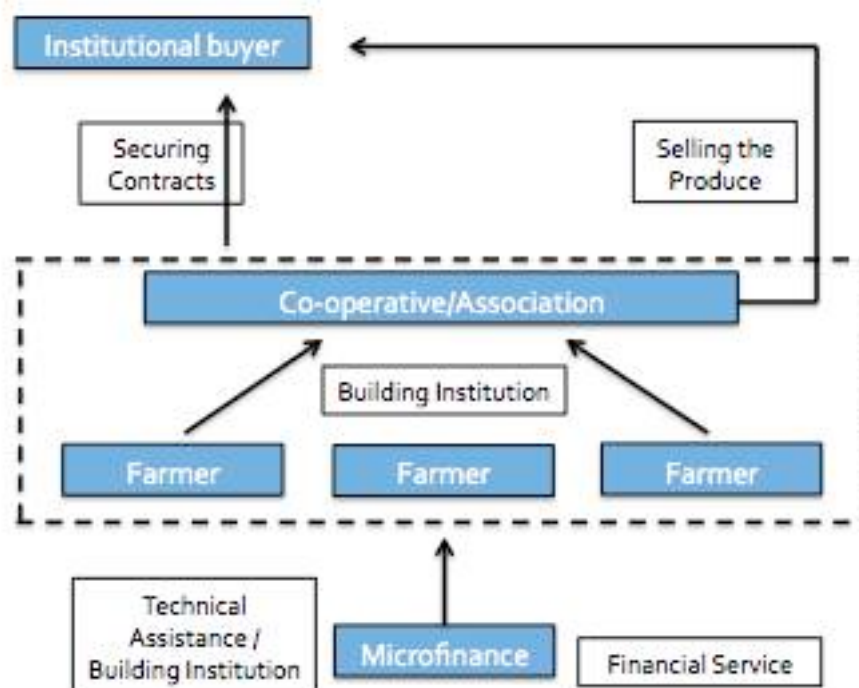
- Small farmers who are in need of cash immediately after harvest
- They can repay the loan and sell the onions at a later date to receive higher a price and can effectively pay the interest and storage charges
- MFI receives a collateral which minimises the credit risk of lending to small and marginal farmers

Risks

- If the price of the produce falls, there may be a wilful default by the farmers, as they will find it beneficial to default on the payment rather than repaying the loan and taking back the produce.
- Government regulation may affect the participation of MFIs in receivable financing
- Import policy of government or international demand may affect onion production and prices, which may affect the product.
- Quality of warehousing facility will be important to minimise the storage loss, which will impact the delivery of the produce to the farmer at the time of delivery. Some of the associated issues are related to weight loss, loss of produce due to improper upkeep and phyto-sanitary issues.

Model 2: Bulk Lending/Institutional Financing

The core of this model is building an institution focussed on the production and marketing needs of small and marginal farmers. It envisages building institutions like farmer associations or producer co-operatives that enable small and marginal farmers to benefiting from collective action. It could take various forms like aggregating post-harvest produce, benefit from discounts in prices of various inputs, increasing bargaining power vis-à-vis more established players in the value chain etc. Such an institution can play a pivotal role in linking small and marginal farmers to the mainstream market, formal financial institutions, and government programmes. Once such an institution is formed, it can be provided with different financing products to suit the producers' requirements. These can be contract farming or receivable financing, or a simple modified agricultural loan product.



Process

- The MFI can support farmers by building associations and co-operatives which can help in aggregation of produce and at the same time improve their bargaining power.
- MFIs can finance associations and co-operatives based on the robustness of their governance, processes, and past performance. The assessment should take into account the membership base and their land holding pattern to assess the participation of small holders.
- Also MFIs can support these institution by providing institutional building support and technical advisory services
- MFIs can help the associations or co-operatives secure market linkages by linking them to institutional buyers or exporters who can provide contracts to these farmers

Benefits

- Farmers get technical input on best agricultural practices which will improve their production
- The collective bargaining power of the farmers will increase once they get into an association or co-operative
- With contract farming, the impact of price fluctuations can be minimised
- Dependency on middle men will be reduced
- MFIs can finance the farmer based on the contract secured by the farmer or the co-operative

Risks

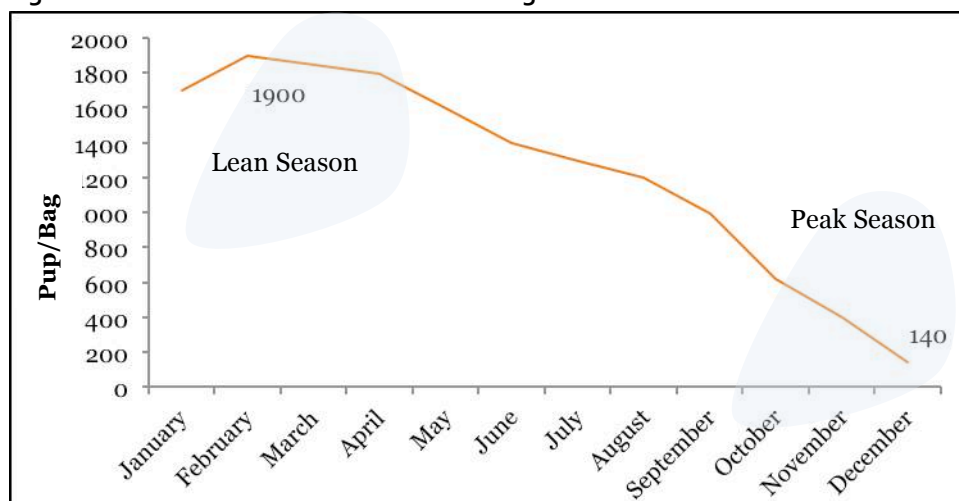
- The model will require sufficient gestation¹⁴ period during which it will have to be supported with grants
- It is a time taking process and will require a significant proportion of time invested in building relationships with the community
- Ensure that quality parameters are met otherwise it will affect the contract and the image of the institution working with the farmers as well as with institutional buyers.

¹⁴ <http://social.un.org/coopsyear/documents/AlmeriaPaperGiagnocavo.pdf> accessed on March 17, 2014

Model 3: Loan against Savings

This model tries to exploit the wide variation in prices of a commodity due to a crop's production pattern (refer to figure 11 to note the variation in the prices of calamansi between the lean and peak seasons). In such commodities, the differences in price during the lean and a peak season is huge which creates a wide gap between the incomes realised by farmers in these two seasons. However, if suitable mechanisms are created to accumulate the savings during the lean months, the same can be leveraged during the peak season to invest in value additions.

Figure 10 : Price Variation in Calamansi During Lean and Peak Seasons



Process

Calamansi prices undergo a distinct crest and trough within a span of 12 months. Being a perishable fruit, the growers enjoy high prices during the lean season. During the lean season, when the income from calamansi sales are high, the surplus can be utilised by the MFIs to accumulate savings. MFIs can partner with banks to park these savings in a bank account. The savings accumulated can be leveraged by the clients to access larger loans from the MFIs during the peak season. This amount can be utilised by farmers for various value added activities like arranging logistics to transport calamansi to a processor or to set up a small-scale juice making facility.

Benefits

- Farmers can avail higher loan amounts during the peak season
- MFIs reduce the risk of default because farmers have enough savings to meet their loan repayment requirements

Risk

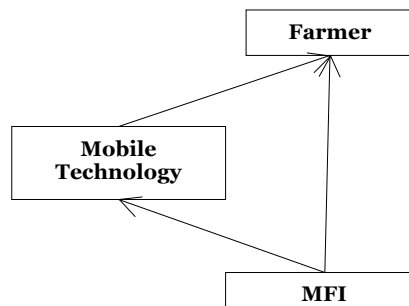
- Farmers may refuse to repay the loan even though they have enough savings balance. This risk can be mitigated as follows. The MFI and bank can agree to mark a lien on the savings in favour of the MFI. In the event of a default, the savings will be transferred by the bank to the MFI directly to settle the outstanding amount.
- An agricultural expert is required to assess the loan because the loan size will depend on various agronomic parameters like age of the crop, practices adopted and ownership of the land
- Quality is an important issue. If the crops are of poor quality, they will receive an even lower price in the market and hence will reduce the ability of the farmer to repay the loan
- There may be a loss due to insects, pests, and diseases which may affect the cash flow and hence repayment of the loan
- Natural disaster is another major risk in the Philippines

Box 2 : Using Alternate Delivery Models – Leveraging Information and Communication Technology

Mobile platforms can be leveraged for disbursement and repayments of loans as well. Both TSPI and ASKI are experimenting with mobile platforms to reduce transaction costs. The same platform can be used to gather data from various government agencies and disseminate this information through SMS to the farmers. This information can be related to price, crop practices or weather.

Benefits

- Lowering of transaction cost for the disbursement and collection of loans
- Farmers will receive price information (Frontline SMS technology) which will help them in bargaining with the traders
- Farmers can receive information on best agricultural practices and weather related advisory services on a regular basis.



7. Product Prototype

The above-mentioned models have been summarised in *MicroSave's* 8Ps framework¹⁵. The framework captures the product related details. Further, given the ubiquity of mobile phones and its potential in facilitating payments, an ICT framework has been incorporated in all four models. This can form the basis for MFIs to detail out the ecosystem surrounding a financial product.

8P's	Product 1: Warehouse receipt financing	Product 2: Institutional lending	Product 3: Loans against Savings
Purpose	<ul style="list-style-type: none"> ✓ To benefit from the seasonality in prices and avoid distress selling at the time of harvest ✓ Reduce the credit risk for the lender by providing a loan secured against the produce stored in the warehouse 	<ul style="list-style-type: none"> ✓ To offer bulk loan to co-operatives and farmers' association 	<ul style="list-style-type: none"> ✓ To provide a loan for crops with varying duration ✓ Leverage savings to offer credit products and thereby reduce lender's risk
Loan Amount	40-60% of the total value of the commodity. Lower for the commodity with high price volatility	>Php200,000	Php30,000 to 60,000 in a season
Mode of Loan Disbursement	Cash/bank transfer through mobile payments/cheque		
Repayment frequency	One-time payment (principal and interest) at the end of the term	One-time payment (principal and interest) at the end of the season	One-time payment (principal and interest) at the end of the season
Tenure	3-5 months depending upon the commodity	4-7 months	4-7 months
Collateral	Warehouse Receipt	None	None, in absence of contract from buyer. However, if Purchase Order (PO) is provided then it can be taken as a collateral and rebate on interest rate provided
Savings component	No Savings	Depending on the MFI policy	Compulsory Build Up (CBU) @5-10%
Insurance	Crop Insurance from Philippines Crop Insurance Company (PCIC)	Crop Insurance from PCIC	Crop Insurance from PCIC
Other terms and conditions	Warehousing charges	Prepayment is allowed and interest will be charged only for the outstanding amount	Prepayment is allowed and interest will be charged accordingly
Price	Interest rate	0.5% to 1% basis point lower than existing	2-3% diminishing balance

¹⁵ Refer to *MicroSave's* Product Marketing Toolkit for detail on 8P's framework

8P's		Product 1: Warehouse receipt financing	Product 2: Institutional lending	Product 3: Loans against Savings
		because the loan is collateralized; range from 2-3% per month		
	Processing charges	No processing fees	As per MFI policy	As per MFI policy
MFI's branch				
Place				
Promotion			Direct marketing through contracts	
People	Agricultural officer, Field Officer, Branch Manager	Agricultural officer, Trading house or co-operative, credit officer, Branch Manager		Agricultural officer, Credit Officer, Branch Manager
Physical evidence	Warehouse receipt, payment receipt, loan application form	Loan application form, receipts, purchase order		Loan application form, receipts
Positioning	Higher price realisation over a period of time	Direct selling with higher price realisation		Loan based upon the crop duration
Process	As per MFI policy and procedure; Validation of WR; Validation of warehouse	As per MFI policy and coordination between the trading house and MFI		As per MFI policy;

Chapter 2 | Pilot Testing



In the picture: Copra brought by a small holder is weighed at the local copra drying facility owned by a trader.

Chapter 2 discusses the pilot testing of prototypes using *MicroSave's* pilot testing toolkit. The chapter highlights the steps of pilot testing and the ways to manage pilots in a real setting.

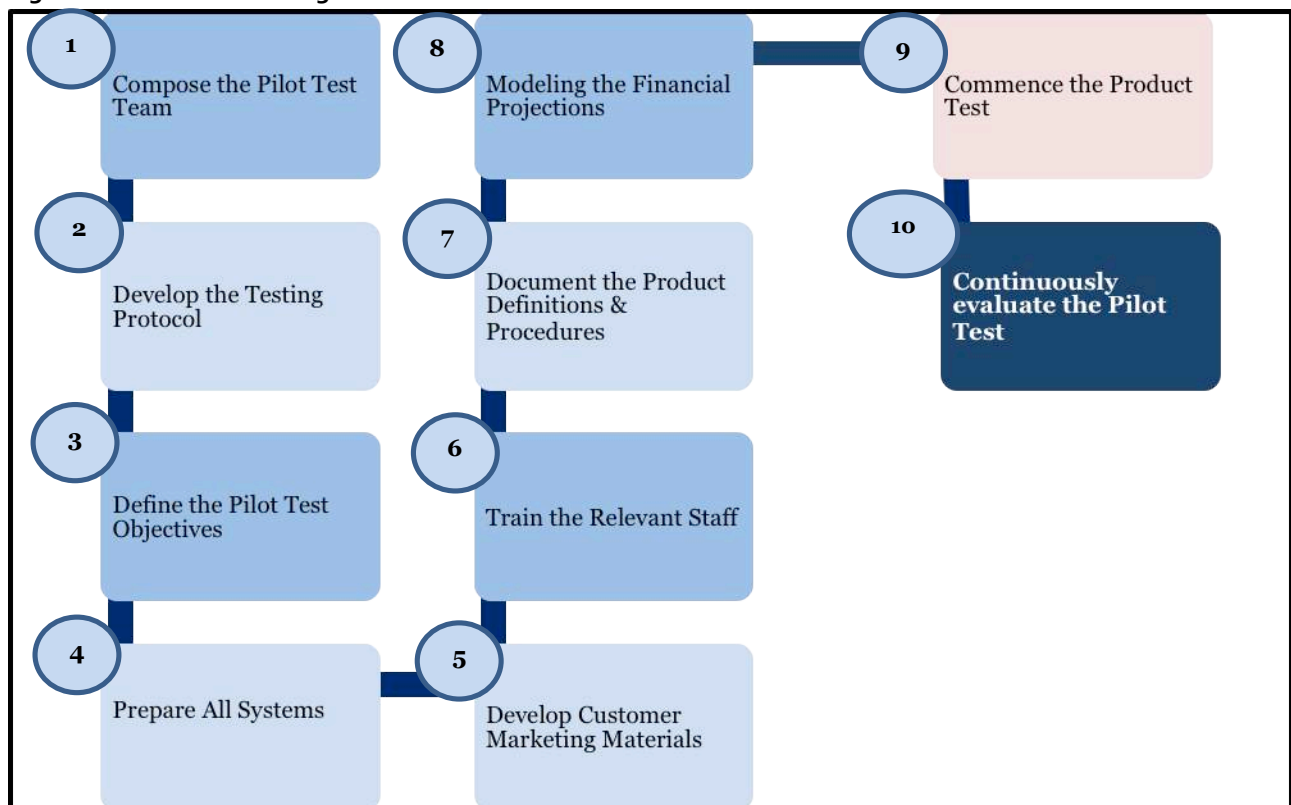
8. Pilot Testing

When designing a new value chain finance product, it is not possible to know if the product, as originally conceived, fulfils the market demand and the company's objectives. This can be determined most appropriately through testing the product on a limited market and collecting relevant information. The diagrams below show how pilot testing fits into the framework of product development processes.

First, clients, colleagues, management or other sources may have identified a problem or need that defines a research issue. Qualitative market research is done to clarify the problem or need and identify potential solutions. A product concept is born, and discussed to see if it is really worth developing. If management deems the product concept worthy of further exploration, they refine it into a product prototype. The prototype is further designed, refined, and tested. From this evolves a product for pilot testing.

This preliminary work – problem definition, qualitative research, concept development, product refinement into a prototype, and quantitative research on the prototype – is all completed *before* the pilot-testing phase begins. Once the prototype has been refined into a testable product, the MFI can begin the pilot testing process

Figure 11 : The Pilot-Testing Framework



The Pilot Testing overview in the previous diagram shows how the product testing process flows from a test-ready product through testing and feedback. Feedback from the test, when reviewed against the objectives, indicates what should happen next. Remember that crops have a season and duration, and preparation of the pilot test should be completed much before the season starts.

In one case, the feedback shows that the product does not meet the objectives. This is a very common scenario, at least for the first round of pilot testing. This result sends the product looping back through the process of financial projections, systems adjustments, product definitions, staff training and marketing.

In a loan product, growth may be significantly slower than projected. This might call for an adjustment to the method for determining initial loans, or a change in the application process to make it more customer-friendly, or changing the size of groups to better fit the local culture.

The Test continues as appropriate adjustments are made to the product and the product procedures. Depending on the results of the next round of feedback, the product might need to be adjusted again. The product features, procedures, or terms must be revised until all the objectives are met.

The feedback step is critical to making any decision about the future of the product. This step provides information about if and how well product objectives are being fulfilled.

Once the product meets the objectives, the Test can be considered successful and it can move on to the roll-out phase. This is hardly ever achieved the first time through the Pilot Test. In fact, there are times when, no matter how much adjusting the institution does, the product simply does not satisfy the objectives. Most often, such a product should simply be terminated.

After a product is rolled-out, the institution should continue to collect data and feedback from clients and internal sources. Such information will help management to further improve the product.

The Pilot Testing process can be broken down into ten steps that, if followed carefully, can minimise potential loss of control of the Test and provide valuable information that management can use to evaluate product success, and improve the product. If all steps are followed, management can dramatically improve the likelihood of a solid decision about the rollout of the product in its final form.

Key questions that should precede new product development

Prior to undertaking new product development, the institution should ask six essential questions. These are:

1. **Motivation:** Are we starting product development to make our MFI more market-driven?
2. **Commitment:** Are we setting about product development as a process?
3. **Capacity:** Can our MFI handle the strains and stresses of introducing a new product?
4. **Cost Effectiveness:** Do we fully understand the cost structure of our products?
5. **Simplicity:** Can we refine, repackage and re-launch existing product(s) before we develop a new one?
6. **Complexity and Cannibalisation:** Are we falling into the product proliferation trap?
7. **Ker risk related to Agriculture and Agricultural value chain:** Are we ready to take those risks? What is the impact level of different risks mentioned in table 10 below?

Table 10 : Categories of Major Risks Facing the Agricultural Supply Chain¹⁶

Type of risk	Examples
Weather-related Risks	Periodic deficit and/or excess rainfall or temperature, hail storms, strong winds
Natural disasters (including extreme weather events)	Major floods and droughts, hurricanes, cyclones, typhoons, earthquakes, volcanic activity
Biological and environmental risks	Crop and livestock pests and diseases; contamination related to poor sanitation, human contamination and illnesses; contamination affecting food safety; contamination and degradation of natural resources and environment; contamination and degradation of production and processes
Market-related risks	Changes in supply and/or demand that impact domestic and/or international prices of inputs and/or outputs, changes in market demands for quantity and/or quality attributes, changes in food safety requirements, changes in market demands for timing of product delivery, changes in enterprise/ supply chain reputation and dependability
Logistical and infrastructural risks	Changes in transport, communication, energy costs, degraded and/or undependable transport, communication, energy infrastructure, physical destruction, conflicts, labor

¹⁶ Jaffee, S., Siegel, P., and Andrews, C. 2010. "Rapid Agricultural Supply Chain Risk Assessment: A Conceptual Framework". The World Bank. Washington. D.C.

	disputes affecting transport, communications, energy infrastructure and services
Management and operational risks	Poor management decisions in asset allocation and livelihood/enterprise selection; poor decision making in use of inputs; poor quality control; forecast and planning errors; breakdowns in farm or firm equipment; use of out-dated seeds; lack of preparation to change product, process, markets; inability to adapt to changes in cash and labor flows
Public policy and institutional risks	Changing and/or uncertain monetary, fiscal and tax policies; changing and/or uncertain financial (credit, savings, insurance) policies; changing and/or uncertain regulatory and legal policies and enforcement; changing and/or uncertain trade and market policies; changing and/or uncertain land policies and tenure system; governance-related uncertainty (e.g., corruption); weak institutional capacity to implement regulatory mandates
Political risks	Security-related risks and uncertainty (e.g., threats to property and/or life) associated with politico-social instability within a country or in neighboring countries, interruption of trade due to disputes with other countries, nationalization/confiscation of assets, especially for foreign investors

Step 1: Composing the Pilot Test Team

Once the MFI has determined through market research using surveys, Focus Groups or Participatory Rapid Appraisal (PRA) that a new loan product is needed, and has developed a product concept management believes will satisfy that need. Key management and staff, perhaps even with the Board of Directors, have ascertained key features for this product and have a prototype design of how they want it to look and act. Now is the time for a Pilot Test Team to be organised, and the pilot testing process to begin.

Conducting a pilot test and then launching a new product is similar to a team sport in that individuals with different expertise come together, and as a group, they have a single goal. Therefore, a Pilot Test Team is crucial to the success of the pilot test. The first step to conducting a successful pilot test is to draw together a formal Pilot Test Team, which is ideally made up of individuals from each major area or department of the institution.

Who composes the Pilot Test Team?

This depends on the overall size of your MFI. In a large MFI, the person who puts together the Pilot Test Team may be the head of Research or the head of Marketing. In a very large institution, it may be the head of New Product Development. In a medium-sized or small MFI, it might be the Managing Director, Credit Manager, or a member of the Board of Directors.

Oftentimes the central person drawing the team together is the "Product Champion." This is the person with excitement and energy for the product who will pull it through all the problems and push for its success. The Product Champion also frequently serves as the "Team Leader" who must be prepared to lead his/her team, much like the Captain of a Football Team, through all the steps of pilot testing the product. S/he must be able to recognize the value of each Team member and maximise Team contributions for the value of the product and ultimately the company.

How large should the Pilot Test Team be?

The size of the Team depends on the size of the MFI. If your MFI has three to five key employees, then probably all of them will have roles to play and tasks to accomplish in the pilot testing process, and collectively will make up the Pilot Test Team. If your MFI is very large, then as many as ten key people may come together as the Pilot Test Team.

What is most important is that the composition of the Team represents all major departments of the MFI, and is thus a *representational* Pilot Test Team.

What do we need to consider in composing our Pilot Test Team membership?

Composing the Pilot Test Team can be problematic, depending on the size of the MFI. *Table 10* lists the skill areas needed on a loan product Pilot Test Team. Each of these skill areas is critical to the design and implementation of a successful loan product. For example, without someone skilled in finance and accounting, it will be difficult to adequately develop the projections for the new product. All of these skill areas must be addressed on a Pilot Test Team.

Table 11 : Pilot Test Team Skill Areas

Pilot Test Team Skill Areas	Individual	Title	Expected Level of Effort (days)
1. Product Champion/Team Leader			
2. Finance/Accounting			
3. Information Technology/MIS			
4. Marketing			
5. Training			
6. Operations/Management			
7. Credit/Management			
8. Credit/Frontline			
9. Research/Agriculture			
10. Audit/Controls			

If the MFI is very large, then a sizable pool of potential Test Team members with the necessary expertise probably exists within the institution. Where possible, the person taking on the responsibility for representing a Pilot Test Team Skill Area should be from a corresponding department. This results not only in bringing appropriate expertise to the role, but also in generating enthusiasm and a sense of “ownership” within the department.

The skill areas listed in *Table 10* are all the basic skill areas needed for a loan product. You should supplement the core team with people who have additional specific skills related to agriculture.

What will all these people do on the Team?

All Team members will have general and specific duties in relation to their department of representation. The general duties relate to providing input in meetings and other pilot testing fora to reflect the needs, opinions, and resources offered by their respective departments.

Additionally, there are specific tasks that members will be called upon to complete for the Team. It must be recognized that in the pilot test, the Team must be self-sufficient, covering all its needs within the Team or through co-opted members. The Team should not expect to simply delegate tasks to non-Team members and expect them to be concluded within the Team’s time frame.

For example, the Team will need to develop a Procedures Manual for the product. It would be unwise, for at least two reasons, for the Team to simply inform the Director of Operations (a non-team member in this example) that such a manual is needed, expecting her to have one developed:

- Only the Team members know the full details of the product, and therefore are the only ones who can fully address the various activities of the Test, and
- Only Team members are responsible (as per the TOR) for the outputs of the Test.

Step 2: Developing the Testing Protocol

Satisfaction of the desired results of the new product is the final destination of the Pilot Test. The testing protocol is the “road map” that will help your MFI get there. The Pilot Test Team should craft the testing protocol carefully. It

serves as your guide, and without it, you will be unable to navigate the treacherous waters of the Pilot Test adequately.

What is a testing protocol?

A testing protocol provides an outline for how the Pilot Test Team will manage the Test. It dictates the “terms” of the Test, such as the specific tasks and their requirements, and indicates precisely how and when the Test is monitored. It should also include guidelines under which the Test would be paused or terminated, and it specifies when other decision points have been reached.

In many ways, the testing protocol is based on the desired results as defined in the TOR. It formalizes the activities that lead to the results, and further defines the procedures and parameters for the Test itself by addressing each significant activity required for success, scheduling that activity, and allocating responsibility for getting it completed. In general, the protocol defines what will be done, by whom, and when.

What are the terms of the testing protocol?

The terms of the testing protocol should include at least the following:

- The anticipated number of customers that will be included in the Test
- The location of the Test
- The duration of the Test – commencement and completion dates
- Reporting dates
- What data should be analysed, and when
- Specific boundaries that may call for a pause or cancellation of the Test

The Team needs to consider all points of the testing protocol carefully in terms of the product to be tested and the specific market for the product.

How to determine the number of customers to include in the Test? How to decide location of the test?

It is important to have a large enough Pilot Test sample so that the results of the Test are representative. At the same time, you the sample should not be so large that it puts the institution at risk. The actual size of the sample for your Pilot Test depends on the size of the MFI and the number of offices or branches available. Multi-locational piloting is advised because of the change in cropping practices, weather condition, soil condition, and crop variety.

- *Multibranch* MFIs with disparate clientele: An MFI with a large branch network (>25) and highly disparate clients might Pilot Test the product in two or three areas. However, Multiple simultaneous testing carries the dual dangers of spreading the Team too thin, and effectively becoming an early roll-out.
- *Multibranch* MFIs with homogenous clientele: A multibranch MFI with fairly homogeneous clientele should choose one branch (easily accessible to the main office but not the main office) to run its Pilot Test.
- *Multibranch* MFI's with few customers at a given branch: For MFIs with a branch structure but with relatively few potential customers for the product at any one branch, more than one branch should be selected for pilot testing (this would also be true of some MFIs who work with clients in smaller groups).
- In these cases, it is often best to select the market areas of certain credit personnel, and hold the Test in those areas only. This is so that the company has access to a large enough pool of clients, but does not have to train all field staff on the Pilot Test product. Once the Pilot Test is concluded and the product deemed successful, others can be trained and the product can move incrementally to the rest of the branches. This facilitates control over the Test while limiting training and monitoring expenses.
- *Very small MFIs*: Some very small MFIs have only one or two market areas or offices. In this situation, it is reasonable to offer the product to all the customers of one office. But it should be made clear to all customers that this is a Test, that they may experience changes to the features and terms of the product, and that the product may even be cancelled.
- A very small MFI might, in fact, have to offer the Test product to all clients if there is an incumbent problem with separating clients using the same facility into “haves” and “have-nots,” which can create bad feelings

among an MFI's customers. Still, in some cases where an MFI has a single branch and many customers, it may be advisable to offer the product on a restricted basis. See the section below on how small MFIs can reduce their risks.

Step 3: Defining the Objectives

In order to determine the success or failure of the Pilot Test, it is essential that the objectives for the new product be clearly defined. This step is a two-stage process. Here, you will generate a list of general objectives, from which you will set specific targets based on the financial projections.

How specific should the objectives be?

Objectives should be very specific, quantifiable, provided with baseline data where appropriate, and cover the full period of the Pilot Test. Objectives specify the desired endpoint of the testing phase. Once the *general* objectives are defined (for example, "growth in numbers of loans outstanding") *specific target* within the objective is needed to aim for (for example, "2,400 loan accounts in twelve months"). With this level of specificity one will know where you need to aim and from there you can determine what you will need to do to service this volume of customers.

How do we establish clear product objectives?

Objectives define the critical success factors of your Test. When choosing objectives, think about them in terms of the MFI's and customers key factors of interest:

- Central issues of profitability
- Growth (in terms of volume of accounts and the value of their balances)
- Customer and institutional efficiency
- Customer service
- Effectiveness of marketing efforts

If all is right with these factors, it is likely that all is right with your product. Each MFI will have a very distinct set of objectives with regards to the specific values, or targets, assigned to the different objectives. However, because most institutions are focused on the above-mentioned central issues, the general objectives are likely to be somewhat similar among MFIs.

Step 4: Preparing All Systems

Many banks and MFIs are expanding operations to include computer-based systems. This can be an important step in expanding operations, but is not always needed, especially if your institution is a small one.

Step 5: Modelling Financial Projections

An MFI would want all its new products to be profitable, and profitability is one of the most important objectives for the new loan product. Given this objective, it is never appropriate to make a decision that will significantly impact the financial stability of the institution – like launching a new product – without first assessing its likely financial impact on the institution. This step will help the pilot Test Team to analyse the potential impact the new product will have on the financial position of your institution.

How does a financial institution usually make financial projections?

When projecting the geographical expansion, or even merely the continuation, of an existing product, management looks at the historical results of the product. If they are projecting for continuation of the product for the same market, they can extrapolate, based on its historical results, to get an idea of how the product is likely to behave in the future. If they are projecting for geographical expansion of the product into a new market, management can sometimes replicate, with minor adjustments, the initial stages of the product in the old market, to get a rough idea for growth in the new market.

This is a new product. How can we prepare financial assumptions if we have no experience with this product?

When a company decides to Test a new product, it has no historical data to draw upon in order to project costs and revenues. With a new product, the Team has no product-specific historical data. Thus, projecting for a new product is more difficult than projecting for an existing product. A new product also requires more careful monitoring by the Team once the Test is in progress because the projections are based more on assumption than history. However, during the pilot Test the institution quickly builds history on the account and becomes better able to predict future outcomes.

Many of the costing factors are easily determined, such as the direct costs of staff, training, fixed assets, and others. Indirect costs and overheads can be very complicated to assess and require expertise in costing methodologies. To do this properly, institutions will need to have an accommodating chart of accounts and applied allocation tables. Though this is a difficult process, it is critical for understanding the full costs of your product. There are several projections that can and should be made.

- **Transaction time projections:** This is part of defining specific objectives for the new account (see Step 3). Once there is a basic understanding of how the transaction will work, it is a relatively easy matter to project the average transaction time and to project the paperwork cost per transaction. This could be done as a paper walkthrough projecting the time required for each step of the transaction. The projection can be adjusted once the full procedures are written, and adjusted yet again once there is actual history of client transactions.
- **Cost of funds:** Based on the interest rate policy for deposit liabilities of the institution, and its source of lending capital (deposits, borrowing, other capitalization, donors), a cost of funds can be determined.
- **Earnings on loans:** This will be determined by the liquidity of the institution (i.e., a source of funds to originate loans), the investment policy, and the institutional capacity to both disburse loans and manage the portfolio. By combining the return anticipated from lending activities with your MFI's investment policy, and anticipated liquidity, your Team can project the earnings from customer loans. Remember your actual yield on loans will not be the same as the theoretical annual percentage rate. This is because loans usually are not outstanding for the full year, and there is often some delinquency.
- **Loan volume and value growth assumptions:** Ask yourselves: At what pace will this loan account progress to higher balances, and how much will people actually borrow? No one knows for sure, but educated assumptions can be made. To make these assumptions, your Team can examine several factors, which may include the following:
 - Growth rates from similar products introduced previously.
 - Growth rates for similar products in a similar market that might be available from different institutions (companies with an international network could potentially utilize this option).
 - Market intuition of operational and marketing staff.
 - Results of market research done with respect to the product.

As noted above, the reality Test must be applied to these projections. If your MFI has been operating for five years and has one thousand customers with an average outstanding balance of \$100, it is unlikely that in six months there will be a gain of one thousand more customers with an average outstanding balance of \$1,000, unless such an increase can be *realistically* justified. The key at this point is to have *reasonable and justifiable, though conservative, assumptions*.

Once the Test has commenced, the Team will be able to obtain actual data rather quickly through close monitoring. But be careful! The "curiosity effect" – customers borrowing from your new product simply because they are curious about it, but return to their prior borrowing source after one loan cycle – may skew early data. Keep a careful eye on renewing customers and drop out data.

Over time, actual data will supplant the historical estimated values. When that happens, and your Team re-projects the results, then the evaluation criteria from the Testing Protocol can be applied to the new numbers.

Step 6: Documenting the Product Definitions & Procedures

The Pilot Test Team has carefully defined all product objectives based on the desired product characteristics, the financial projections, and your institution's need for the product to not only break even, but be profit-generating as well. After this the Team is ready to document the product definitions and procedures.

Why should we document product definitions and procedures?

Clear documentation is necessary so that those who implement the Pilot Test will fully understand both the policies surrounding the product, and the procedures for its operation. Policy and procedure definitions must address all areas that affect the product or are affected by the product, including:

- Credit staff (with direct customer contact), and their supervisors
- Marketing
- Crop related process like duration of the crop, sowing time, harvesting time which will vary from one region to another
- Technical operations
 - Accounting
 - MIS/IT

Must this be a formal document?

Yes! In fact, before beginning the Pilot Test it should be in "near final draft" form. This is so that it will be comprehensive enough for the implementation of the Test, yet still a "draft," so managers are comfortable making reasoned adjustments. The realities of the Pilot Test will teach new lessons on implementation, which should then be used to update and further clarify the draft.

What format is best?

Your MFI should already have a formal Policy and Procedures Manual, and it is best from the beginning to draft the new product policies and procedures in the same format. When the Test is completed, the "near final draft" form of the new product policies and procedures can be presented to the appropriate authorities for approval (this is likely your Board of Directors), and it will then become part of the institution's formal Policy and Procedures Manual.

What kinds of issues should the document include?

This document should address all areas that affect or are affected by the new product. Normally, this includes front office credit operations, marketing, and technical operations, including accounting and MIS.

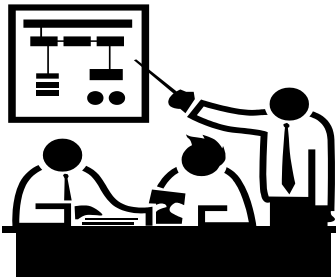
What should we include in Front Office Operations?

This section should detail all front office procedures, including all procedures that the credit officers, as well as their supervisors, will follow. Include detailed instructions on how to use the product-related forms, such as loan applications, payment slips, and fee slips, as well as the statements and delinquency lists. Document in detail the procedures for each different process relating to the product. With a loan product, these processes will include the following:

- Loan application
- Application Review and Assessment
- Farm details
- Credit officer documentation seeking loan approval after assessment
- Application approval (with specific instructions on who approves and what each looks for)
- Disbursement processes
- Payment processes
 - Manual
 - Automatic
- Loan report analysis

- Delinquency management
- Correction of posting/entry errors
- Imposition and posting of penalties
- Loan payoffs
- Interest calculation
- Supervisor approvals and authorizations
- Supervisory activities

Step 7: Training the Relevant Staff



Even with all the planning and preparation done in Steps 1 through six without proper training of staff, the Pilot Test likely will be disastrous. Your staff will be only as good as they have been trained to be. Nothing makes a worse impression on your customers than staff who do not know the product they are trying to sell, do not know the proper information to offer customers, or do not know how to assist the customers in opening or transacting new loan product accounts. Quality training is a key to quality customer service.

Why bother with training?

Effective training is essential to ensure:

- Standard application of policies by all staff in accordance with the manuals
- High-quality customer service
- Prompt, complete and accurate recording of transactions
- Optimal use of MIS to inform management decisions
- Effective, consistent and persuasive marketing
- Informed risk control through internal audit and systems

Who on our staff should receive new product training?

All relevant staff – meaning, all staff that have anything at all to do with the new product – must be trained to understand the product activities related to their particular responsibilities. Generally, “relevant staff” includes the following positions:

- Credit officers
- Agriculture officers
- Credit supervisors
- Branch manager
- Accountants
- MIS staff
- Internal auditors

What should they be trained in?

There are three basic training modules that you will need to prepare:

- Policies and Procedures
- MIS
- Marketing

How long should the training last, and how detailed and extensive should it be?

Some of this training will be detailed and extensive, like the training for tellers/cashiers and supervisors. Some of the training will be more cursory, like that for managers, accountants, MIS, marketing and internal audit staff who need an overview of the product details and the marketing.

In financial institutions, training usually has to be conducted “after hours” – in the evenings and/or over weekends. It is therefore important to prepare the training sessions and materials in advance and focus on communicating the key messages as quickly as possible. Many MFIs use a mixture of brief training sessions in the evening followed-up with hands-on “learning-by-doing” sessions the following day (see AMC Flexi-Loan Pilot-Test Training and Launch Plan below). Remember, every hour that you have staff away from their regular duties is an hour of cost to the MFI, and trainers should always remain cognizant of this.

It is also important to involve Head Office staff and to provide them some overview training on the new product – this will reduce the likelihood of the new product being misunderstood/under-valued by staff not directly involved with it. There should be one person from each area in this overview training. Those trained should return to their departments and brief their co-workers. From that briefing they will, within their departments, finalise their activities concerning the new product. For example, the internal audit attendee would return to her department and brief the staff there. From the briefing the audit staff would develop the plan for their audits of this product in the test site.

The different staff outlined above will need different levels of training – broadly as outlined in the table below.

Table 12 : Different Levels of Training for Different Staff

Staff	Policies & Procedures	MIS	Marketing
Credit Officers	Comprehensive	Comprehensive	Comprehensive
Agriculture Officers	Comprehensive	Overview	Comprehensive
Credit Supervisors	Comprehensive	Comprehensive	Comprehensive
Managers	Comprehensive	Overview	Overview
Accountants	Comprehensive	Comprehensive	Overview
MIS staff	Comprehensive	Comprehensive	Overview
Marketing staff	Comprehensive	None	Comprehensive
Internal auditors	Comprehensive	Overview	Overview

Step 8: Developing Customer Marketing Materials and Methods



Your MFI has a new product, and your Team has developed a testing protocol, defined objectives, identified systems, modelled the financial projections, as well as documented the procedures, and trained the relevant staff. The next step is “getting the news out.” That’s what customer marketing materials are all about – getting the news out to customers that you have a wonderful, new product that will solve some of their problems. It also includes all those unique activities and stationary that relate to customer service.

How do we start?

First of all, design and document an overall Marketing Plan¹⁷ for the Test. The Marketing Plan can consist of a simple, written outline of:

- Background:
 - Macro-Environmental Analysis
 - Micro-Environmental Analysis
 - Institutional Self-analysis
- Conclusions and Key Assumptions
- Strategic Objectives
- Core Marketing Strategies

¹⁷ See *MicroSave’s Product Marketing Strategy Toolkit* for a detailed description and example of a Marketing Plan.

- Key Product Policies
- Key Product Feature
- Activities and Results Expected
- Administration and Control/Budget
- How the Results will be Tracked and Analysed

Setting strategic marketing objectives

The strategic objectives of the Marketing Plan should reflect and complement the objectives of the Pilot Test. In addition, they should also be SMART: Specific, Measurable, Achievable, Reasonable and Time-bound.

Develop core marketing strategies and messages

Selling products is made considerably easier when approached in a systematic manner. There is a relatively straightforward method for preparing the key messages for a product marketing strategy. This approach is built on taglines, ultimate selling propositions, and benefit statements.

Benefit statements are central to the sales effort. Every marketing book relates that the customer looking for a drill is not really looking for a particular piece of equipment - he or she needs a hole in something. Your customers are looking for the end result. It is important to remember that customers do not buy products and services; they buy benefits or value they expect to derive from them. It is therefore important to list out the key product attributes and translate them into benefits to the customer. These benefits should reflect the results of your MFI's market research and understanding of the needs of the target market.

Step 9: Commencing the Pilot Test



If you have followed this Tool Kit step-by-step, then you have compiled a Pilot Test Team, developed and followed a testing protocol, installed all needed systems, modelled the financial projections, defined product objectives, documented product operations, and procedures, trained all relevant staff, and developed customer marketing materials.

You and your team have surely worked very hard and have accomplished a great deal by getting this far!

Congratulations! You are now ready to commence the Pilot Test.

Anything else we should do before we begin the Test?

Yes. The Pilot Test Team should meet and make a final review of all steps. Once the review is complete and the Team is satisfied that the requirements of all steps have been fully satisfied, the Team has two additional tasks to complete before the Test commences.

1. The first task is to draft a formal letter to the MFI's senior manager (likely the Managing Director) reviewing the preparation steps and informing him/her that the Test will begin as per the protocol.
2. The second is to draft an abbreviated letter to the managers of all branches and department heads to inform them that the Test is commencing. This note should include summary information about the product being tested and the site and timeline for the Test. It is important that all managers are aware that a new product is being tested so that they will understand new information that comes available and questions that their own customers might ask. In addition, it provides a formal notification to department heads to be prepared for any relevant activity within their departments concerning the new product.
3. Once the notifications are delivered, the Test should begin as structured in the protocol and Test guidelines.

4. Finally, **expect problems**. It is very rare for a Pilot Test to progress through the testing process without problems. The important thing is to have the Team ready, willing, and able to help, so that when problems arise, relevant Team members can address them immediately. So, for example, when the computer goes down, you have a Team member who is aware and can respond straight away. When the marketing brochures run low, a Team member can quickly address their replenishment.

Step 10: Evaluating the Test

Launching the Test is just the beginning. This is why we call it the “commencement” of the Pilot Test.

Your Pilot Test Team must now continue their work as they monitor and evaluate the performance of the new product. This is done through collecting and analysing information.

If your Team has completed Steps 2, 3, 4, and 5 carefully and diligently, this should not be complicated, but will require time and thoughtful analysis of the data, compared with the needs of the Test protocol.

What is the first step to evaluating the Pilot Test?

The first step is identifying what you need to track (done through the objectives in Step 3), creating systems to track it, then collecting and reviewing the data. The Pilot Test Team is responsible for ensuring the collection and review of all prescribed data.

Who should provide the data?

Collect data from the MIS department, department representatives, front line staff, marketing department, the manager of the Test site, and customers (both those who take the product and those who do not).

Summary reports should be provided to the Team members monthly, as scheduled in the protocol. The Team will also want periodic departmental reports noting any issues arising from the new product in the different areas within the institution.

Because your Team has representation from all areas of your MFI, each Team member should come prepared to provide product-related information about their area at each Team meeting.

How do we determine reporting dates?

In order for the Team to monitor the progress of the Test, the Team members will need to be regularly and formally informed.

At the beginning of a Test, short reporting periods may be appropriate so that the Team can act immediately to counter any problems that arise on introduction of the product. Thus, for the first two to four weeks of Test implementation, the Team should meet weekly, with weekly reports.

After that, assuming the Test has settled into a routine, monthly reviews and meetings are appropriate. These reviews should be based on month-end data.

If the duration of the Test is longer than six months, quarterly evaluations are also appropriate.

When should reports be given to the Team members?

Monthly reports should be provided to the Team within five business days of the end of each month, and the Team should meet within two days of receipt of the reports to discuss them and to make decisions based on the information gathered. It is important for the Team to receive timely information so that their review and decisions are relevant.

What is the difference between monthly reviews and quarterly evaluations, and what is their relative importance?

Monthly reviews provide data from relatively short bursts of activity. Remember that we said in Step 9 to “expect problems”. They allow the Team to see what is happening with the product, enable them to discern problems as they arise, and facilitate decision-making that keeps small problems from becoming huge ones.

Quarterly evaluations or evaluation during critical growth phases of the crop allows for a much greater degree of trend analysis. Trend analysis is helpful for making broader conclusions about the product. Thus, quarterly evaluations offer a point at which the projections may be re-written and significant decisions made about the progress of the test.

Then what?

Then, the information must be analysed carefully to determine if the product or its provision requires adjustment. In the case of serious problems, the Test may have to be suspended or discontinued.

What is involved in analysing the data?

When analysing the data, the first thing for all Team members to remember is that their loyalties should remain with the MFI and the integrity of the MFI, *not* with the product. No matter how much work has gone into putting everything together to conduct a Pilot Test of the new product, the purpose of the Pilot Test is to determine if the product is likely to be profitable for the MFI and thus if it should be launched at all.

Compare the actual data closely with the financial projections, with the formalized objectives, and the Pilot Test protocol. The protocol formally set the parameters for continuation, suspension, and termination of the Test. Review Step 2: Developing the Testing Protocol, about analysing the actual data against the protocol.

Make management decisions based on the facts that you learn, not on how much work has gone into planning the product test or how much you wish it is a good product.

We have collected all the data and have discussed it. What are the criteria for our recommendation about Test continuation and roll-out?

Once you have considered all the implications of the new product for the MFI as well as for the customers, you must decide whether or not to recommend going forward with the product launch.

After evaluating the Test results and the impact of the adjustments you have made during the Test, it is time to make a recommendation to the Managing Director (or the Board in the case of smaller MFIs).

Your Team must decide if this product will satisfy the fundamental need of the institution. Based on the analysis the Team has three general options:

- To recommend expansion of the product to other market areas. This should be done with revised financial projections and a roll-out plan, both directly reflective of the results of the Test.
- To recommend a continuation of the Test. This should be done if significant adjustments were introduced late in the Test (to correct for problems with the product or its administration), and results of the adjustments are not yet conclusive.
- To recommend termination of the product. This should be accompanied by a report evaluating the Test and the reasons for the termination recommendation. The Test is run so that the MFI can determine if the proposed product will satisfy its objectives. Even if the product is terminated, the institution will have saved itself from a likely large-scale problem. Do not fear a recommendation of product termination when it is warranted.

When the Team has decided on a recommendation, draft a formal letter to the Managing Director or the Board of Directors of your institution.

What are the components of a formal recommendation report to the Managing Director?

A formal report to the Managing Director that outlines the Team's recommendation should also serve as the "handing over" document and **should include at least the following sections** in this format:

- 1.0 Executive Summary
- 2.0 Recommendation with major supporting justifications. Justifications should include issues of:
 - 2.1 Institutional profitability
 - 2.2 Efficiency improvements
 - 2.3 Satisfaction of corporate and market needs
 - 2.4 Corporate image improvements
- 3.0 Full description of the product, its terms and condition, as well as basic data on product acceptance and customer attitudes about the product
- 4.0 Comparative projections to actuals objectives tables
 - 4.1 Discussion of any significant variance (>20% in either direction)
 - 4.2 Discussion of the reasons behind any significant projection adjustments made during the Test.
- 5.0 Discussion of the interrelationships of all significant departments with the product noting any material issues that arose during the Test and how they were resolved
- 6.0 Confirmation of procedures, policies and systems (software and hardware) from the internal audit department
- 7.0 Completed projections model based on actual data from the Test
 - 7.1 Note any anticipated deviations from the Test branch that are likely to be experienced in different branches
- 8.0 Discussion of potential risks to the institution posed by the product and its roll-out
- 9.0 Draft plan for roll-out, including procedures for addressing:
 - 9.1 Training
 - 9.2 Infrastructure
 - 9.3 Marketing
 - 9.4 Controls
- 10.0 Appendices containing:
 - 10.1 Full procedures manual section "draft" ready for corporate approval
 - 10.2 Crop details
 - 10.3 Training curriculum
 - 10.4 Systems manual (specific for the product)
 - 10.5 Copies of the sample contracts with stakeholders like farmers in case of contract farming or warehouse provider in the case of receivable financing
 - 10.6 Copies of all marketing documents
 - 10.7 Copies of all audit reports of the product
 - 10.8 Copies of Team meeting minutes

With this report and the documents attached, management will be able to make an informed decision about the product. Also, the department that "receives" the product will be fully informed about its history and status, have a plan for roll-out (which they should have had a hand in developing), and receive all the documents related to the product.

To ensure a smooth transition of the product after the handover, the Pilot Test Team should continue to work with the department to which the product is transferred (most frequently the Credit Department with respect to loan

products). The Team should continue to track and analyse the results from the Test branch for at least another six months, or as determined by the Team, based on the consistency of results.

The Team should also prepare projections for the product and its roll-out throughout the system in order to gain an understanding of the overall profitability of the loan product for the institution. These projections will be based on the actual data gathered at the roll-out branches.

Chapter 3 | Product Rollout



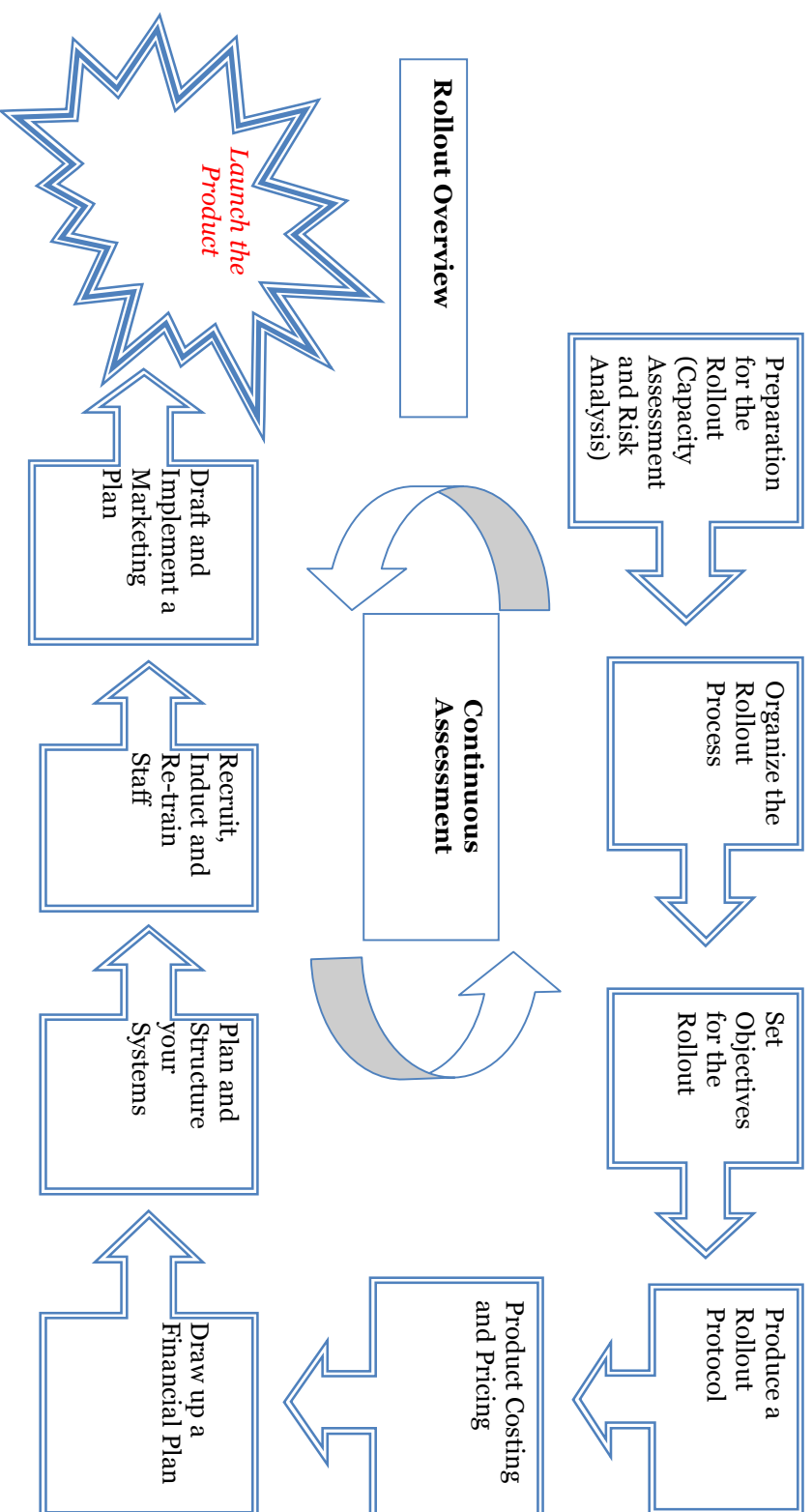
In the picture: Pumpkins for sale at a retailer point in one of the local market in the Philippines.

Chapter 3 discusses the process of product roll out after successfully pilot testing the prototype. This step is crucial because it will impact the organization both operationally and financially.

Product rollout

When we speak of rollout we are talking about the whole process of moving a product from the successful conclusion of the Pilot Test, to the point where it is fully operational in all desired locations, and has an established continuous feedback loop providing data for management decision making. It is a process, with multiple steps, whether we are considering a new or restructured product. Rollout is much more than simply the launch of the product. It includes the preparation leading to the launch, the launch itself, and product management after the launch, all of which are equally important.

Figure 12: Product Rollout Framework



Step 1: Formation of the Rollout Team and Terms of Reference

Who should move from the Pilot Test Team to the new rollout team?

For pilot testing a Pilot Test Team was composed from all relevant departments to facilitate both the efficiency and effectiveness of the Team as well as to build a knowledge base within the departments. Full Pilot Test Team participation is not necessary once rollout commences.

Table 13: Rollout Team Members

Pilot Test Team Skill Areas Required	Pilot Test Team Skill Areas Required for Rollout	Operations Staff Required	New Rollout Team Members
Product Champion/Team Leader	Product Champion and agricultural expert		Product Champion
Finance/Accounting		Accounts officer	
Information Technology/MIS	Information Technology		Information technology
Marketing	Marketing		Marketing
Training	Training		Training
Operations/Management		Departmental Senior Management	Departmental Senior Management
		Departmental Product Manager / Team Leader	Departmental Product Manager / Team Leader
Operations/Frontline		Departmental frontline	Departmental frontline
Research/Agriculture	Qualitative and quantitative research/knowledge about agriculture		Departmental frontline
Audit/Controls			Departmental Manager

- *The Product Champion*, who is a senior member of management, is retained because this is the person who best knows the product and has managed the coordination through to the current point. However, during the transition phase the leadership of the overall Team must shift to the person who will be responsible for the product within the department. This transfer of leadership should occur soon after the recommendation is approved and at the discretion of the *Senior Departmental Manager*.
- The Rollout Team composition will include *Marketing* and *Training* since these are the most critical areas outside the department.
- *MIS* remains on the Team if the product is computer-based because of the intensive input required by MIS in ensuring that systems are fully tested and operational in all new sites.
- It is also likely that some of the *staff of the operations department* who participated in the Pilot Test Team will be included on the Rollout Team as representatives of the department.
- The *finance, research, and audit representatives* have been removed from the new Rollout Team. This is not to suggest that these departments no longer have a role with the product, simply that their role should be institutionalised based on activities from the Pilot Test. Their processing and monitoring roles remain critical. However, it is unnecessary to have these representatives attending Team meetings unless there is a specific issue the Team needs them to address.

What is the responsibility of the Rollout Team?

Once the Board approves the new product rollout, the Rollout Team’s responsibility is to get the product rolled out throughout the institution (or those parts of it as determined by the board). The departmental representatives are specifically charged with the implementation of the product. Marketing is charged with development and implementation of the marketing plan. Training is responsible for the full training of all staff on all relevant aspects of

the product. MIS is charged with ensuring full functionality of hardware and software systems including installation, testing, and connectivity (where required).

Step 2: Preparation for the Rollout

Like pilot testing and the other steps in product development, there is significant preparation required in planning rollout. It is more than deciding who to invite to the launch event and what the brochures will look like. Good preparation is essential to every successful rollout.

Capacity assessment

The first thing to consider when planning the Rollout is if the institution has the capacity for rolling out this product.

But, we had a successful Pilot Test. Doesn't that prove that the institution has the capacity for rollout?

Not necessarily. *Capacity must be assessed and reassessed at every step of the product development process*, based on the experience and lessons learned from the previous step and a review of the new status of the organization. Many things can happen that can unexpectedly, if only temporarily, weaken an institution's capacity for product development activities. Consider this example:

In one company, at the start of the product development process, their capacity and potential for new products seemed strong. By the end of the pilot test phase, management had seen dramatic staff attrition - resulting in portfolio-at-risk dropping to PAR 30 = 10%. With new staff and middle management needing focus to clean up a serious problem, management decided to delay rollout of a new fixed asset loan product until the institution returned to stability and built additional capacity through training and experiential learning.

Capacity may seem fine at one point, but MFIs can be highly dynamic with dramatic fluctuations in capacity. Continuous assessment of capacity, therefore, is prudent management strategy, and is especially important when considering rollout of a new product.

What is involved in assessing our institutional capacity for rollout?

In assessing capacity, the MFI needs to look at several factors.¹⁸ Reproduce and use the table that follows in assessing your MFI's capacity for rolling out a new product.

Table 14 : Capacity Assessment and Questions to Ask

Capacity Assessment Areas:	Questions to ask:	Yes/No?
a. Institutional Strategy	Does the product still fit within the Company's strategic plan?	
	Based on results from the Pilot Test, does the product satisfy strategic planning objectives relating to product return expectations?	
	By the end of the Pilot Test did the product satisfy the product objectives in terms of growth, customer satisfaction, and product quality?	
b. Financial Viability	Has the Pilot Test created any liquidity management problems that have not been completely resolved?	
	Is the institution's Asset/Liability management team including the new product in its assessments, and is it projecting for the impact of full rollout? Do the projections confirm ability for effective management during and after rollout?	
	During the Pilot Test, has the impact of the new product on portfolio-at-risk, or	

¹⁸The basic structure for this assessment is adapted from the "Guide to New Product Development Institutional Diagnostic", by Zan Northrup and Monica Brand (ACCION, forthcoming).

Capacity Assessment Areas:	Questions to ask:	Yes/No?
	savings volatility, remained within acceptable limits (as per policy guidelines and the strategic plan)?	
	Has operational efficiency of the new product improved during the Pilot Test and reached acceptable limits? Is overall institutional efficiency projected to improve with rollout? Calculate this as Operational Expenses related to the new product over the average size of the portfolio (loan or savings). Calculate as month-to-month through the pilot testing period and review the trend.	
	Do projections based on the reality of the Pilot Test show significant improvements in institutional profitability relating to the rollout of the new product?	
	Has the institution assessed the level of cannibalisation of the new product on any pre-existing products, and has this been both deemed acceptable and included in rollout projections?	
c. Organisational Culture	Is there an efficient feedback mechanism that provides the team with timely and complete data about the team and which leads to management utilization of that information in decision making? Cite examples in your consideration of this point.	
	Has Pilot Test staff closely followed the draft procedures manuals and adjustments to it and is the rest of the staff likely to follow the formal procedures?	
	Are management and staff (at all levels) positive about the new product and their role in its implementation? If not, has an internal marketing plan been developed to mitigate problems this might cause?	
d. Human Resources	Have the issues of change management within the institution been identified and addressed to minimize problems on rollout?	
	In some cases where a new product is significantly more efficient and designed to replace a more labour-intensive product, there will be issues of personnel redundancy. In such a case, does the institution have a plan to address this both initially in terms of staff morale, and in the long term with regards to addressing the redundancies and extracting the full value of the product?	
e. Delivery Networks	Do the product delivery networks – from the product development team to the branch management to the front line, through the back office and to management – work efficiently? Have any weak links (frequently the front line to the back office) been fully addressed?	
	Are the delivery networks developed during the Pilot Test fully replicable to all branches where the product will be rolled out? If not, has a plan been developed to Test whatever adjustments are required?	
f. Systems	Are electronic or manual systems completely reliable for the Pilot Test?	
	Are front and back office staffs fully confident about the ability of the system to manage the new product?	
	Based on the reality of the Pilot Test and the rollout projections, does the system have at least twice the capacity required to handle the projected transactional activity?	
	Has the audit department signed off on the controls related to the system?	

MFI management should be able to answer *all* of these in the affirmative if the new product is really ready for rollout.

Key considerations for a successful rollout

Several key ingredients must be considered for a successful rollout. Without these, it will be very difficult to achieve success.

- a. **Management commitment:** Management commitment is what allows the process to move smoothly towards success. When management is committed, key rollout personnel will not be diverted and they will have incentive to achieve.

Box 3 : A Tale of Two Rollout Branches, or: Why Management Commitment is Critical to Success

In a multi-branch microfinance institution, the growth numbers of a product being rolled out in one branch were significantly lower than anticipated. When asked why this was the case, the regional manager remarked: “If my boss (the operations director) does not like this product, why should I push for it?” Management’s open opposition to the product created a disincentive to rollout success! In another case, an MFI branch demonstrated extraordinarily positive responses to a product being rolled out – significantly more positive than other branches of the same institution. The branch manager held training meetings for all his staff, and he emphasized his commitment to being the best branch for this product in the system. He even frequently sent his tellers out marketing when the front office was slow. If the tellers went out to market the product during lunchtime, he would give them lunch money from his own pocket. Strong commitment from the manager to both the product and the staff was very clear, not just through words, but through action. The result? A powerful team effort at the branch, and significantly stronger product growth than at all other branches.

- b. **Project management skills:** Preparation, launch, and follow-up (the three components of rollout) become rather complicated when rollout hits different branches at different times. Managing and monitoring the Pilot Test in one or two branches carries its own complexities, but the controlled rollout of a product to tens or even hundreds of branches requires significant project management skills. Project management skills can help this process to move more smoothly.



One way to manage this process is through critical path analysis using Gantt or PERT charts. This analysis will help the MFI to identify the critical and non-critical steps required in the process of rollout. Understanding these and their timing will help the MFI to manage the process. A detailed example of Critical Path Analysis is provided in *Appendix 1: Critical Path Analysis (with Gantt and PERT Charts)*.

- c. **Flexibility:** Let us assume that you have tested the product in one, maybe two branches. Your team has worked out the issues and the product seems to be working fine. Now you are finding that every branch is unique, making each new rollout a bit different. These anomalies may result from:
- *Staff and management capacity, quality, or incentive.*
 - *Market characteristics* such as local competition or market density.
 - *Cultural issues* such as who should promote the product in the community (sometimes government officials are the right people, other times they are completely wrong, and you should use local business or tribal leaders instead).
 - *Infrastructural issues* such as the ability to keep a computer running for a new computer-based product.
 - Potential *client perceptions* of the MFI/bank or its products.

All of these issues require flexibility on the part of the Rollout Team.

Although the product will remain essentially the same, the team will need to assess each particular rollout branch and address its anomalies before finalizing the rollout plan with them. Without flexibility in implementation, the product will have difficulties as it is rolled out in individual branches. This is not to say that the core product attributes and procedures are to be changed at each rollout location. These are fundamental to the product and cannot be changed. What can be altered is the way the product is marketed, the way the staff and management are trained and incentivised, and the satisfaction of infrastructural requirements.

- d. **Infrastructural implications:** When assessing the individual branches for rollout there will be certain minimum requirements for each branch. These are critical factors in determining the ability to rollout in that branch. Some of these requirements might include (depending on the requirements of the specific product):
- *Office size* – Is there enough space to accommodate the anticipated number of new clients? If not, what will be the financial impact of enlargement?
 - *Utilities* – Is there an adequate supply of electricity, and is it consistent? If not, what are the cost implications of bringing electricity to the office? Do these fit with the institutional objectives on profitability?
 - *Market* – Is there enough market to make the financial investment in preparing the branch worthwhile? This should be reviewed against managerial objectives.

Postal Banks often have two kinds of branches. They have branches that the Postal Bank owns and operates, and postal bank “units” that are owned and managed by the National Post Office for a fee from the Postal Bank. When rolling out a computerised product that requires significant oversight, it may make sense not to roll out the new product in the postal units because the cost involved in outfitting them with computers, and training and supervising their staff, may be far in excess of the earning potential from the product at that unit.



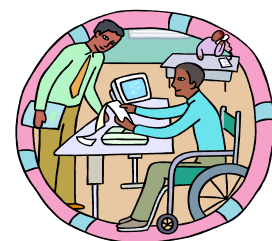
Do not assume that just because the institution has a new product that the product must be offered in every location. A new product should not be offered in a location if the institution loses money due to the costs of needed adjustments, building, training, or management.

- e. **Central bank restrictions:** In some countries, central banks set restrictions on the amount of cash that can be held in a single branch, the amount of fixed assets the institution can acquire relative to institutional capital or assets, or other restrictions. These can be highly limiting and difficult to manage. One institution was under pressure to reduce its level of fixed assets to capital. At the same time, they were testing an automated system that required computers, printers, UPS's, and, in some cases, generators. This regulatory issue had to be addressed if rollout was to be successful.

What else should be done before/during/after rollout?

Remember that in developing any product, there are several aspects to consider. The core inputs to rollout include:

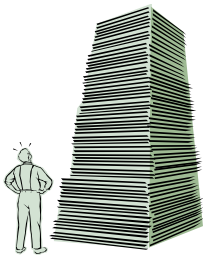
- Formalising procedures,
- Developing financial projections,
- Finalizing marketing strategies,
- Training staff, and
- Preparing systems.



For many reasons, some organizations will try to push ahead with rollout without concluding these inputs. They think that formal procedures can wait, or that they already know how to do a launch, or even that financial projections can wait, or that training can be “on-the-job”. This is a mistake and most MFIs invariably will make unnecessary, often costly errors. Take the time necessary to

carefully move through these steps, particularly marketing strategies, staff training, and system preparation. We will go over these aspects later in this Tool Kit.

How do we make the transition from the Pilot Test to rollout?



Recall that the Pilot Test concludes with the preparation of a “Recommendation Letter.” In truth, calling this document a “letter” is a misnomer. It really is more like an epic and it may be more appropriate to consider it as two outputs: the “Recommendation (cover) Letter” and the “Hand-Over Package.” The Recommendation Letter goes to the senior manager who then presents it to the board for a vote on the future of the product. If it is complete, the Hand-Over Package will contain all the critical information and tools that are required for rollout. These should have been compiled during the Pilot Test phase in steps and iterations as more was learned about the product and how it responded in the real market.

By following this process, the development of the core inputs to rollout will be complete in plenty of time and rollout will not be delayed. If the institution moves ahead without formalizing procedures, the rollout will lead to confusion, with different branches operationalizing the product in different ways. With no strong marketing plan, marketing and growth will be weak, since each branch will have to design its own marketing strategy. Without a solid training curriculum, training will be haphazard and lead to unacceptable and costly error levels. Skipping the critical steps will cost a great deal in terms of efficiency and control.

Because the Letter of Recommendation and the Hand-over Package are so important for the efficient and smooth rollout of the product, these will be discussed in the next section.

The Hand-Over Package

Transferring the new product from the Pilot Test phase to the rollout phase can be smooth and efficient if the appropriate information is collected during the Pilot Test, and all the formal documents are drawn up. If the Pilot Test Team has done all that was expected of them by their protocol, then handing over the “keys” will be easy.



Although there is a cover letter that accompanies the documents, the package as a whole is more properly thought of as a “Hand-Over Package.”

That said, the resulting document is complete only if it contains virtually everything needed for rollout. If the Pilot Test Team organizes and compiles the necessary information as they move the product through the Pilot Test, the final collection of documents can be an amazingly efficient tool that requires little work between the Pilot Test and the rollout.

For ease of reference, we will now split the Hand-Over Package into two pieces: the few pages of the Letter of Recommendation, and the larger Hand-Over Package.

An overview of the Letter of Recommendation and the Hand-Over Package

The Letter of Recommendation is divided into two parts:

- | | |
|-----|---|
| 1.0 | Executive Summary |
| 2.0 | Recommendation with major supporting justifications. Justifications should cover these issue: |
| 2.1 | Institutional profitability |
| 2.2 | Efficiency improvements |
| 2.3 | Satisfaction of corporate and market needs |
| 2.4 | Corporate image improvements |

The Team's "Hand-Over Package" should include at least the following sections in this format:

- 1.0 Full description of the product, its terms and conditions, as well as basic data of product acceptance and customer attitudes about the product
- 2.0 Comparative Pilot Test projections to actual results of objectives tables
 - 2.1 Discussion of any significant variance (>20% in either direction)
 - 2.2 Discussion of the reasons behind any significant projection adjustments made during the Test.
- 3.0 Completed projections model for the Rollout based on actual data from the Test
 - 3.1 Note any anticipated deviations from the Test branch that are likely to be experienced in other branches
 - 3.2 Include specific objectives for the Rollout
- 4.0 Discussion of the interrelationships of all significant departments with the product noting any material issues that arose during the Test and how they were resolved. This will provide important input in the preparations for and implementation of Rollout.
- 5.0 Confirmation of procedures, policies, and systems (software and hardware) from the internal audit department. The product should not move beyond the Test phase without a comprehensive review and approval by the internal auditors. If there are no internal auditors or the internal auditors are not fully capable of such a review, external auditors should be contracted to complete this step.
- 6.0 Discussion of strengths, weaknesses, opportunities, and threats to the institution posed by the product and its Rollout. This will give the Team and the operations department a quick summary of the product and its needs during rollout.
- 7.0 Draft plan for Rollout including scheduling of the process (see Appendix 1 on Gantt and PERT charts), including procedures for addressing:
 - 7.1 Training
 - 7.2 Infrastructure
 - 7.3 Marketing
 - 7.4 Controls
- 8.0 A detailed marketing plan for the product Rollout.
- 9.0 Appendices containing:
 - 9.1 Full procedures manual section "draft" ready for corporate approval
 - 9.2 Training curriculum
 - 9.3 Systems manual (specific for the product)
 - 9.4 Copies of all marketing documents
 - 9.5 Copies of all audit reports of the product
 - 9.6 Copies of Team minutes

Because each of these steps simply reflects activities that were to be drafted in preparation for the Pilot Test and then refined throughout the Pilot Test, *the preparation of the Hand-Over Package should be a compilation and quality control exercise rather than a large writing task.* Doing it this way also assures that the procedures and plans developed are based on actual Pilot Test results rather than being quickly thrown together in order to satisfy a formality and get the rollout moving.

Step 3: Organising the Rollout Process

How do we organise the rollout process?

Remember that the Pilot Test process was governed by a protocol. Rollout also needs a protocol to guide the process. Later in this section, we will discuss the components of a Rollout Protocol. Your Team will first need to choose a process method. Below, we review various process methods (also see Appendix 1). Choice of rollout process method must be made before a protocol can be drafted, as key components of the protocol depend on this decision, especially with respect to the scheduling of activities.

Shall we rollout in phases? We are anxious to get our product out to the customers. May we roll out the product all at once, or is it better to do it in phases?

After spending six months, twelve months, or even more in the Pilot Test phase, most managers are anxious to get the new product out to the market quickly. The Pilot Test has demonstrated the possibilities offered by the product,

and they want to realize those opportunities immediately. Unfortunately, in most cases this is not the most prudent method of Rollout. Most institutions will need to *phase in* the new product.

With savings and credit products and services, especially those that are tied to a computer system, it takes longer to make sure staff are trained, confirm that the systems are in place and working, and ensure that limited support staff can assist with the rollout in each location. Capacity remains the biggest issue here, and the determining factor in deciding whether or not to roll out to all branches at once.

Remember, during the rollout and follow-up phases there will be problems – some significant, some petty. The overriding question is: When there are real problems in the rollout, how will we be able to address them?

How can we be certain that phasing in our product is the best way to proceed?

Use Table 13: *Key Questions* to help determine your ability to address problems in the rollout, and thus better understand the need to roll out in phases.

Table 15 : Key Questions

How many branches are there to rollout to?	The more branches you have the more likely it is that you will need to rollout in phases.
How much technical input is required in setting up for rollout?	The more technically complicated the product the more likely it is that you will need a technician on site for the rollout. The number of technicians you have will determine your rollout speed.
Are you using software that your company developed?	If you have developed your own software remember that one installation is not sufficient to deem software completely stable. The new rollout branches will still be Test Sites for the software and will require phased rollout, at least in the beginning.
Are you using “off-the-shelf” software that has been proven in many installations?	If you have an unadulterated off-the-shelf system this will allow for more rapid rollout. If you have significantly altered the system, initial rollout should be phased to allow for testing the adjustments at different sites.
Are you using a module of a software package that your institution is already using?	This is an excellent choice since staff is already familiar with the look and feel of the software, and the main system is already in use at the different rollout sites.
Are you using a manual system?	Training and confirmation of controls are often more critical here. Staff in the rollout branches requires more detailed training, and management needs more extensive training on the controls of the manual system.
How far are the rollout sites from the head office?	The further the rollout sites are from the head office, the better it is to roll out in phases, since support staff will be unable to travel long distances efficiently in order to address rollout issues.
Are you already offering a similar product, or is this product simply a re-engineered product?	The wider the gap between products the institution currently offers and the new product, the more likely it is that you will need to roll out in phases.
What is the level of capacity of the branch staff that will implement the product?	The more flexible your staff is in managing multiple products, the easier it is for them to understand and manage another product. However, you need to assess the possibility that a new product will overwhelm your staff and overall productivity will be reduced. The productivity of staff during the Pilot Test should be a good indication of their capacity to take on a new product. The greater their capacity the more likely it is that you can roll out more rapidly.
How much infrastructural adjustment is required to offer the new product?	Commercialisation is a popular goal for MFIs now. This usually requires instituting a Savings Department with all the management, staff, and infrastructural issues that such a move implies. For a company that had previously offered only credit

	products, this is a major infrastructural adjustment. This kind of change in infrastructure cries out for a phased rollout since there are so many issues that could be problematic during the rollout itself, possibly posing serious risks to the institution and the clients.
Can the projected cash flow be adequately managed by the MFI?	This is an important issue. With both loan and savings products, a new product can greatly alter cash flow. After a Pilot Test, the MFI will have a better indication of the potential cash flow issues during rollout. Caution is critical. MFIs have been observed to roll out a new loan product not recognizing that cash flow projections would have shown that there was not enough funding to manage the product. How embarrassing it is to have to cancel a new product because there is not enough money to fund it. In addition, managing excess liquidity from a new savings product creates a problem for an MFI that might not have a strong treasury function. Idle money can have a rather negative impact on a company's income statement.

Methods of a phased rollout

Generally, there are several methods an institution can use for a phased rollout. Three of the most common are:

- A **fixed-period rollout** where an institution simply offers the product in a new branch after a fixed time-period. Institutions using this method might choose to rollout the product to a new branch each month, for example.
- An **accelerated phased rollout** where an institution begins rollout at a careful pace and then accelerates rollout as they clean up problems that arise and become more comfortable with the rollout process.
- A **regional phased rollout** approach where an institution rolls out the product at one time to all branches in a geographical region.



Table 14: Rollout Method Comparisons below shows the pace of rollout using the three different approaches.

Table 16 : Rollout Method Comparisons

Rollout Method Comparisons												
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Fixed Method												
Rollouts per month:	1	1	1	1	1	1	1	1	1	1	1	1
Cumulative Rollouts:	1	2	3	4	5	6	7	8	9	10	11	12
Accelerated Method												
Rollouts per month:	1	1	2	2	3	3	3	4	4	4	5	5
Cumulative Rollouts:	1	2	4	6	9	12	15	19	23	27	32	37
Regional Method												
Rollouts per month:	2	0	3	2	4	4	3	3	5	4	2	5
Cumulative Rollouts:	2	2	5	7	11	15	18	21	26	30	32	37

How can we choose the best method for our institution?

The choice of method is a function of the issues addressed in the *Key Questions* table above. For most institutions, rollout capacity is built rather quickly since much of the rollout process is the same for each branch. Therefore, the Accelerated Method is usually the most appropriate choice since it gives an institution time to work out any rollout issues or problems and build rollout capacity. Then the institution can speed up the rollout based on their assessment of capacity.

The Regional Method is an accelerated method that may be most appropriate for MFIs with tight clusters of branch activity at a distance from the head office. In these cases, the required team members would go to a regional area and rollout the product in the different branches in that region. This can make rollout more efficient and still retain the benefits of the Accelerated Method.

Another MFI has branches in the northern region of a large country. Within that region, there are several branches, on average about one hundred kilometres distant from each other. Even though this is a “region” for the MFI, it would be more appropriate in the context of product rollout to treat these branches as separate units, although some activities may be efficiently combined, such as training.

Things to remember:

- Rollout pace should always be based on the capacity of the institution and the rollout branch staff.
- Each rollout is a bit different. The Rollout Team must recognize this and adapt the rollout and the planning to those differences.
- When problems occur, make sure there is enough time to correct them so that the lessons can be applied to subsequent branch rollouts.

Branch rollout

How do we determine the order of branch rollout?

There are several issues to consider when determining which branches to rollout to first. Among the most important are the following:

- **Infrastructure needs and opportunities:** Can the site infrastructure maximize the technological opportunities of the product? For example, if the system can be networked from the head office, some branches may have the infrastructure for networking and others may not. Those that have the infrastructure for networking should be the first to receive the product.
- **Market demand:** Is there significantly more demand for the product in one area than others? This demand should be satisfied first, if practical.
- **Geography:** It is likely that the first rollout branches will require the most Rollout Team input. Thus, the head office will be better able to rollout in branches that are geographically close.
- **Profitability:** Fundamentally, the product is intended to improve profitability of the institution. The product should be rolled out first in the branch where it is likely to show the most profit. A corollary to this is that branches in which the product is not likely to be profitable should not get the product at all.
- **Management and staff demand:** One of the most powerful factors of success for a new product is the eagerness of branch staff and management to make it work. This factor should be seriously considered in rollout planning.
- **Natural hazards:** In the Philippines this is one of the most important criteria for rolling out a agriculture value chain product. There are particular seasons when the number of typhoon is very high and should be avoided for roll out.

A simple decision-making grid can help in determining the order of branch or region rollout. An example where weightings are applied to the factors to indicate their importance to the MFI is provided in *Table 15: Sample Rollout Order Worksheet*.

Table 17 : Sample Rollout Order Worksheet

	Distance from head office (in Kms)	Networking (time to network in months)	Infra-structure	Market Demand	Geography	Profitability potential	Natural calamity	Score
		Weightings	7	5	3	10	10	
Branch 1	135	networked	5	5	2	4	5	111
Branch 2	20	within 4	3	3	5	2	1	72
Branch 3	75	not networked	1	2	3	2	2	48
Branch 4	125	networked	5	4	2	3	4	95
Branch 5	60	within 4	3	3	3	3	3	78
Branch 6	90	within 8	2	1	3	1	1	39
Branch 7	35	within 12	2	4	4	4	1	87
Branch 8	30	networked	5	3	4	4	1	103
Branch 9	160	networked	5	3	1	3	1	84
Branch 10	5	within 1	4	5	5	5	1	119
Branch 11	45	within 4	3	4	4	4	4	97
Branch 12	100	within 8	2	2	3	3	4	67
Infrastructure:		1 = very poor with no networking capability 5 = currently networked						
Market Demand:		1 = no active demand for this product 5 = very strong demand relative to other branches						
Geography:		1 = more than 150 Kms 5 = less than 25 Kms						
Potential Profitability:		1 = break even expected but no more within 1 year 5 = break even plus from first month						
Natural Calamity:		1= low occurrence 5=High occurrence						

This institution decided that the most important requirement was profitability and incidence of natural calamity and thus gave it a ten out of ten in the weightings. The next most important requirement was infrastructure because although the general infrastructure of the branches is similar, the new product can be networked and they want to network it where possible. Market demand was weighted in the middle because the institution, recognizing this was a new product that would be substituted for their old product over time, considered this a product driven by technology that would ultimately benefit all clients. Finally, because this institution had reasonably easy access to its relatively close network, geography was the least of their concerns.

In rolling out a new agricultural value chain-financing product, seasonality might be an important factor. In the Philippines, September, October, and November, December are poor months for rolling out a savings product because money traditionally haemorrhages out of the household for Christmas and school fees during this period, and most people have little left over to save. Also these are the months when the incidence of typhoon is very high.

Similarly, loan products are likely to be affected by seasonal patterns – particularly in rural areas. Many market traders need loans before religious festivals (Christmas, Eid, Holi etc.) to stock their stalls.

Step 4. Setting the Objectives for the Rollout

In order to determine the success or failure of the Rollout, it is essential that the objectives for the new product be clearly defined – on a branch by branch basis. This step is a two-stage process. Here, you will generate a list of general objectives, from which you will set specific targets based on the financial projections.

What do formal objectives “do” for us?

Clearly defined objectives provide key indicators that are important for at least two reasons:

- They help the Rollout Team to recognize quickly if the product needs any remedial action or adjustments during the Rollout.
- They provide criteria against which the Team can interpret the results of the Rollout.

Product objectives

The objectives are usually closely related to, if not exactly the same as, those of the Pilot Test because the initial objectives made for the product during the Pilot Test were clearly related to long-term objectives of the institution. It may be that an additional objective or two might be added to reflect the issues of rollout.

The objectives are different from the targets that clarify them, and so certainly the targets will be different for rollout than for the Pilot Test. Additionally, there should be a set of objective targets for the whole exercise, and there should be a set of objective targets that relate to each administrative unit (branch, region, or other). These micro-level targets should accumulate to satisfy the targets of the institution as a whole. The objectives for all levels will be the same. It is simply the targets that will be adjusted by unit.

How do we establish clear product objectives?

Objectives define the critical success factors of your Rollout. When choosing objectives, think about them in terms of the MFI’s and customer’s key factors of interest:

- Central issues of profitability
- Growth (in terms of volume of accounts and the value of their balances)
- Customer and institutional efficiency
- Customer service
- Effectiveness of marketing efforts

Do we need to consider the impact of our staff incentive scheme on our objectives?

Yes. The existence of a staff incentive scheme can significantly impact on the performance of targets set for the new product. This is especially true if staff members are incentivised for achievements on existing products and not for performance on the new product. The MFI may decide to introduce specific incentives for the duration of the Pilot Test, or simply to adapt its existing incentive scheme to accommodate its new product.

Box 4 : *MicroSave’s* Toolkit for Designing and Implementing Staff Incentive Schemes in Microfinance Institutions

Well-designed staff incentive schemes can have positive and powerful effects on the productivity, efficiency and quality of MFI operations. Conversely, poorly developed schemes can have serious detrimental effects. Incentive schemes must be transparent so that staff members affected can easily understand the mechanics of the calculation. Thus the system should not be overly complex and should contain as many objective factors and as few subjective variables as possible. Furthermore, the “rules of the game” should be made known to everyone and should not be changed arbitrarily. In addition, it is essential that the incentive scheme be perceived as being fair, and thus the goals set out by the scheme must be attainable, and better performing staff members must indeed be rewarded with higher salaries. Finally, everyone must be able to achieve a higher compensation by working better and harder.

This *MicroSave* toolkit provides a detailed examination of:

1. The Theoretical Background of Staff Incentive Schemes
2. Basic Building Blocks for Staff Incentive Schemes
3. Principle Design Questions for Staff Incentive Schemes
4. Incentive Schemes for Different Functional Areas in MFIs
5. A Step-by-Step Approach to the Design of Incentive Schemes
6. A Cost-Benefit Analysis of Incentive Schemes
7. Incentive Schemes in Other Areas of Microfinance

Step 5: The Rollout Protocol

How it differs from the Pilot Testing protocol

In general, a protocol defines what will be done, by whom, and when. It formalizes the activities that lead to the results and further defines the procedures and parameters for the rollout itself by addressing each specific activity required for success, scheduling that activity, and allocating responsibility for getting it completed. The Rollout Protocol is very similar to the Pilot Testing Protocol in its objectives and structure.

The typical format for the Rollout Protocol would be as follows:

ABC Bank	
XYZ Product Rollout Protocol	
Product Rollout Objectives:	<ul style="list-style-type: none"> • 1-6
Basic Branch Rollout Schedule:	<ul style="list-style-type: none"> • From the previous question ("Accelerated method")
Critical Path Diagram (Gantt, PERT, or other)	
Definition of schedule altering issues:	
Reporting points:	<ul style="list-style-type: none"> • What is reported • Who reports it • Who uses it • How

Haven't we already developed a schedule for rollout?

Yes, if you followed the guidelines above -- the schedule of the Rollout Protocol will draw on the Rollout Branch Schedule. A protocol incorporating this Rollout Branch Schedule is needed to ensure, initially, that everything is ready for each rollout and, after the product is rolled out, that data is being collected and used in subsequent decision-making.

What else should the rollout protocol include?

The responsibilities required for each step of the protocol (training, marketing preparation and follow-up, systems installation and testing, as well as many others) should draw on the PERT or Gantt charts described above and in Appendix One. In addition to this, the Protocol should include reporting requirements (what and when), as well as guidance as to when the rollout should be paused.

Step 6: Product Costing and Pricing

What about costing the product for rollout?

Always remember that the product should be profitable, or it should not be rolled out. One of the basic objectives of Pilot Testing is to determine profitability. Profitability is a factor of the:

- *costs* related to the product or service,
- the *retail price* of that product or service, and
- the *volume of "sales."*

In the Pilot Test, all three of these factors must have been aligned in such a way as to show potential (or even achieved) profitability. When the product moves to other branches in the rollout, some of these factors may be significantly different than they were in the Test branch. This could dramatically impact the profitability of the product in those branches. Therefore, costing must be done for each rollout branch.

Although there are three key components, all rest on the costing. The pricing must be based on the anticipated costs with a factor for volume of sales. Depending on the price elasticity of the product, price is likely to be a significant consideration in a customer's purchase decision, and thus a potential limiting factor.

For the pilot test, costs (as well as volumes and other factors) were projected using a projections model. Now that there is “real experience” data generated from the pilot test, it may be more appropriate to apply these to a costing model. Many institutions are already using a costing model to calculate the “real” costs of their products. If this is the case, the institution can add the new product to their current costing activities. The results of this application will then be applied to the projections model where adjustments can be made on a branch-by-branch basis.

What if we are not doing any costing exercise with our current products?

If an institution of any substance is not costing its products, then proper management is difficult. Without knowing the details of the cost side of a product, the management will have difficulty effectively addressing costs to make the institution more competitive. Certainly without adequate costing, the institution will have a difficult time setting prices that cover costs and provide profit. Proper management requires appropriate costing.



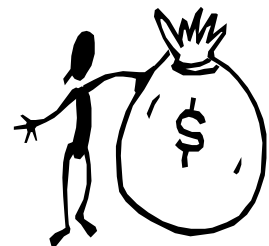
That said, if your organization is not currently conducting a regular costing exercise, then accurate costing for this product would be extremely difficult because you will have to cost the whole institution with it. In this case, your institution should set a short-term objective to identify and begin the implementation of an institutional costing model in parallel with the rollout of the new product.

Once institutional costing has been done, management will have a better understanding of the cost components of its new product, as well as for all its products. From here, the information from the costing exercise can be applied and the institution can re-project the results of the new product.

Step 7: Financial Planning

Must we draft a financial plan just for rollout?

Yes. A financial plan is, in fact, absolutely necessary, and not always easy to compile. Financial planning, monitoring, and asset/liability management can be quite complicated depending on how an institution tracks its accounting data, the detail of its budgets, and the level of ongoing costing activities. This is especially true if an institution has weak systems. Even with all the difficulties, it is clearly quite necessary to develop and manage budgets, monitoring systems, and tools to track and evaluate product costs.



Additionally, building a budget and other financial projections for a multi-branch rollout can be rather time consuming and complicated simply because of the many different variations in systems that can be present in different branches. Financial issues that are affected by rollout of a new product could include:

- Budgets
- Cash flow
- Asset/liability management

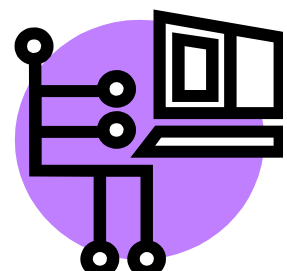
Many institutions and their senior managers are not careful with financial matters when it comes to new or altered products. However, not being careful with financial projections can be disastrous.

Step 8: Systems

Systems Planning Checklist

When addressing systems regarding a new product’s rollout, an institution must look beyond the computerised systems themselves to the people and processes that make the best use of them. The basic operational systems have been tried and tested in the Pilot Test, but in the rollout many new factors will present themselves when these systems are placed in the branches. These issues can include:

- Staff capacity to operate and maintain the systems



- Regularity and quality of electricity supplied to the office
- The level of dust and dirt in the office (which can have a big impact on computer hardware operations)
- The availability and quality of communications lines (critical for networked systems)
- Office security
- Availability of servicing by competent technicians

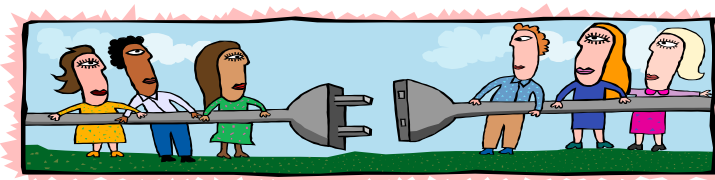
All these issues must be assessed in each location before a computer system is installed there. A simple checklist sent out to all rollout branch managers should help in the systems planning (as well as the financial projections).

Table 18 : Systems Planning Checklist

	Question	Response	Comments
1	Office Name		For identification
	Office Type		Could be a regional office, branch office, agency, or other type of office. This may be important in determining levels of computerisation, or even if there will be computerisation in that office.
2	Location		For identification
3	Distance in time and km from head office.		As a reminder of the time commitment for the head office to address issues at the branch.
4	Number of office staff requiring full product training.		This includes senior office manager, supervisor(s), and staff who will transact this account (include alternates for the initial staff selected).
5	Number of office staff requiring basic product training.		Other staff should understand the product, its basic operations, and have cross-selling skills. All office staff should attend one of these trainings.
6	Number of full product training staff (and alternates) with computer skills and experience. Indicate level of expertise for each staff member.		This will provide an indication of the requirement for basic or advanced computer training in addition to training on the product.
7	Average weekly hours of electricity loss during business hours		This provides understanding of the level of likely disruption due to electrical failure. Helps management make a decision about alternative sources of electricity, and if this is an appropriate location for the product.
8	Is a generator currently available at the office?		Yes or no
9	If yes, what is the excess capacity of the generator?		If there is a generator does it have enough excess capacity to manage the computer(s) and its accessories?
10	Are surge protection and UPS		If not, these will likely need to be

	Question	Response	Comments
	available at the site?		purchased.
11	Is reliable telephone communication consistently available at the site?		A networked system will require adequate communications. This may require developing a radio system or leased lines. It will also assist in the on-line versus batch-processing discussions that institutions have with new software
12	Is telephone line quality adequate for network transmission?		This will require a testing of specifications required for transmission.
13	Are facilities for the computer and related equipment secure from customers and others?		The computer needs a space where it will be sufficiently protected from unauthorized access.
14	How far is the nearest approved computer maintenance technician (in kms. and time for them to get to office)		Maintenance will be critical and management needs to know the likely response time (and costs) of the technicians.
15	Other questions		
16	Other questions		

Step 9: Staff Training
Recruitment and training



Human resource issues are among the most critical determinants of a successful rollout. Yes, rollout requires proper training of the implementing staff, but the human resource issues are much broader than simply training. The formal and informal incentive structures

throughout the institution need to be aligned so that all staff sees a benefit in the new product. At the same time, all implementing and non-implementing staff needs to be guided to work as a team for the benefit of the institution, rather than being set up as internal competitors, at least within a branch.

Box 5 : Creating Antagonism

In one institution, a modern technology savings product was introduced into a branch where all other transactions used old technology. In training the staff, three people were trained on the product (teller, branch manager, and regional marketing officer) and then it was launched. At first, transaction volume was slow and the teller simply sat in the transactions window and did little while the other staff-members were variably busy. No effort was made to teach the other staff about the product. This system created very serious animosity among the staff for several reasons:

- The “new technology” teller had a very easy workload while the others felt they were overworked.
- The “old technology” staff saw themselves potentially without a job as the more efficient product eventually took over all the business.
- The “old technology” staff was not trained on the new product and they felt left out (this exacerbated their concerns about losing their jobs).
- There was no communication to the whole staff about the place of this new product in the product mix and the institution’s plans for the future. This allowed people to imagine the worst for themselves.

This led to serious resentments within the “old technology” staff who made every effort to sabotage the new product. The result was extremely slow growth. When several small changes were made including basic training for all staff, placement of brochures in the lobby, an effort to bring the staff together as team, and the periodic rotation of the “new technology” teller with the others, it was reported that product growth doubled in less than a month by the number of customers that they had previously managed to gather in five months.

Training, branch incentives, and a teamwork spirit together can all have a highly positive impact on the rollout of a new product.

Step 10: Marketing

Developing a marketing plan

Marketing and (particularly) advertising during the Pilot Test was localised and soft. This was necessary because of the very nature of the Test: it could be halted or changed at any time and only focused on a limited geographic area with efforts not to let information go beyond that market area, so as to limit problems for other offices. Now that the Test is complete and the company is ready to unleash the product, marketing must be re-addressed in order to focus on a much larger market without geographic limits. In the Hand-over Package there should have been an assessment of the effectiveness of the marketing strategies used during the Pilot Test as well as suggestions for rollout marketing.

Do we need a new marketing plan?

Remember that one of the keys to successful rollout is effective marketing. Without effective marketing, the product will likely go nowhere. Because it is so critical to success, it is highly recommended that an institution planning to roll out a new product develop a detailed marketing plan that covers all aspects of marketing before the first rollout, including marketing effectiveness tools that will be used continuously throughout the product's life cycle. See MicroSave's "Product Marketing Strategy Toolkit" for details on how to research, develop and structure a Marketing Plan.

Box 6 : MicroSave's Product Marketing Strategy Toolkit

The Product Marketing Strategy includes the development and differentiation of products. It is a process of continually and systematically assessing needs of the market and its different segments to support product development and innovation that caters for those needs in the most feasible and profitable manner. Selling products is made considerably easier when approached in a systematic manner. There is a relatively straightforward method for preparing the key messages for a product marketing strategy that is built on taglines, ultimate selling propositions, and benefit statements. An MFI's sales strategy will depend on its products and its target market. These will dictate the balance between pull-and-push based strategies to selling the products.

This toolkit covers:

1. Definition of Marketing and its Role
2. Examining the Product – What Do Customers Want?
3. Benefit Statements/Unique Selling Proposition
4. Product Brands and Tag Lines
5. Exaggeration and Expectations
6. Positioning
7. Market Segments
8. Customer Service
9. Marketing Plans

Rollout marketing plan

The rollout-marketing plan does not need to be long and tedious, though it should include enough details to guide the Marketing Department and inform others of the marketing expectations. An appropriate format for a marketing plan for a product rollout might look like *Example X.1: A Marketing Plan Format*.

Example X.1: A Marketing Plan Format

- I. Assessment of market
 - a. Background:
 - 1. Macro-Environmental Analysis
 - 2. Micro-Environmental Analysis
 - 3. Institutional Self-analysis
 - b. Conclusions and Key Assumptions

- II. Product Marketing Goal and Objectives
 - a. Statement of the Marketing Goal – This is the major outcome of the marketing activities regarding this product.
 - b. Marketing Objectives for the New Product – a sample format for this part of the exercise is shown below.
 - 1. Overall Objective – this should be directly from the overall product objectives
 - 2. Primary Objectives – these are major objectives that are necessary to achieve the Overall Objective.
 - 3. Sub-objectives for every primary objective – these support the primary objectives

SAMPLE NEW PRODUCT MARKETING OBJECTIVES WORKSHEET							
Objective Level	Objective	Responsibility	Begin Date	End Date	Satisfaction indicator	Budget	Completed?
Overall Objective	Generate \$xxx in new deposits from this account in 2 years						
Primary Objective -	Attract yyy number of accounts						
Sub-Objective	Each branch to increase total number of accounts by ww%						
Sub Objective	Maintain 80% minimum new customers opening new account						
Secondary Objective	Maintain minimum average overall per account balance of \$zzz						
Sub-Objective	Attract at least 75% low level employed to open account						
Tertiary Objective	Maintain at least 75% account approval rating on the product by branch						
Sub-Objective	Develop an assessment tool to identify customer satisfaction by M1						
Sub Objective	Maintain better than 70% receipt of results by branch each month by the 15th.						

- III. Core Marketing Strategies – These are the implement-able strategies that will get the institution to achieve the objectives from Step II. A strategy should be developed for each objective and sub-objective.
 - a. Brand Name, Taglines, Ultimate Selling Proposition, Benefit Statement and Positioning Statement (all of which should have been tested and refined during the Pilot Test)
 - b. Target Market Segments - Identify primary and secondary target markets (if secondary is significant):
 - 1. Why were these markets selected
 - 2. What marketing tools/sales strategies are most effective for each target market
- IV. Key Product Policies – outlining the product policies arranged by the “8 Ps” of marketing (see below) to assist staff market the product in a uniform, cohesive and comprehensive manner.
- V. Objectives, Strategies and Activities - It is necessary to develop specific strategies for each objective and sub-objective to satisfy the quantitative objective within the timeframe provided. These strategies should

make use of the tools noted in Part III.

- a. Marketing Activity Matrix – describing the marketing activities to be undertaken in head office and each branch during each month of the year.
- b. Advertising and Promotion Schedule – A schedule should be developed to coordinate advertising and promotion activities with launchings and other opportunities. Note that the table seeks information on the impact of each effort. It is important to track the effectiveness of each marketing effort.

Advertising and Promotion Schedule Sample										
Location	Brief Objective	Medium	Tool	Frequency	Start date	Duration	Cost	Responsible	Completed?	Impact
Branch 1	Attract coffee harvest payments	Radio	Local language ad about how product secures your money	3X per day	XX/CC/OZ	2 weeks	\$TTT	Mr. PPP		
Branch 2	Initial new product introduction		Road show	5 times	YY/DD/OZ	3 days	\$RRR	Ms. YYY		
Branches 1&2	General long term information	Posters	How the product satisfies your needs	Continuous			\$QQ	Mr. PPP		

- c. Monitoring Techniques – As with the rest of management, if you do not monitor marketing, you cannot manage it adequately. The objectives will need to be monitored likely on a monthly basis. Usually the objectives should be further divided by branch and month for ease of tracking.

VI. Budget – The budget should include the cost of all activities of the marketing department with regards to the new product. Linked with the monitoring techniques, this should allow the MFI to conduct cost benefit analyses for different marketing activities.

What about the rollout itself?

We recommend three levels of rollout.

The first level is the “quiet” rollout. Here, a branch office begins to offer the product with no fanfare and little marketing. This provides an opportunity to test staff and systems with a limited number of real customers. This has the benefit of minimising problems that might occur within the office regarding systems and procedures for the new product and, just as importantly, allows staff to develop confidence in offering the product before large volumes of customers arrive. This period should last between one and two weeks, but no more than a month unless there are serious problems. Another benefit of a “quiet” rollout can be that pent-up demand for the product may be addressed in a quieter, more controlled manner.



The second level is the “public” rollout. Here, there is fanfare, maybe even speeches, a marketing surge, and the expectations of receiving many new clients. All systems and staff will have been tested off- and on-line, and the office should be fully prepared.

The “public” rollout builds momentum for the product and will often take advantage of several marketing tools, and especially the promotional tools among them. This is a time to make sure that everyone in the target market within the catchment area are aware of your product. Often this will be done through parades, cars with speakers driving through the area, speeches at the office, maybe drinks or other goodies for potential customers. It is an important event for the branch. It needs to give all potential customers a great feeling about your institution and its new product.

The third level is the “nationwide launch” of the new product. This can be done product is up and running successfully in all the MFI’s branches. It will involve a large launch in the main city of the MFI’s operating area and will seek to maximise publicity through the media. At this stage the focus is primarily on “pull” marketing: advertising, public relations, sales promotions and direct marketing.

In this launch the MFI is looking to build its brand and corporate image as well as publicise the product. This event requires a great deal of planning preparation to optimise the “splash” and impact! Prominent and respected personalities will attend and talk at the function, and satisfied customers will also be asked to speak about the MFI and its products. The national media (newspapers, radio, and TV) will be invited, entertained, and given press briefing packs including photographs and carefully written descriptions of the MFI and its products. The MFI will often place advertisements in the media in order to facilitate appropriately positive coverage. The MFI will also often run competitions with prizes for correct answers about the institution and its products – through newspapers and phone-in programmes on the radio.

Step 11: Assessing the Rollout

Rollout preparation is done, the product is rolled out in all appropriate offices, customers are choosing your product and using it, the post-rollout issues have been worked out, the product has fully moved to its home department, and the new product development world seems calm again.



Oh, if that were only true. As with every other development process in a financial business, rollout needs further assessment.

In many ways, the rollout is simply the detailed process of implementation in Diagram VIII.2: The Feedback Loop, included in Section VIII on Systems. This loop then moves towards more information collection and the cycle continues.

Continuous assessment

There are several types of continuing assessment that are needed in relation to the new product (as well as other products and procedures). These are listed in *Table 17: Continuing Assessment*.

Table 19 : Continuing Assessment

Analysis of:	Why:	By Whom:	How Often:
Systems (computerized)	To confirm data accuracy and proper performance of the systems	<ul style="list-style-type: none"> ✓ Internal auditor ✓ External auditor 	<ul style="list-style-type: none"> ✓ Within 2 months of rollout at each branch. ✓ Annually by sampling
Policies and Procedures (documents)	To confirm validity of policies and procedures to the evolution of controlled efficiency and effectiveness of the product operations	<ul style="list-style-type: none"> ✓ Manager of product home department (issues are often noted by audit) 	<ul style="list-style-type: none"> ✓ Six and twelve months after rollout to second office (first after the Pilot Test branch), ✓ Then annually two months before audit.
Policies and Procedures (adherence)	To confirm that controls are adhered to in a consistent manner throughout the institution.	<ul style="list-style-type: none"> ✓ Internal and External Audit (formally), ✓ Supervisory Staff (informally and continually) 	<ul style="list-style-type: none"> ✓ External audit annually. ✓ Internal audit every rollout office six months after launch, then part of routine audits. ✓ Supervisors review continually.
Product Satisfaction	To confirm client satisfaction with product	<ul style="list-style-type: none"> ✓ Research Department, (or staff trained in qualitative and quantitative research methods, a consultant) 	<ul style="list-style-type: none"> ✓ Within six months of launch institutionally for the product, and then ✓ As part of the regular research schedule.

Analysis of:	Why:	By Whom:	How Often:
Competitive Position	To understand the product's positioning in the market relative to competitors (formal and informal where appropriate). An institution cannot expect competitors to stand still and thus they must understand what the competition is doing relative to their products.	<ul style="list-style-type: none"> ✓ Marketing or ✓ Research Department or ✓ Consultant 	<ul style="list-style-type: none"> ✓ Quarterly
Profitability	To make sure the product is moving towards / improving in profitability	<ul style="list-style-type: none"> ✓ Finance 	<ul style="list-style-type: none"> ✓ Monthly, by branch, region, and institution
Product Objectives	To confirm progress towards objective satisfaction	<ul style="list-style-type: none"> ✓ Branch managers, ✓ Regional managers, ✓ Manager of product home department 	<ul style="list-style-type: none"> ✓ Monthly, by branch, region, and institution
Institutional Assessment	To identify and track the impact on staffing, system capacity and physical infrastructure as a result of the new product	<ul style="list-style-type: none"> ✓ Manager of product home department ✓ Finance, ✓ Human Resources 	<ul style="list-style-type: none"> ✓ Quarterly for the first year then ✓ Semi-annually after that.

These assessment types seem familiar.

They should. Most of these assessment types are basic to any institution.

What is different is the timing and focus of the different types of assessment. Some are required soon after rollout at the individual rollout branches (to ensure continued integrity of the system and procedures).

Others are specifically assessed after six months because, for example, procedures tend to be rather flexible in the beginning. As a large pool of people start operating the product and find difficulties, they will Test (often informally) small adjustments to improve efficiency or convenience. These adjustments need to be reviewed and either rejected, or accepted and entered into the Procedures and Policy Manuals.

What options do we have when we assess the product and find deficiencies once the product is rolled out?

It is relatively easy during the Pilot Test to determine whether or not a product works, and to conclude from the evidence that unless changes are made that are unpalatable to the institution (for reasons of profitability, strategic plan divergence, or even legal issues) the product must be cancelled. At this point distribution is limited and the fallout from such a decision is not seriously detrimental to the institution. Once the product is rolled out, the stakes are much higher. This is why Pilot Testing is so very important.

However, if an institution finds that a product it has rolled out does not satisfy institutional and/or customer objectives, the options are basically some form of product adjustment or product replacement. Only in very limited cases would an institution drop a product early in its life cycle.

The decision to drop a product would be based on an assessment of the cost to drop it. Any costs borne by customers will need to be reimbursed by the MFI, and transaction costs for a transfer to a replacement account would also have to borne by the MFI. This is all in addition to the staff costs of such adjustments. The cost of lost goodwill is often irrecoverable. These are among the reasons why properly completing the Pilot Test is so important.

Still, if the cost and the impact on customers is minimal, the MFI may choose to eliminate a new product.

What do we do if the product is not working, and it is too expensive to drop the product?

In this case, an institution is frequently left with a single option – product adjustment.



With data from several offices during or after rollout, the MFI should have a good idea of where the problem lies (customer demand, institutional efficiency, or other). From here a research plan is developed to gain further details about the problem. This may be qualitative or quantitative customer or staff research, it may be a more detailed allocation of costs, or efficiency studies, among others.

The task here is to generally identify where and why the projections were off so significantly, since the projection presumably showed a profitable, high demand product. From there, management needs to understand the reasoning behind the large discrepancy, which is usually an assumption problem.

Finally, the institution will need to assess its ability to match the assumption (with better marketing, or small adjustments to the product like a fee reduction for a price-sensitive product).

If it does not seem possible to match the assumption, than the institution must work with the other variables to obtain a workable compromise that satisfies the deficiencies. Unfortunately, this adjusted product must now be moved back to the Pilot Test phase for testing before rollout of the adjusted product can proceed.

Can we adjust the product once it is rolled out?

Certainly new products are likely to be adjusted in some small ways after rollout. Often this is through minor adjustments to policies, procedures, or systems, and usually these adjustments are imperceptible or positive to customers through increased efficiency or improved processes.

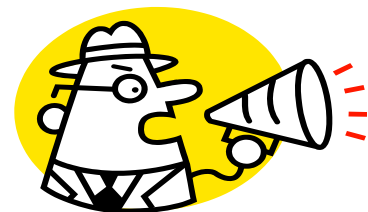
Larger adjustments – new restrictions, increases to fees, and reductions to income – will have a potentially serious detrimental impact on customers, and thus the product.

A reasonable approach to such a problem is to make the adjustments apply to new customers only. Allow the old customers to retain the product features they were offered either indefinitely, or for a certain period of time.

What are some of the key issues to remember if we have to adjust the product in a way that affects customers?

The key issues in such changes include:

- Communicate with the customers about what you are doing so they understand.
- Always comply with contracted agreements with customers (for example, you cannot change the interest rate on a fixed deposit or the repayment structure on a loan).



However, adjustments can be made, even to contracted agreements given agreement from both parties, if the net adjustment provides a *positive impact* on the customer. Indeed such adjustments provide useful opportunities for promotion activities.

One strategy employed by MFIs to avoid negative impacts on customers is to price the new product at a premium and then drop prices as real data show that costs are more than covered and they can give some back. Few customers will argue that they do not want a reduction in their costs!

How frequently do we need to report on the new product?

As a general rule, management of the new product's home department should receive summary progress reports at least monthly while the product is being rolled out at the different branches, and for six months thereafter. If there are significant problems, this timeframe will need to be expanded. Essentially, the monthly reporting to management on this product is to provide time for it to be implemented throughout the system, and then stabilize. After that, quarterly reporting by product against objectives and plans should be sufficient.



All managers are different in what level of detail they expect from such reports. However, generally it is best to provide a summary of actual progress against projections and objectives. Report any trends over actual to projected for three months and then percentage achievement for another three months to give managers a quick understanding of these trends. Do not report office by office. Report data for the whole institution.

From here, report on areas of significant (greater than 20%) deviation from plans and objectives, and other major issues that have been identified during the period. Any results of special studies should also be summarised with main points only. Try to keep the report to one page, but no more than two.

The information on the summarised report may spark an interest by the manager in learning more details about particular issues. These details must be available, but should not be given to the manager unless requested.

Though managers may like to look at detailed information, they are much more likely to read documents that are very short. Make your points in the short report and have the details available.

Appendix 1: Focused Group Discussion Guide

FGD/Interview Guide – Producers

1. Distance of the Barangay from the branch
2. Number of participants if it is an FGD
3. Region/Area/Barangay
4. Infrastructure (Road network, warehousing, market)
5. Bio data

S.No	Name	Family Size	Crops		Agri-Assets			Comments
			Major	Minor	Land holding ¹⁹	Equipment	Livestock	

6. Assess the seasonality and vulnerability/Challenges (asses various risk)
7. From where you get the inputs?
 - Where do you obtain the raw material (seed, fertilizer, insecticide, manure, machinery, irrigation, credit)
 - Quality of inputs
 - Ease of availability of inputs
 - Cost of inputs
 - Any other difficulty/challenges
8. What are the items that you produce and sell in the market
 - Any processing/storage/sorting/grading at this stage
 - If yes then get the detail
 - What is the value addition
 - Whom do you sell
 - Where do you sell
 - How do you realize the price (cash or credit and its mechanism)
 - Are you satisfied with the price that is offered to you
 - Can you get better price, if yes, then how (value addition or market or different market)
 - Any challenges/risk
9. Do you use machine in your production process?
 - If yes provide the detail
 - If no then do you know anyone who uses machine (we should meet this person)
 - What kind of technology is used
 - Any change in use of technology over 3-5 years
 - What are the challenges in using technology (common for all)
 - Any new technology that you want to use in future
10. Do you use local variety/breed or hybrid/hi-breed/HYV
11. What are the market available to you and who controls it

¹⁹ Irrigated and non-irrigated) (In case of FGD, it should be range

- Who offers the best price and what is the price at the time of harvesting
- How far you have to travel to sell your product
- Direct selling or intermediaries
- What is the usual amount that you sell

12. Credit

- What are the sources of income? (If yes, then how much of your total income comes from agriculture)
- Do you need financial support for agriculture?
- From where do you source the credit?
- What are the criteria for selecting a particular source? (Probe on good and bad quality of the mentioned sources)
- Why and when do you need the credit? (Probe around the different activities for which he avails the credit)
- How much and at what rate the mentioned sources provide you the credit? (Probe around the term and conditions of the sources, any collateral that they are required to put)

13. Insurance

- Is there any crop insurance available? If yes, then who provides it? What is the cost of insurance? Also, probe around the terms and conditions?
- Are you satisfied with the existing crop insurance facility? If no, what are the issues or challenges?

Interview guide –Traders

1. Name
2. Market/Barangay
3. What are the major crop produce that he procures?
4. From where does he procure the produce – farmers comes to his shop or procurement is done at the farm level/or through intermediary/other small trader/or market
5. How much he procures in a season? Is the procurement sufficient to meet the demand?
6. Where does he store the procured grains and for how long? Is there any modern warehousing facility located nearby?
7. What are the major challenges or risk in the procurement that he faces? Any suggestions?
8. What does he do with the procured grain? Process it or sell it directly? Where does he sell the produce and in what proportion? What is the price that he gets after processing?
9. What are the major challenges or risk in selling the produce? Any suggestions
10. What are the major risk in the entire business and how he mitigates the risk?
11. Procurement is done from the big farmers or the small farmers?
12. How many farmers are associated with him?
13. How does he pay? Cash/credit? Before cropping season?
14. Does he provide credit to the farmers or supply inputs to the farmers? If yes, what is the usual size and when does he provides it?
15. Understand the price fluctuations over a year (Price at the time of harvesting, price after 3 months of harvesting, price after 6 months of harvesting).
16. Understand the demand and supply over an year

Interview guide –Suppliers

1. Name
2. Market/Barangay
3. What are the major crops grown in his area? Which one is more lucrative for the farmer?
4. What are the various inputs that he provides to the farmer? (Seed, fertilizer, pesticides, machinery, credit)
5. How many farmers are associated with his shop?
6. Input is provided in cash or credit?
7. If credit, how is it settled and what are its terms and conditions? Is the settlement done in cash or kind?
8. Does he charge any interest rate and penalties?
9. What are the challenges in agriculture in his area?

Interview guide –Government agencies (Collect brochure, data, programme details from them)

1. Name
2. Province
3. Designation
4. What are the major crops grown in the area and what are the challenges?
5. What are the various programs run by the government to support agriculture and allied activities? How it is benefiting small holders?
6. How do they disseminate the technical knowledge to the farmers? What is the status of the extension services?
7. How can the small holders participate in the existing programs?
8. What are the expectations from the financial institutions like banks, MFIs, and other FIs?
9. How they are engaging private firms?

FGD/Interview Guide – Branch staff

1. Name of the branch
2. Number of staff
3. When did the branch start its operations?
4. What is the current O/S and no. of accounts?
5. What was the maximum level attained by the portfolio O/S and the no. of accounts
6. What is the distribution of no. of accounts and portfolio O/S in terms of end purpose?
7. What were the reasons for large scale reduction in portfolio?- Hint: was it because of internal factors like poor product design, lax collection procedures, poor staff quality, lack of due-diligence on clients etc. or external factors like typhoons, lack of market for the product etc.

FGD/Interview Guide – Processor/Retailer

Core questions	Related probe questions
1. Describe your business activities	<ol style="list-style-type: none"> i. How do you source your raw material? What are the terms and conditions? Cash/credit? ii. What kind of product do you produce? iii. Where is your market (Local/international)
2. What are the major challenges	<p>List them in their order of importance</p> <ol style="list-style-type: none"> i. How severe is the impact in terms of the financial pressure? ii. How frequently does this risk /challenge occur? iii. How widespread is the challenge? iv. What is the cost (estimated amounts broken down by cost components) v. Does it lead to other problems?
3. Talking about the most important challenges you identified, how do processors cope when they happen? (Ask about each of the key risk/challenges individually.)	<p>Probe the following:</p> <ol style="list-style-type: none"> i. How do processors cope? ii. What do they do to acquire the necessary lump sum of money?
4. How effective is this coping strategy (or mix of strategies)?	<p>Probe using the following questions</p> <ol style="list-style-type: none"> i. Does the strategy cover the full cost of the loss? (coverage) ii. Is it timely? (timeliness) iii. Is strategy accessible to everyone (gender, wealth level) (accessibility)? Who is it accessible to?
5. What suggestions do you have to address processors needs?	<ol style="list-style-type: none"> i. Probe for what they prefer for credit services ii. What is it that people like financial institutions to finance?
Closure	<p>Thank you. Your answers and discussion have been very helpful and informative. Do you have any questions or comments for us?</p>

Appendix 2: Financial and Non-Financial Intervention in Ginger in Value Chain

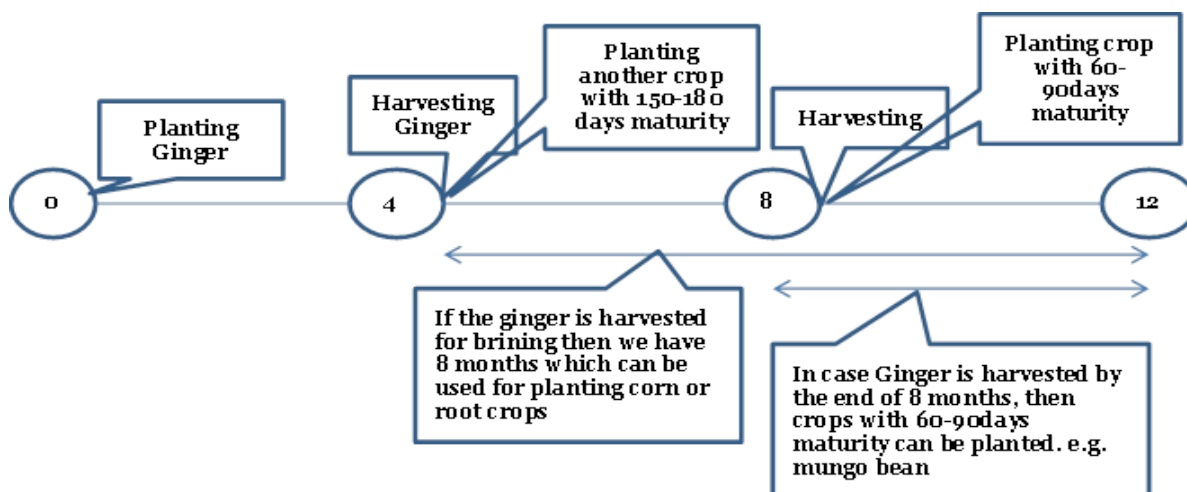
The research team studied ginger value chain in south Luzon province where TSPI has organized about 100 farmers to produce ginger. The farmer groups have been organized at the behest of a Japanese export firm that produces pickled ginger and exports it to Japan. These farmers are small farmers with an average farmland holding of about an acre. These farmers were growing ginger and accustomed to the usual 11-month cycle of ginger production. However, the export firm's specification for ginger required it to be harvested within 4 to 5 months. At this stage of harvest, the ginger is still tender and small with a distinct yellow with pinkish color tinge. The farmers weren't used to harvesting the ginger this early and felt that this ginger will fetch low value in the market. It took a lot of community interactions by TSPI to convince these farmers that the export firm will ensure that they are better off in terms of the net value accrued to them.

To ensure that the ginger procured is of the desired quality, the firm trained farmers on related agriculture practices, insect pest management, and post-harvest treatment of ginger. They placed a resident technical advisor with the community to provide more hands-on advice. The TSPI staffs were supported by National Livelihood Development Corporation (NLDC), which was providing training to the staff of TSPI on value chain and market development course.

TSPI's intervention – Financial and Non-Financial

TSPI has linked the farmers to the exporter through a contract that specifies the details related to the quality of the produce, rejection criteria, procurement quantity from each farmer (relaxed for the first year of contract), and price for the fresh ginger. TSPI is constantly monitoring the farmers and advising them on the agriculture practices. Further, the technical expert ensures round the clock support for the farmer. The expert trained the farmer on cleaning and clinical removal of the undesired parts of the fresh ginger.

Ginger Cropping Cycle along with Cropping Cycle



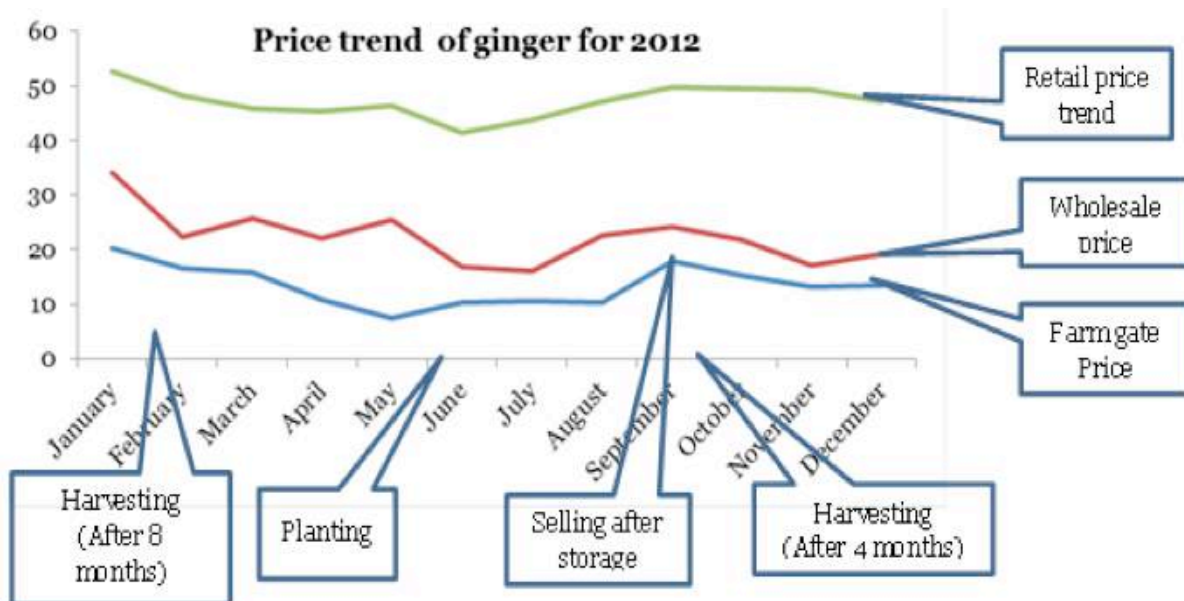
At the same time TSPI has calculated the total cost of production and has designed a production loan for these farmers. The loan is provided partly in the form of inputs and partly in the form of cash to cover the labour cost. Once the farmer starts supplying the fresh ginger to the exporter, exporter will deposit the amount with TSPI. TSPI will adjust the total amount received from the exporter with the repayments (principle + interest) at the end of the season which in this case will be 6 months. If the farmer wants to produce mature ginger then s/he can continue the loan for the remaining 8-10 months. Since most of the farmers are growing commercial variety Hawaiian ginger that matures within 8 months unlike the native variety which takes 11 months, the maximum loan tenure fixed by TSPI is 8 months. The intervention has helped the farmer in having assured market for the produce with assured price and credit facility that matches the crop duration. Since the produce is harvested within 4 months, farmers have ample time to grow crops

like corn or cassava to augment his income. The intervention has improved the soil condition because the farmers have started practicing crop rotation unlike mono cropping which drained the soil of essential micronutrient. The figure above shows the ginger cropping cycle and how the intervention has provided value addition to the farmers.

Other possible avenues of financing for ginger farmers

During the brief interaction with farmers it was clear that farmers were looking for more than a production loan. Apart from production the ginger farmer can also realize higher price by storing the ginger and selling it when the prices usually increases.

Price Trend of and Cropping Cycle of Ginger



The figure above shows that the price of ginger is lowest during the planting season because the harvesting season varies from February to May in any given year. The prices are high again in September when there is no supply. This advantage of this time arbitrage can be taken only when the ginger is stored for 6-7 months. Usually the small and marginal farmers lack the storage facility and hence cannot take advantage of this opportunity. Ginger is an enclosed space with high relative humidity and cooler temperature for safe storage. This can be achieved by putting the ginger in pit covered with soil and watering it frequently but the risk of damage in this method is high. With a little financial support a storage unit can be built. This provides a unique opportunity to design a financial product to create storage space for ginger. Once these storage spaces are ready, MFIs can provide loan based on the stored ginger as collateral. However, designing a financial product for storage facility will require further study.

Appendix 3: A Format for Reporting

When Decisions are “Desired”

Reporting has at least four important roles:

- It formalises information for the move to the next institutional level
- It helps management and staff in their thinking process to ensure clarity of the issues
- It acts as a “decision trail” for understanding why a significant decision was made
- It provides an easy mechanism to inform others of the decision, because this step documents the thought process and justification for the decision to help others understand



When the issue moves on to the next phase of the Feedback Loop it should have been well thought out in such a way that decision-making is facilitated and the need to go back through the loop is minimised.

There are four areas that should be addressed for each issue requiring decision-making. Remember; the reporting phase is the last step before decision-making and therefore must fully inform the decision-maker. Thus, a reporting format has been developed to assist in this process. Consistently using this format will greatly facilitate the decision-making process in the institution. The format is as follows:

1. **A Statement of the Issue:** This statement identifies the source of the information (to show its significance), what the issue is (a school fees savings account), and why it is important (it is good for all parties). It gives the proposer a chance to explain what the issue is and why it is important enough to be considered for a management decision. For example:

“Based on PRA and FGD research conducted at all the branches, customers are overwhelmingly asking for a school fees savings account. Because there appears to be so much demand, it is believed that there could be significant benefits from such a product to both the institution and the clients.”

2. **The Recommendation:** This section details the potential solution. It should be directly related to the issue, and should satisfy the needs of all parties. For example:

“We should test a school fees savings account that acts like a fixed deposit account with the ability to deposit at will but not withdraw funds until school fees are due (i.e., the maturity date). Rather than paying conventional interest on the account, there would be a significant completion bonus that would incentivise complete savings. The accounts department will create a new set of related accounts to manage and track the product. Where possible the school fees will be paid directly to the school on behalf of the client to further save them the need to wait in line (and reducing the line in our lobby at school fees time).”

The recommendation defines the product (in this case) and describes how it should work (at least in terms of the front office). Back office details are often addressed after the decision is made unless these are significant in terms of costs or capacity. In this case, there are confirmed additional account types available on the MIS system, as well as the ability to manage specialty incentive interest. The new account would create little additional work for the department.

3. **Comments on the Impact of the Recommendation:** This section discusses the analysis of the change on the institution and clients so that the potential benefits and problems are clear. Summarised information from the analysis stage would go here. This will include how the clients will benefit:

“It will facilitate their saving for school fees and reduce their stress around that time.”

And, what problems they might encounter:

“They might not be able to save regularly thus leaving them short for paying the school fees, and because payments were not complete, they would not earn interest on what they did save.”

The assessment of the impact on the institution is also critical. This should include at least a *cash flow assessment*:

“The finance department has completed the projection models and has shown that the cash generated can be invested in treasury bills during over the short period.”

And *profitability*:

“The T-Bill investments should provide an average return of 8% while the total bonus cost should be limited to about 2% of total deposits (because those who do not complete the savings do not get the bonus), while operations costs will be limited to 2%. This combination should provide a net return to the MFI of 4% on these deposits.”

Finally, *capacity* must also be addressed:

“A combined assessment by operations and finance management showed that even given growth projections of current products, it is expected that we could open 1,000 of these accounts without the need for additional unplanned staff. This assessment also demonstrates that the computer systems can easily add another account type and that the institution has more than enough staffing and systems capacity for this new account.”

This section might also include a note on any *key assumptions* that were used in this assessment:

“It was assumed that the new MIS system will be installed and fully tested before the test of this product begins, and that interest rates remain relatively constant through the development and testing period.”

4. **Implementation Plan:** This section should outline the next steps for the product. On significant new or altered products, processes, or policies, it is likely that the next step would be prototype testing and then pilot testing.

“This product will follow the pilot testing process outline in the *MicroSave* document “A Toolkit for Planning, Conducting, and Monitoring Pilot-Tests for MFIs – Savings Products.”

It is not intended that the formal report should be a long, droning research paper, but rather it should be kept brief and focused, like a newspaper article, and the writer should strive to keep it as close to one page as possible. It **should never** be over two pages. Additionally, in many cases a formal written report may not even be necessary. With *easy decisions* on *limited impact* issues, it may be sufficient simply to make an argument to management that includes the four points.

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