USAID
FROM THE AMERICAN PEOPLE

HUMAN-CENTERED DESIGN FOR FINANCIAL PRODUCTS: WORKSHOP

FACILITATOR'S GUIDE

ipa
INNOVATIONS FOR POVERTY ACTION

2019 THE RESEARCH TECHNICAL ASSISTANCE CENTER (RTAC)

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The Research Technical Assistance Center (RTAC) at NORC
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Innovations for Poverty Action
Innovations for Poverty Action (IPA) is a research and policy nonprofit that discovers and promotes effective solutions to global poverty problems. IPA brings together researchers and decision-makers to design, rigorously evaluate, and refine these solutions and their applications, ensuring that the evidence created is used to improve the lives of the world's poor.

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INTRODUCTION

Despite important progress in recent years, use of formal financial services across the developing world remains low. In many cases, financial service providers (FSPs) may lack the knowledge and expertise to develop an appropriate range financial services and products that satisfy the diverse needs and expectations of low-income clients.

In order to achieve meaningful take-up and usage of formal financial products among underbanked segments, FSPs must develop the capacity to use human-centered design processes to design and test new products and innovations which truly respond to client needs. Human-centered design aims to make systems and products usable and more useful by focusing on the needs and preferences of the end user, and by applying lessons from behavioral economics research. Behavioral economics refers to the psychological, cultural, and emotional factors which influence economic decision-making, and has broad implications for household finance and financial health. A large body of empirical research from the U.S. and abroad has demonstrated that incorporating lessons from behavioral economics into financial product design can lead to improvements in product take-up and usage, as well as financial health outcomes.

Innovations for Poverty Action (IPA) uses insights from behavioral economics to develop, rigorously evaluate, and scale products and product features that help low- to moderate-income households lead healthier financial lives. IPA has developed this training curriculum in order to disseminate lessons from behavioral economics research in a way that is accessible and useful to financial institutions at the moment of designing new products and channels for the poor or assessing the appropriateness of existing products. This curriculum is aimed at financial institutions that are struggling to develop new value propositions for clients at the bottom pyramid, or that are considering scaling existing products to new segments of the population.

By combining practices from human-centered design thinking with IPA's understanding of behavioral research, this curriculum provides an evidence-based approach to tackling a multitude of client-side problems in their journey to financial inclusion and financial health. While we encourage future facilitators of this curriculum to have a prior understanding of behavioral research, we also provide a reference to the key studies informing these learnings. An understanding of monitoring and evaluation will also come in handy, if the reference list on that topic does not suffice. We hope this tool spreads everywhere and to hear from your experiences running this curriculum.

NOTES ON FORMAT

1. Due to the deliberative nature of these exercises, facilitators should aim to deliver this curriculum to one institution at a time, and so encourage frank discussion about real business opportunities and objectives.
2. When organizing a training, encourage participation from across many areas of the FSP, from product leads, marketing, and technology to frontline staff in order to ensure a range of perspectives and experiences.
3. Remember to split participants into groups of 4-7 people each, and to set up the room to facilitate group work (e.g., banquet style).
4. Assign facilitators to each working group to provide participants with enough guidance throughout the workshop.
5. Distribute and arrange all resources before participants arrive on the day of the training.

Materials

- ☐ Markers (several colors)
- ☐ Post-it notes
- ☐ Note pads
- ☐ Flip charts (one per table)
- ☐ Pens
- ☐ Nametags
- ☐ Handouts for Day 2
- ☐ Timer

Equipment

- ☐ Projector
- ☐ Screen
- ☐ Clicker

OVERALL WORKSHOP OBJECTIVES:

1. Complement learners' existing knowledge of product development processes by equipping them with a) Basic tools and theories behind human-centered design (HCD) and b) a framework for understanding the most relevant lessons from behavioral economics research.
2. Identify a challenge that can be solved using a human-centered design approach.
3. Apply an HCD approach to a proposed challenge and develop a solution to this challenge which will improve business and consumer outcomes by using a customer journey mapping, pain points, and customer personas.
4. Develop an understanding of how gender-based barriers affect product take-up, usage, and financial health outcomes for women.
5. Describe different behavioral biases and identify implications for designing a product prototype.
6. Distinguish between experimental and non-experimental approaches to measuring and testing the impact of new product innovations.

HOW TO USE THIS MANUAL

LEARNING OBJECTIVES

The lesson plan below describes each component of the curriculum with their corresponding learning objectives. By the end of this workshop, participants will demonstrate increased knowledge and a more open attitude towards empathic experimentation in product design.

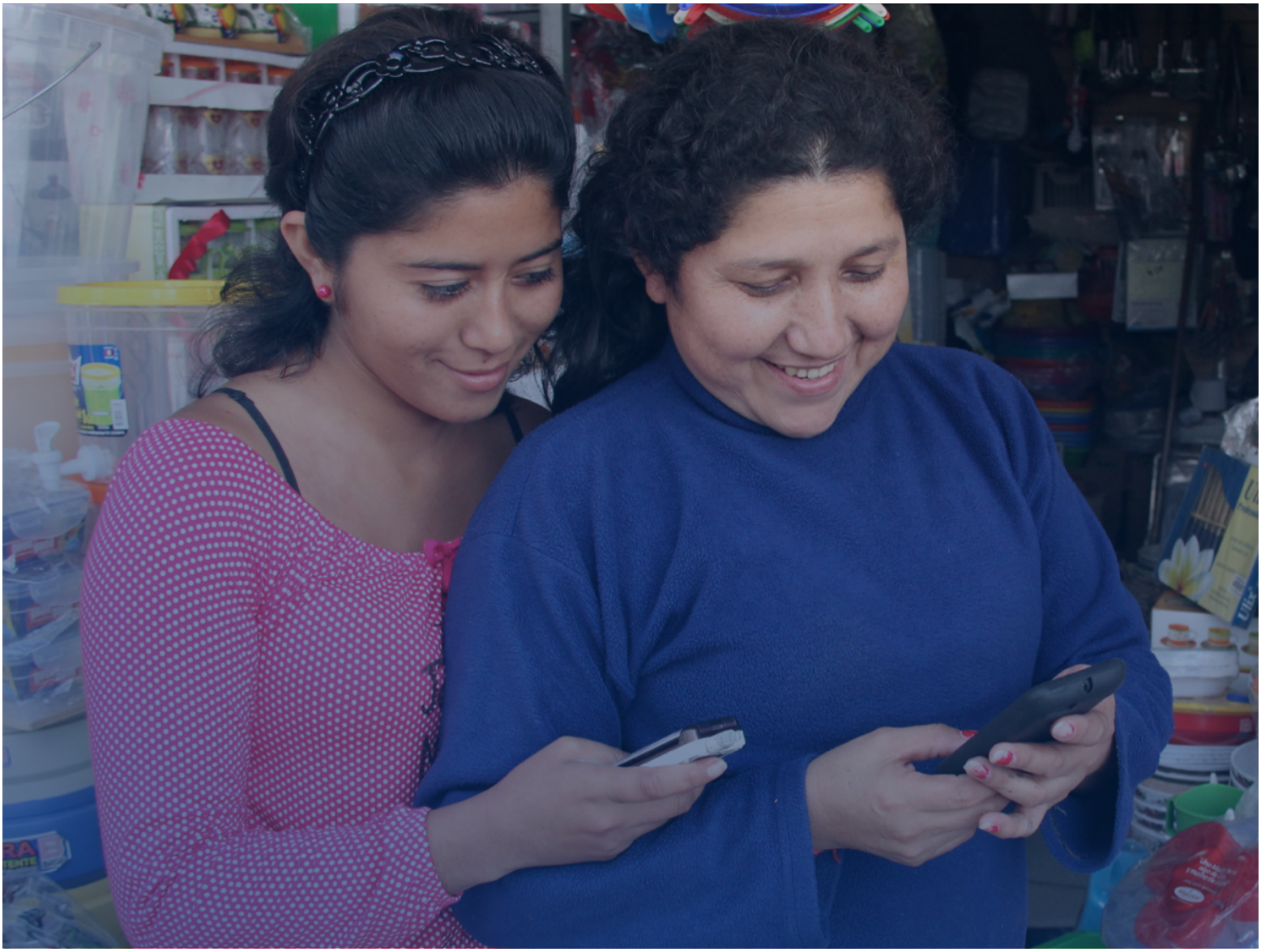
#	COMPONENT	LEARNING OBJECTIVES
0	Selecting a challenge	• Identify opportunities for problem solving and out-of-the-box thinking
1	Workshop Introduction	• Discuss the objectives for the workshop • Discuss how the group is expected to work together during the workshop
2	What is human-centered design?	• Provide an overview of human-centered design process and how it applies to FSPs • Empathy is a starting point for all HCD work
3	Defining the problem	• Understand how to of restate a business challenge from the point of view of the client • Develop and select a problem to work on throughout the remainder of the workshop
4	Customer journey mapping	• Use the problem statement above to elaborate the customer journey related to it • Leverage the customer journey process to incorporate all the reasons motivating a client to pursue a certain product and interact with your institution
5	Behavioral economics for financial product design	• Understand the principles of behavioral economics which most closely impact financial decision-making • Understand the ways in which behavioral biases can affect financial health
6	Understanding gender barriers	• Introducing gender-based barriers and how they may affect women's success
7	Creating personas	• Understand how to deploy personas to better identify pain points and prototype solutions.
8	Identifying pain points	• Identify the pain points for client personas

9	Ideation and prototype design	• Develop ideas within each working group which can solve for one or more of the pain points identified along the customer journey
10	Theory of change & learning agenda	• Understand the importance of developing a learning plan that adjusts to your organization and the project's scope
11	Rigorous evaluations	• Understand the importance of rigorous evaluations in the decision-making toolkit
12	Final takeaways	• Reflect on the high-level learnings from the workshop

WORKSHOP AGENDA

Day 1	
9:00 - 9:30 AM	Breakfast
9:30 - 10:15 AM	Welcome and introductions
10:15 - 10:30 AM	What is human-centered design? - Presentation
10:30 - 11:00 AM	Defining the problem – Group activity
11:00 - 11:15 AM	Coffee break
11:15 - 12:15 PM	Customer journey mapping – Group activity
12:15 - 1:00 PM	Behavioral economics for financial product design - Presentation
1:00 - 2:00 PM	Lunch
2:00 - 2:30 PM	Understanding gender barriers – Presentation and discussion
2:30 - 3:15 PM	Creating personas – Group activity
3:15 - 3:45 PM	Coffee break
3:45 - 4:30 PM	Identifying pain points – Group activity.
4:30 - 5:00 PM	Show and tell - Group Activity
5:00 PM	End of Day 1

Day 2	
9:00 - 9:30 AM	Breakfast
9:30 - 9:40 AM	Overview of Day 1
9:40 - 10:25 AM	Ideation and prototype design – Presentation and group activity
10:25 - 11:00 AM	Solutions marketplace - Presentation and group activity
11:00 - 11:15 AM	Coffee Break
11:15 - 12:15 PM	Implementation – Theory of change presentation and discussion
12:15 - 12:40 PM	Learning agenda – Presentation
12:40 - 1:00 PM	Conclusions, certificates and closing words
1:00 PM	End of workshop



DAY 1

SELECTING A CHALLENGE

The foundation of (HCD) is selecting a challenge. While scoping possible partners, use these steps to spot the opportunities with the most potential to apply a human-centered design approach, and to request the support of the collaborating institution in securing the right participant profiles. This curriculum has been developed to encourage the development of new financial instruments or product features which meet the needs of traditionally underserved segments such as women, youth, microentrepreneurs, or smallholder farmers. While it is unlikely that a perfect end-product can be developed over the course of a day and a half (although we encourage you try!), participation in this training will provide an honest and focused framework to discuss the barriers that institutions currently face in reaching these segments from the perspective of that target market.

Human-centered design is an iterative process and we hope that throughout the course of this workshop, your participants will continue to define and redefine their challenges based on this learning.

Discuss the institution's current product offering to clients at the bottom of the pyramid

- What does their current portfolio of products targeting the target segment look like? What products are available and how are they currently being used?
- How do they describe their opportunities with the segment? Are there particular profiles that stand out to them? (Remittances recipients, small businesses, etc.)
- What are, in their opinion, the current barriers to expanding that offering? What are some problems that their clients continuously report?
- What data or research does the institution currently use to learn more about potential customers? What are some examples of experimentation that the institution can recall?
- Zoom in on a customer segment that the institution is trying to target
- Which departments are usually involved in developing tools for them?
- What does the design process currently look like?
- If still a concept, inquire more on their current development plans and whether they have conducted any piloting for either their idea or prototype
- Finally, go over their motivation for participating in this workshop
- What do they hope to get out of this?
- How would this add value to their current plans?
- Would they be able to commit 15-20 staff members for a day and a half?

1. WORKSHOP INTRODUCTION

Time & Format	Lesson Objectives	Materials
30 minutes Presentation & Activity	• Discuss the objectives for the workshop • Discuss how the group is expected to work together during the workshop	Slideshow Post-it notes Markers

Facilitator Preparation Notes

- Open the accompanying PowerPoint on Slide 1 as guests are finding their seats

INTRODUCTION TO WORKSHOP SLIDESHOW (15 MIN)

Slides	Facilitator Notes
	• Introduce facilitator(s) and other guests as appropriate • Introduce host organization(s) • Attendees introduce themselves to one another in their groups; or to the entire floor, depending on group size

Workshop Objectives	• At the end of this day and a half workshop, participants will have a greater understanding of:
	  ○ Human-centered design and its applications for improving financial inclusion goals
	  ○ Behavioral economics and how behavioral biases affect how your customers manage their finances
	  ○ Evidence about women's financial inclusion and how to design products with a gender lens
	  ○ Experimental and non-experimental methods for testing prototypes and measuring their social impact

Agenda	• Review agenda for the day
	• Discuss workshop logistics
	  ○ Mention building layout
	  ○ Bathrooms
	  ○ Emergency exits
	• Ask participants if they have any questions

Workshop Rules	There are a few basic principles to keep in mind throughout the next day and a half: • Don't be too quick to judge. Let's hold back a bit before shutting down ideas. This is a safe space, and everyone has a place to contribute openly. • Embrace unconventional thinking. We don't get a lot of space for this in the real world, so let's embrace the ideas that we would not normally consider in our day to day. • Let's build something together. Let's approach our challenges and other work throughout this workshop as shared learning opportunity. • Focus on the main topic. Our time is limited during this workshop, so let's steer the conversations focused on the topics, problems and solutions affecting the client. • One conversation at a time. Let's deliberate our ideas as a group and move forward together on the issues discussed • Let's use visual tools. Illustrating our ideas is a great way to translate them for the benefit of others, and so convey the vision we have in mind • The more we propose, the better. To start, focus on quantity over quality, and embrace the full spectrum of potential explanations and solutions

ACTIVITY 1 – ICEBREAKER GAME (15 MIN)

Visual Phone
This game provides an opportunity to discuss challenges of interpretation and visualizing within the group.

Instructions:

- Provide each participant (at least 4) with a stack of 3 notes each and a pen.
- Ask participants to write a phrase or concept on the Post-it, and to cover it with one of the blank ones from the stack when done
- Once everyone in the group has written something down, ask them to pass it to the person next to them (and always in the same direction as the other participants in the group)
- Each person will now review the phrase or concept written by the previous person, and then they will draw the message on the blank Post-it
- Every person will now pass the Post-it stacks in the same direction as before to a new person.
- On the Post-it that remains blank, each final recipient writes an interpretation of the drawing received, and places it on top of the Post-it set
- Everyone passes the Post-it again until it returns to the first participant
- Review the Post-it set so everyone can see the writings and drawings

Adapted from funretrospectives.com

Facilitator Note: How many people got their phrases correctly guessed? How many didn't? Were the issues at the drawing or interpretation stage?

WHAT IS HUMAN-CENTERED DESIGN?

DAY 1

2. WHAT IS HUMAN-CENTERED DESIGN?

Time & Format	Lesson Objectives	Materials
15 minutes Presentation	• Provide an overview of human-centered design process and how it applies to FSPs • Empathy is a starting point for all HCD work	Slideshow

Slides	Facilitator Notes
What is human-centered design?	• Ask participants: "Who in the room has ever heard of human-centered design?" Ask anyone who raises their hand to volunteer to share what information they know about it. ○ If no one raises their hand, ask if anyone wants to take a guess at what they think human-centered design is.
Example: sidewalk	• Ask participants to interpret what is happening in the image on the slide. • Sometimes we design with one use case in mind, but we don't understand other potential needs and intentions. • Ultimately the success of a product or strategy will be a reflection of how well aligned it was with the end users' needs. • Human-centered design is a process by which we incorporate the end users' perspectives into the development of a new product or channel
Does this product work well for the user?	• What do you think of this clock? Does it work well for the user? • The user needs the clock to wake them up. Is it effective? Or easy to turn off? Easy to hit snooze? • So, how would we design a clock to overcome these limitations?
Human-centered design to the rescue!	• Introducing: "Clocky!" Clocky is an innovative alarm clock design that forces the user to wake up. • A user may set an intention for their future self the night before (for example, to wake up at 7am), but the next morning, their present self has a stronger desire to stay in bed • When it's time to wake up, Clocky rolls off the table forces you to get out of bed to chase after it. • This product is designed to anticipate human behavior (a desire to delay getting up) and force the user to follow through on their intention. Source: https://clocky.com/

What is human-centered design?	Human centered design is a problem-solving process that starts with the user in mind and culminates in new and innovative solutions • Empathy is essential to the human-centered design process • Generate a multitude of ideas and iterate them until you get something feasible • Put your ideas out into the real world and measure the results
Why human-centered design?	Incorporate consumer insights into product design *Example: Among pension contributors in Colombia, each dollar spent on five, ten, and fifteen months of reminder messages led to an increase in retirement savings of $10.71, $17.36, and $15.87, respectively.* Deepen your understanding of consumer choices *How can gender norms affect liquidity preferences for men and women: In Kenya, offering free ATM cards led to reduced account usage among women with low bargaining power in the household.* Prompt a discussion with the class about how they currently do market scoping or how they research client segments
When to use human-centered design?	The human-centered design framework can be used to tackle **consumer-side** challenges at any point along a product's lifetime: *Piloting:* Which behavioral levers to use when reaching new segments? *Retention*: Can new features improve a customer's journey? *Repayment*: How to tailor repayment terms more effectively?
The human-centered design process: 3 phases	• There are three phases of the HCD design process. • HCD starts with a goal of developing products that serve the needs of customers, leveraging 3 distinct phases: Inspiration, Ideation, Implementation • In the Inspiration phase, you'll learn how to better understand how people currently solve a certain problem. You'll observe their journey, map out bottlenecks and barriers, understand how behavioral biases affect behavior, and learn how to approach these problems with empathy. • In the Ideation phase, you'll begin to brainstorm and troubleshoot the issues encountered and develop a design to approach these issues. • Finally, in the Implementation phase, you will launch and test your solution along with an accompanying learning for testing and iterating the solution developed.

PHASE 1: INSPIRATION

DAY 1

Slides	Facilitator Notes
Phase 1: Inspiration	In this first phase we are going to take a deeper dive into the problems that your clients face which can be addressed by financial services, and map out the way they currently meet their needs
How well do you know your clients' financial lives?	Many factors affect a person's financial choices and decision-making, and this diagram presents the full ecosystem • Social and economic environment: what surrounds you in your family and community • Personality and attitudes: How you tend to think, feel, and act • Decision context: How a decision is presented • Available opportunities: What options are open to you • Behavior: What you do • Personal financial well-being: How satisfied you are with your financial situation/what it has allowed you to do Source: "Financial well-being: The goal of financial education" US CFPB (2015)
Learn from your customers using qualitative methods	• Qualitative research: a method of observation for collecting non-numerical or quantitative data. • Better understand the architecture of choice of the client: needs, desires, aspirations and assumptions about the world. • Understand the social context in which behaviors are born, formed and engrained. • Map relational dynamics between people, places, objects and institutions.
How to collect qualitative data?	Qualitative fieldwork can happen at many points in the design process Use it to define a problem, validate a hypothesis, solicit feedback on a prototype from the target population
Challenges to consider	• As with all data collection, it is important to consider possible challenged: • Literacy levels • Trust in the surveyor • Security and privacy concerns • Income can be variable and unpredictable • Are you using the right time horizons for planning? • Is it easy for subjects to articulate barriers? Goals?

Empathy at the heart of human-centered design	• Finally, remember to approach all these issues from a place of empathy • No judgment of subjects' views, strategies, or decision-making • Understand emotional drivers to decision-making • Value them as human beings; their views matter and the FSP doesn't always have the right approach or perspective • And lastly, share with them what you have learned, and explore ways in which this knowledge could be used effectively

DEFINING THE PROBLEM

DAY 1

3. DEFINING THE PROBLEM

Time & Format	Lesson Objectives	Materials
30 minutes Presentation and Activity	• Understand how to of restate a business challenge from the point of view of the client • Develop and select a problem to work on throughout the remainder of the workshop	PowerPoint presentation Flip Chart Post-it notes Pens

DEFINING THE PROBLEM SLIDESHOW (5 MIN)

Slides	Facilitator Notes

Define the problem... in human terms	Human-centered design is a methodology that can be applied to any field—so long as the product or process involves a degree human interaction. In this stage, we will focus on problems relevant to financial products and tools. When thinking of these problem statements, let's reframe them to consider how the question will look like from a client.
	
	• How can we simplify the _____ experience?
	  ○ Examples: Gift-giving. Saving & spending.
	• How might we help improve _____?
	  ○ Examples: Savings habits. Access to credit. Repayment rates. Pension contributions.
	• How might we increase _____?
	  ○ Examples: Recycling. Walking. Intergenerational communication.
	• How might we decrease _____?
	  ○ Examples: Bullying. Pollution. Homelessness.

ACTIVITY 2 – DEFINING A PROBLEM (25 MIN)

In small groups, ask each of the participants to write at least one problem from the perspective of the client in a Post-it, using the terminology in the previous slide.

Allot 10 minutes to this activity.

Provide interactive guidance to groups as necessary to steer the conversation in the right direction and the to focus the problems on the client perspective.

Now, give participants 2 minutes to present each of the problems they wrote to the other members of their group.

Put all the problems on the flip chart and ask participants in each group to select the challenge they want to address as a group.

One problem should be selected by each group and will be used throughout the remainder of the workshop.

4. CUSTOMER JOURNEY MAPPING

Time & Format	Lesson Objectives	Materials
1 hour Presentation & Activity	• Use the problem statement above to elaborate the customer journey related to it • Leverage the customer journey process to incorporate all the reasons motivating a client to pursue a certain product and interact with your institution	PowerPoint Flip Charts Post-it notes Markers

CUSTOMER JOURNEY SLIDESHOW (5 MIN)

Slides	Facilitator Notes

What is a customer journey mapping?	• An illustration of the steps a customer takes in order to resolve a problem or use a product or service
	• How the customer interacts with your institution at each stage
	• The customer's goals for each action and how your institution can help
	• A customer journey is framework in which we can aggregate everything that connects us as an institution with the client
	  ○ It focuses on a particular product and the ways in which clients use it to fulfill their needs
	  ○ Must be done from the perspective of the client
	  ○ Include all steps in the process, regardless of whether they are direct product interactions or not

A customer tour map is useful to...	• Create a shared understanding of your service from the point of view of customers. • Document customer options and needs at various points of contact between them and your organization. • Identify inconsistencies in service delivery. • Identify opportunities to address weaknesses or gaps.
Example	• This is a tool that can hold as much detail as the group finds useful, so be as comprehensive as possible. • Prompt group members to question their assumptions at each stage by asking probing questions about their ideas and assumptions.

Example: Luisa wants to buy a car	Let's look at this example of a customer journey related to buying a car. In this case, Luisa is considering purchasing a vehicle, so what steps must she take to complete the purchase? **What are the steps she must take?** • Collecting information about possible models and purchase methods • Compare options: what kind car does she need? • Financing: does that model have the appropriate financial options? • Consideration • Purchase • Repayment **What do we include in the map for each step?** • Goals • Personnel and materials involved
Customer journey mapping: how do customers currently solve the selected problem?	• Here we begin to unpack the challenge selected earlier in the workshop by each group. • For this next exercise, groups will have about 40 minutes to visually map out a customer's journey related to the problem they defined earlier. • We will have 15 minutes at the end for each group to present their problem statement and main steps along the customer journey map to the rest of the room.

ACTIVITY 3 – MAPPING YOUR CUSTOMER'S JOURNEY (40 MIN APPROX.)

Provide each working group with large pieces of flip chart paper and colored markers. Their task is to visually represent all the decision points and steps a customer might take to solve a problem or complete a task. The customer journey starts even before a person seeks a financial product and may include informal options as well as formal options. Remember to steer the groups' conversations back to the customer and creating the map from their perspective.

It can be natural for groups to want to describe the journey from the perspective of business processes or how they think the process "should" work; it is important to nudge them to challenge their assumptions through questions and prompts.

BEHAVIORAL ECONOMICS

DAY 1

5. BEHAVIORAL ECONOMICS FOR FINANCIAL PRODUCT DESIGN

Time & Format	Lesson Objectives	Materials
45 min Presentation	• Understand the principles of behavioral economics which most closely impact financial decision-making • Understand the ways in which behavioral biases can affect financial health	PowerPoint

Slides	Facilitator Notes
Behavioral Economics 101	• Humans do not always behave "rationally," they might make decisions or take actions which are not in their best interests or do not align with their stated objectives. • It is hard to stick to a goal or adopt or change a habit. • In this photo, we see clients of a gym who have paid a membership fee to exercise at the gym; their stated intention is to exercise, and they have investment money in order to achieve this goal. • However, by using the escalator rather than the stairs, their actions are in contradiction with their stated objectives. • People from all socio-economic segments face the same challenges – it can be hard to align our stated preferences with our actions. We can make irrational choices, but we do so in predictable ways. • Behavioral economics refers to a set of biases and behaviors that are common across populations and are predictable drivers of behavior. • Behavioral principles we will explore in this presentation are self-control, present bias, inertia, inattention, choice overload, and bounded rationality.
Products can use "nudges" to help people achieve goals	• Nudges are product design features which help to counteract behavioral biases and keep clients on track towards their stated goals. • Nudges describe ways in which products can anticipate predictable pain points or areas where a client may drop off their customer journey and build product-based solutions to ensure success … literally "nudge" them towards certain decisions or actions.

- Richard Thaler is a Nobel prize winning economist at the University of Chicago who is one of the founders of this field of study – behavioral economics
- According to Thaler:

"A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. The first misconception is that it is possible to avoid influencing people's choices."

- Nudges cannot force clients to make certain choices, nor do they restrict any options.
- Nudges should be used to help clients reach pre-established goals and help them successfully achieve outcomes they have stated that they want to achieve. They should not attempt to change preferences or work against the client's own objectives.

Is it a nudge?

How do you define a nudge? This table presents two different approaches for solving the same problem. The solution in the left-hand column is an example of a nudge – a change in the way choices are presented based on lessons from behavioral economics – and the solution in the right-hand column is not.

IT'S A NUDGE	NOT A NUDGE
Home energy reports that tell you how much energy you use compared to your neighbors.	Adding a tax or financial penalty on excessive household energy use.
Asking citizens to make a plan to vote, asking when, where, and how they will get to their polling station.	Making voting mandatory.
Auto enrollment in your company retirement plan using payroll deduction.	A campaign for employee awareness of retirement savings options.

Goal 1: Reduce energy consumption in the household

- Nudge: Home energy reports that tell you how much energy you use compared to your neighbor. By showing a consumer how their behavior compares to that of their peers, the reports provide a benchmark and mental anchoring around energy consumption amounts that are "good" and "bad."
- Not a Nudge: Punishment or taxation to financially penalize usage

	Goal 2: In countries where voting is not mandatory, increase the number of people who successfully vote in an election • Nudge: Breaking a complicated task down into bite-sized, more achievable parts can increase the likelihood that the task will be completed. Rather than seeming overwhelming and resulting in paralysis, the citizen now has a step-by-step plan for how they will carry out the task: in this case, to vote • Not a Nudge: Legally requiring voting takes away choice Goal 3: Increasing rates of long-term retirement savings in a voluntary account • Nudge: Use technology to automate desired behaviors instead of relying on the customer to make choices and take actions every month, which are hard to maintain over time and easy to delay or forego. • Not a Nudge: A promotional campaign about the benefits of saving for retirement and ways to do it – providing information alone does not address behavior change challenge
Nudges for financial health	Behavioral biases can trip us up when trying to reach financial goals… nudges can help keep customers on track to complete long-term plans which require repeated behaviors over time, such as: • Reaching a savings goal • Paying off debt • Sticking to a budget Behaviorally informed designed can also improve the way in which information or choices are conveyed to a customer, making key information more or less salient and improving the user experience through design. This is helpful for decisions such as: • Product comparison • Product selection
Self-control	People often intend to use money for a specific purpose but find themselves spending it on more tempting and immediately gratifying things instead. <u>Real world application:</u> • Savings • Sticking to plans/budgets • Consumption smoothing

The Marshmallow Test	The video for this module can be found here, from Igniter Media. This video is a recreation of 1972 study on delayed gratification by psychologist Walter Mischel of Stanford University. This study sought to understand when willpower and self-control is first present in children, but follow-up studies have suggested that children who were able to wait longer for a reward also fared better in other life outcomes such as test scores, educational attainment, and other outcomes. After watching the video, how do the reactions and experiences of these children relate compare to the experiences of your clients? What lessons can financial service providers draw from this study?
Using commitment devices to stick to a plan	Commitment devices are voluntary, binding arrangements that people make to reach specific goals that may otherwise be difficult to achieve. When built into savings products, commitment devices can help address behavioral and social obstacles to saving by providing a mechanism that forces people to save according to their self-set plans. These devices vary in terms of commitment activity, consequence for failing to fulfill the commitment, and control over how savings are spent. "Hard" commitments feature financial penalties for failure, whereas with "soft" commitments, the penalty is primarily psychological, as in letting down oneself or one's community.
Commitment contracts for savings	• Commitment contracts have shown to improve savings outcomes for clients when built into a savings account. Study: Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines Researchers: Nava Ashraf, Dean Karlan, and Wesley Yin Country: Philippines The Green Bank of Caraga in the Philippines designed and implemented a commitment savings product called a SEED (Save, Earn, Enjoy Deposits) account. The SEED account provides individuals with a commitment to restrict access to their savings, thus potentially helping with either self-control or family-control issues. Each individual defines either a goal date or amount and is subsequently unable to withdraw from the account until the goal is reached. Other than providing a possible commitment savings device, no further benefit accrued to individuals with this account: the interest rate paid on the SEED account is identical to the interest paid on a normal savings account (4 percent per annum).

	Savings Product Take-up: Twenty eight percent of those who were explicitly offered the SEED product opened an account. After twelve months, about half the clients had deposited money into their account beyond the initial opening deposit, and one third regularly made deposits. It appears that SEED helped about 10 percent of the treatment group to save more. Impact on Savings Balances: For the commitment savings group, average savings balance increased by 42 percent after six months and by 82 percent after one year. This increase in savings also does not appear to crowd out savings held outside of the participating bank. Household Decision Making Power: The SEED product leads to more decision-making power for women in the household, and likewise an increase in purchases of female-oriented durable goods. The outcome was measured as a decision-making indicator, calculated as the average of responses across nine decision categories (expensive purchases, assistance given to family members, recreational use, etc.). Findings indicate that assignment to the treatment group leads to between 0.14 and 0.25 standard deviation increase in a decision-making index. Self-Perception of Savings Behavior: Results also indicate that the SEED product leads women who report themselves as favoring present consumption over future consumption in a baseline survey to self-report being a disciplined saver in the follow-up survey. The results here suggest that commitment features, in particular loss of liquidity combined with sole control of the account, are particularly appealing to people with greater self-control and have positive impacts on female decision-making power.
Present bias	People prioritize today's desires and needs over tomorrow, and as a result systematically fail to make choices that will only benefit them in the future. Real world application: • Retirement savings • Sticking to plans
Age-processed renderings of the future self	• Helping people identify more with their future selves can help them overcome present bias Study: Increasing Saving Behavior Through Age-Progressed Renderings of the Future Self

	Researchers: Hal Hershfield, Daniel Goldstein, William Sharpe, Jesse Fox, Leo Yeykelis, Laura Carstensen, and Jeremy Bailenson Country: United States In line with research that shows that people may fail, because of a lack of belief or imagination, to identify with their future selves, the authors propose that allowing people to interact with age-progressed renderings of themselves will cause them to allocate more resources to the future. In four studies, participants interacted with realistic computer renderings of their future selves using immersive virtual reality hardware and interactive decision aids. In all cases, those who interacted with their virtual future selves exhibited an increased tendency to accept later monetary rewards over immediate ones.
Labeling as a soft commitment device	Labeling products for specific uses has little to no cost to the financial institution but can lead to changes in saving and spending behavior. Labeling is a soft commitment device and does not have to be enforced by penalties or liquidity constraints.
Labeling savings for health: up to 128 percent increase in health investment	• Labeled products in Kenya were effective at increasing savings as well as preventative health expenditures from those savings by between 67 percent and 128 percent. Labeling increased the likelihood that savings would be used for its intended purpose, without any restrictions on use. Study: Why Don't the Poor Save More? Evidence from Health Savings Experiments Researchers: Pascaline Dupas, Jonathan Robinson Country: Kenya To estimate the relative importance of the different types of barriers to savings, the researchers randomly varied access to a set of saving devices specifically designed to alleviate one or more of the barriers discussed above. One hundred and thirteen ROSCAs were randomly assigned to five groups: four of the groups were given specific savings devices to use in addition to their regular weekly savings, while the fifth group served as a comparison In the first two treatment groups, members of the ROSCAs were given a locked metal box (with an opening in which deposits could be made) in which they could save at home. In the first group – the "Safe Box" group – members were given the key to the lock and could therefore take money from the box whenever they wanted, even to spend on non-health products. In the second group – the "Lock Box" group – members were not given the key and had to call the program officer in order to

	open the box. Once opened, the money in the box could only be used to buy health products. The other two treatments were at the ROSCA level. In the third treatment group, individuals were encouraged to use their existing ROSCA to create a "Health Pot" in which members would contribute an additional amount during regular meetings earmarked for health products only. In the fourth group, individuals were encouraged to save in an individual "Health Savings Account" (HSA) that would be held at the ROSCA and earmarked for emergency health costs only (i.e. respondents were only allowed to withdraw this money if they needed it for a health emergency). In all five groups, participants were encouraged to save for health savings goals. Thus, any effect of a savings product above and beyond the control group should be attributable to the product itself A year after the intervention, individuals in the Safe Box and Health Pot groups had significantly higher levels of investments in preventative health products than those in the comparison group. Relative to comparison group individuals, the Safe Box increased investment by 67 percent, while the Health Pot increased investment by 128 percent. As expected, the Health Savings Account had no effect on this measure. Surprisingly, however, the Lock Box had no effect either. This lack of an effect is because the value of tying up money towards health is outweighed by the cost of completely limiting liquidity (for instance, to deal with unexpected income shocks).
Labeling for remittances: 15 percent increase in money remitted	• Labeling an international remittance product for a specific use, in this case a child's education, increases the amount of money sent by 15 percent, almost equal to the impact of creating a direct payment channel to the school Study: Directing Remittances to Education with Soft and Hard Commitments: Evidence from a lab-in-the-field experiment and new product take-up among Filipino migrants in Rome Researchers: Dean Yang, David McKenzie, Giuseppe de Arcangelis, and Erwin Tiongson Country: Italy The introduction of simple labeling for education raised remittances by more than 15 percent relative to migrants who were not offered the labeled or direct payment product. They sent about €708 of a possible €1,000 home relative to €615 in the comparison group. Labeling also increased the likelihood that migrants would remit at all by 4.6

	percentage points. Adding the ability to directly send this funding to the school only added a further 2.2 percent. This suggests that migrants are prepared to remit more money when given the option to explicitly label some of this money for education purposes. Giving the migrant more control over how the money is actually spent, by transferring their remittances directly to the school, resulted in little additional increase in the amount of money they sent home.
Inertia	People have a strong preference for the status quo, regardless of whether it is better or worse for them than available alternatives Real world application: • Automated behaviors • Defaults • Savings & loan payments
Organ donor consent in Europe	Anything that requires a person to take action to complete a goal, for example by signing up for a service or benefit, will lower the likelihood that the person successfully achieve that goal. Individuals tend to prefer the status quo over making a change. Organ donor programs in European countries have exploited this bias to increase organ donor consent rates among the population. By asking potential donors to opt out of the program, rather than to take an extra step to opt into the program, they are able to increase rates of organ donor consent.
Defaults leverage customer inertia for positive outcomes	Automatic ("opt-out") enrollment is a simple product design modification in which consumers are informed they will be automatically enrolled in a product or service unless they choose to opt out. Setting the default to "opt-out" instead of "opt-in" has been shown to significantly increase uptake of certain savings products and lead to behavior change through automation, for example by increasing participation in retirement and savings plans. It is important that financial services providers use these tools with care, fully and conspicuously inform their customers about the product or service into which they will be enrolled and give customers full freedom to make a different choice or opt out at any time.
Defaults for saving in Afghanistan	Automatic enrollment or setting the default to "opt-out", can significantly increase participation in retirement and savings plans. Study: Mobile-izing Savings: Defined-Contribution Savings on a Mobile Money Platform in Afghanistan Researchers: Joshua Blumenstock, Michael Callen, Tarek Ghani Country: Afghanistan

Researchers partnered with Roshan, a large telco, to test multiple interventions designed to increase use of a mobile savings account available to all Roshan employees. This account, called M-Pasandaz, is linked to each employee's existing M-Paisa mobile money account so that employees may deposit and withdraw funds to the M-Pasandaz account using the nationwide network of M-Paisa agents. Employees were randomly assigned to groups to test the impact of two main interventions:

Default contribution: Employees were first randomly assigned to one of two groups. In the first group, five percent of their salaries were automatically deposited into the savings accounts. They could change their automatic contribution levels or opt-out of the automatic contribution plans at any point. The second group received the status quo, access to the M-Pasandaz account, but no portion of their salary was automatically deposited.

Employer savings-match incentive: Each of the two groups mentioned above were further divided into 3 sub-groups:

1. 50 percent match: For employees in this group who made regular contributions to their M-Pasandaz account for at least 6 months, without making any withdrawals, Roshan matched half of what they saved, up to 10 percent of their salary.
2. 25 percent match: For employees in this group who made regular contributions to their M-Pasandaz account for at least 6 months, without making any withdrawals, Roshan matched one quarter of what they saved, up to 10 percent of their salary.
3. Comparison: Roshan did not match any portion of the savings for those in the third sub-group.

In the absence of either an automatic contribution or an employer match, savings levels were low, about one percent. However, both of the primary interventions were effective at increasing contribution rates and savings.

Effects of default contributions: Across match levels, two months after the interventions began employees who were assigned to have five percent of their salary automatically deposited into the M-Pasandaz account were approximately 40 percentage points more likely to contribute than those were not. This effect of setting this default contribution was roughly equivalent to the employer offering to match half of the employee's contribution. At six months, after the latter set of interventions, this difference remained 33 percentage points. Over the

	six-month study period, those in the default contribution group saved on average an additional 2,426 Afghanis (approximately US $40). **Effects of savings matching:** When the employer matched one quarter of the employee's savings, the number of employees saving through the program increased by about 25 percentage points. When the employer matched one half of the employee's savings, participation jumped about 47 percentage points.
Inattention	There are limits to our attention. It can be difficult to remember the future in the face of all we have to deal with day-to-day. Real world application: • Savings • Payments • Sticking to plans
The Monkey Business Illusion	The video for this module can be found here, from Daniel J. Simons. This video is part of a two-part study done by economists Daniel Simons and Christopher Chabris to study the limits of human attention. This video is an example of "inattentional blindness," that is, the failure to see something obvious when concentrating on something. After watching the video, how well did workshop participants fare in the test? How many saw the gorilla, and how many noticed other unexpected changes? Prompt a discussion on the lessons that financial service providers can draw from this video, both related to client money management habits as well as implications for consumer protection.
Reminder messages to counteract limited attention	Reminders are a cost-effective tool which in fighting procrastination and helping people follow-through on their goals. They can help individuals save more, repay loans, and follow through on important actions.
Reminders led to an increase in savings balances	• In Bolivia, Peru, and the Philippines, clients receiving reminders saved more and were more likely to reach their savings goals Study: Getting to the Top of the Mind: How Reminders Increase Saving Researchers: Dean Karlan, Margaret McConnell, Sendhil, Mullainathan, Jonathan Zinman Country: Bolivia, Peru, Philippines

	In Bolivia, Peru, and the Philippines, clients with commitment savings accounts who received messages reminding them of their savings goals saved more and were more likely to reach their goals than clients who did not receive the messages. Each bank sent monthly reminder messages, either by letter (Peru) or text message (Philippines and Bolivia). The reminders mentioned a client's savings goals, a financial incentive, or both a goal and an incentive. The reminders produced an average 3 percentage point increase in savings on a base of 55 percent. Since the text reminders were so inexpensive to administer, this approach was cost-effective for financial service providers.
Message content & timing matter	• Messages that mentioned both a savings goal and a financial incentive were most effective. • Messages that used positive versus negative motivation were equally effective. • Regularly scheduled monthly reminders were effective. When a client was late in making a deposit and an extra reminder was sent out, it did not have any additional impact on savings. • Mailing reminders was not cost-effective for providers.
Choice Overload	People have a difficult time deciding when faced with many options; this is called decision paralysis. When faced with many choices that are difficult to compare, consumers may end up making no choice at all. Real world application: • Consumer protection • Product selection • Financial capability
The jam experiment	Less is more. A 2000 study from psychologists Sheena Iyengar and Mark Lepper demonstrates the impact of choice overload on consumer behavior. In this study, researchers looked at sales of jam at the supermarket. When shoppers were presented with a table of 24 jam samples, 60 percent visited the table to taste the jams, but only 3 percent ended up buying a jam. Conversely, when shoppers were presented with a table of only six varieties of jam, less customers visited the table (40 percent), but more customers purchased a jam (30 percent).
Number of pension funds offered vs. employee participation	More choice leads to lower enrollment in financial services as well Study: How Much Choice Is Too Much? Contributions to 401(K) Retirement Plans Researchers: Sheena Iyengar, Wei Jiang, and Gur Huberman Country: United States

	Sheena Iyengar, Wei Jiang, and Gur Huberman published a follow-up to the jam experiment in 2004, this time looking at enrollment in 401(k) plans in the United States (voluntary employer-based retirement savings accounts). They found that 401(k) plans that offered more funds had a lower probability of employee participation.
Bounded Rationality	Human judgments are limited by available information, time constraints, and cognitive limitation. <u>Real world application:</u> • Consumer protection • Product selection • Financial capability
Is this a duck?	Most of us are not experts in every field. How do we make decisions? • Rules of thumb are mental shortcuts that help us make decisions • Reduce time and effort • Based on rough approximations or experiences – not exact, but usually good enough On this slide, how do we know what animal this is? • It looks like a duck: It has a beak • It walks like a duck: It has webbed feet These are the rules of thumb, or mental shortcuts that we apply to determine that this animal is a duck. Be careful when using rules of thumb though, as they are guiding principles based on knowledge and experience but may not be accurate or appropriate in every situation. • The same rules of thumb could lead us to misidentify this platypus, which also has a beak and webbed feet What are implications for these rules of thumb in the consumer finance world?
Using rules of thumbs for more effective financial education outcomes	Replacing complicated financial education curricula with simple, easy to remember rules of thumb can increase the chance that concepts taught will be translated into behaviors Study: Keeping it Simple: Financial Literacy and Rules of Thumb in the Dominican Republic Researchers: Gregory Fischer, Antoinette Schoar, Alejandro Drexler Country: Dominican Republic

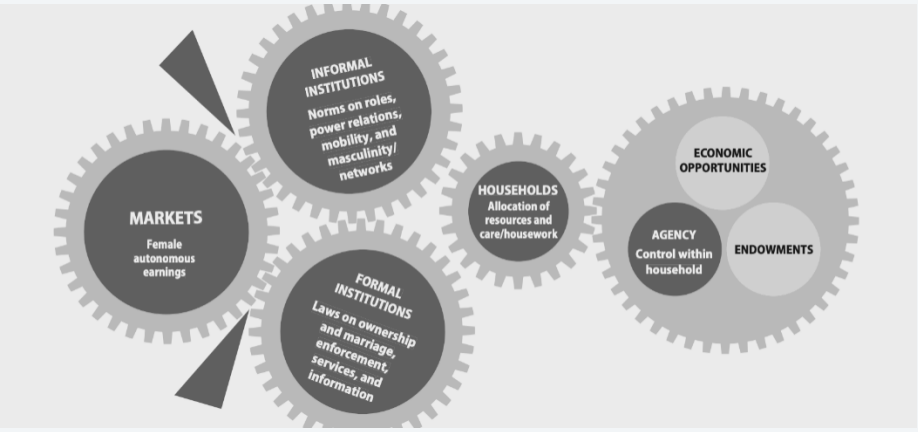
	Researchers partnered with the bank ADOPEM to evaluate two methods of financial literacy training: one which emphasized classic accounting principles, and one which focused on simple "rule of thumb" methods for decision making. Effects on Business Practices: Results indicate that the "rule of thumb" treatment had significant effects on clients' business practices. The likelihood that clients were separating business and personal cash and accounts, keeping accounting records, and calculating revenues formally increased by 6 percent to 12 percent relative to the comparison group. By contrast, the accounting treatment seems to have had no impact on business practices. Effect on Revenue Streams: Participants in the "rule of thumb" treatment reported an increase of 0.11 standard deviations on an index of revenue measures. The most significant effect is observed in the level of sales during bad weeks. The "accounting" treatment had no impact on revenues.
When do I apply nudges?	Four rules of thumb for implementation of nudges. Probe for a conversation about each of these principles in the group, and how they may apply to their own work.
Is this a problem that can be solved with a nudge?	1. Understand the problem you're trying to solve for. Talk to clients. Is the barrier behavioral or something else on the supply side?
What do you want to achieve?	2. Define the outcome you want to achieve and know how you will measure it. Create a theory of change leading to that outcome.
Segmentation matters	3. People have different personalities. Nudges affect different personality types differently.
Is it worth it?	4. Is the change you see worth the cost of implementation? Need more data on cost-effectiveness.

UNDERSTANDING GENDER BARRIERS

DAY 1

6. UNDERSTANDING GENDER BARRIERS

Time & Format	Lesson Objectives	Materials
30 minutes Presentation	• Introducing gender-based barriers and how they may affect women's success	PowerPoint

Slides	Facilitator Notes
Women's agency and economic empowerment	"A woman is economically empowered when she has both the ability to succeed and advance economically, and the power to make and act on economic decisions"
What is agency?	Ask one of the participants to read out loud this statement. "Agency can be understood as the process through which women and men use their endowments and take advantage of economic opportunities to achieve desired outcomes. Thus, agency is key to understanding how gender outcomes emerge and why they are equal or unequal." Source: World Development Report, The World Bank (2012) From this statement discuss examples of agency from the lives of each of the participants. How were they able to exercise agency to achieve certain goals?
How do agency and empowerment interact?	

At this stage, moderate the conversation to discuss how several of the factors listed in this graph may have been obstacles to participants to exercise increased agency in the examples they gave. Remember to do this from a place of empathy. Once the discussion is going, move into explaining how these constraints look from a gender perspective.

- Formal constraints on women's agency (such as legal restrictions or discriminatory practices) are not the only potential barriers to women's economic empowerment
- Women may be clustered in different economic activities and productive sectors and may work more in the informal economy than formal. How does this impact access to finance and economic empowerment?
- Cultural and social norms, as well as status of women within their own households, also factor into women's access to and use of financial products

Prompt a discussion on the status of women in your country with regards to these

Source: [World Development Report, The World Bank (2012](#))

Gender barriers to financial inclusion

GENDER BARRIERS TO FINANCIAL INCLUSION

DEMAND SIDE BARRIERS	SUPPLY SIDE BARRIERS	LEGAL & REGULATORY BARRIERS
• Lack of bargaining power within the household • Concentration in lower-paying economic activities • Competing demands on women's time related to unpaid domestic work • Lack of assets for collateral • Lack of formal identification • Reduced mobility due to time constraints or social norms • Lower rates of cell phone ownership among women, needed to access many digital products	• Inappropriate product offerings • Lack of gender-specific policies and practices for product design and marketing • Inappropriate distribution channels	• Account opening requirements that disadvantage women • Barriers to obtaining formal identification • Legal barriers to owning and inheriting property and other collateral • Lack of gender-inclusive credit reporting systems

This table lists some of the most commonly cited demand and supply side barriers, as well as the legal and regulatory barriers, that women face in accessing and using financial products and services.

To list a few examples:

- Women may disproportionately lack assets such as land to serve as collateral for loans

	• Women may have lower rates of cell phone ownership, or share a cell phone within the household, limiting their ability to access digital financial services • Imbalanced relationship within the household and a lack of bargaining power may impact women's agency over spending and investment decisions Financial products which don't take specifically take gender-based barriers into account often exclude women or provide no real value proposition to them. Financial service providers and other stakeholders can leverage appropriate product design features to overcome some of these barriers to women's financial inclusion. However, broader social constraints related to intra-household bargaining power and the social status of women may continue to limit the broader impact of financial inclusion on women's economic empowerment. Source: Women's Economic Empowerment Through Financial Inclusion, IPA (2017)
Gender gap in formal credit use	Women access formal credit at lower rates than men almost everywhere, in [Latin America] – Use data from the World Bank's Global Findex to customize the presentation with data for the country and region where this workshop is being developed: https://globalfindex.worldbank.org/
Country-level slide	This slide can be customized to show country-specific data
Potential gender norm barriers	Barriers to women's economic empowerment and economic participation *Demands on time related to women's role in household:* • Taking care of children, buying items for the household, chores, other family responsibilities *Gender norms for business and labor choices* • What are some occupations women locally are not able to enter because of their gender?

	• What are some occupations where the majority are women? How do these occupations fare economically? *Mobility restrictions* • Are there any social or security risks for women who travel alone? *Degrees of control over resources* • What is a woman's agency over household choices?
Digital financial services may be better at addressing some gender norm barriers to empowerment	Digital financial services offer an opportunity to offer financial services to women in more individualized channels. 1. Facilitate better access to economic resources: 2. Offer more privacy and control
Better access to economic resources	Improve effectiveness of cash transfer programs targeting women • In Niger, delivering cash transfers electronically increased the likelihood (from 8 to 47 percent) that the recipient, who was a woman, was solely responsible for obtaining the transfer • Households in which women received cash transfers electronically had higher diet diversity and children consumed more meals per day (Aker et al., 2016) Studies: • Payment Mechanisms and Anti-Poverty Programs: Evidence from a Mobile Money Cash Transfer Experiment in Niger (Jenny Aker, Rachid Boumnijel, Amanda McClelland, and Niall Tierney 2016)
Privacy and control	Private accounts for women impact the decision to work • In India, depositing work payments into female-owned bank accounts led to significant increases in both work and economic engagement especially among women particularly limited by prevailing gender norms. • Women who received the treatment were 7 percentage points more likely to have worked for pay in the past year and had 30 percent higher earnings

	Studies: • An Account of One's Own: Can Targeting Benefits Payments Address Social Constraints to Female Labor Force Participation? (Erica Field, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore 2016)
Privacy and control	Product features can offer women more control over use of funds • In India, women who received pay for work directly into a private bank account were more likely to make purchases with their own money (Field et al., 2016). • Liquidity preferences: In Kenya, providing free ATM cards caused individuals with a stronger position in the household, the majority men, to significantly increase usage of the accounts, while individuals with low household bargaining power, the majority female, reduced account usage (Schaner 2016). • In the Philippines, offering an illiquid savings account led to increased expenditures on female-oriented durable goods such as sewing machines and kitchen appliances for married women with low bargaining power (Ashraf et al., 2010). Studies: • An Account of One's Own: Can Targeting Benefits Payments Address Social Constraints to Female Labor Force Participation? (Erica Field, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore 2016) • The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya (Simone Schaner 2016) • Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines (Nava Ashraf, Dean Karlan, and Wesley Yin 2006)

CREATING PERSONAS

DAY 1

7. CREATING PERSONAS

Time & Format	Lesson Objectives	Materials
45 Minutes Presentation & Activity	• Understand how to deploy personas to better identify pain points and prototype solutions.	PowerPoint Flip Chart Post-it notes Markers

CUSTOMER JOURNEY SLIDESHOW (10 MIN)

Slide	Facilitator Notes
What are personas?	• Personas are a descriptive and qualitative tool • Personas are an actual, in-depth profile of specific groups/types in your target audience: 1. Basic demographic 2. Financial and personal needs 3. Aspirations 4. Behavioral characteristics Not to be confused with target markets **Example:** Maria is a 45-year-old mother of 3 who receives remittances from her husband living abroad, and also sells food out of her home in a small informal restaurant. She is not comfortable using technology and prefers to receive her remittances in cash. She is a regular saver but keeps her savings in cash at home rather than using a bank because she does not see the need to own a saving account. Her goals include providing an education for her three children and making sure they are able to obtain comfortable jobs when they done with schooling so that they can support her in retirement. She would also like to finish construction on a second floor of her home but has not been able to set aside enough money to do so. She has traditional sensibilities and is not an earlier adopter of new ideas or products. She gets most of her information from friends and neighbors and listens to the radio at home. She is very busy between her

	children and her restaurant, which sells lunches during the day, and so she doesn't have a lot of free time for leisure.
Why use personas?	1. Provide a lens through which to understand the experiences and perspectives that may govern a person's experience using financial tools and meeting their needs and goals 2. We will use the personas developed here to anticipate biases and experiences for each persona along our client journey 3. By understanding the assumptions we are making about our clients, it provides a space to develop hypotheses for product innovation
Factors that influence financial decisions	FACTORS THAT INFLUENCE FINANCIAL DECISIONS Factors to keep in mind when developing personas.
Back to inspiration	 Recall this framework for the financial decision-making ecosystem from the Inspiration phase. We previously reviewed the behavioral biases as well as the gender barriers affecting people's decision-making. Can we develop coherent profiles that bring together all these learnings?

	FACTORS	NEEDS	ASPIRATIONS
FINANCIAL	• Income • Investments • Government benefits • Networks	• Basic living expenses • Unexpected expenses • Family support • Business expenses	• Raise living standards • Invest in education • Invest in income sources
EMOTIONAL AND SOCIAL	• Behavioral biases • Network size • Role: provider, contributor, dependent • Cultural views	• Privacy • Liquidity • Flexibility • Status	

ACTIVITY 4 – CREATING PERSONAS (35 MIN)

Work as a group to develop 3-4 personas relevant to your target audience, and related to product mapped in your journey mapping for each profile, begin by listing these characteristics:

- Basic demographic
- Financial and personal needs
- Aspirations
- Behavioral characteristics

Encourage participants to use Post-it notes of different colors to jot down all these characteristics and to add as many details as they see fit.

Then, draw a portrait of each of the client personas that describes their characteristics, either visually or with key words and phrases. Participants should use colors and other materials and visual aid to add texture to these representations.

IDENTIFYING PAIN POINTS

DAY 1

8. IDENTIFYING PAIN POINTS

Time & Format	Lesson Objectives	Materials
45 Minutes Presentation and Group Activity	• Identify the pain points for client personas	PowerPoint Flip Chart Post-it notes Markers

IDENTIFYING PAIN POINTS SLIDESHOW (5 MIN)

Slides	Facilitator Notes
Back to your client journey maps	We are now going to ask you to return to your groups and continue adding a new layer of detail to your customer journey maps
Take the journey in your client's shoes	Review the client journey map your team created revisit each step from the perspective of each of your client personas. How would each of your people experience each of these steps? What are the differences between each of the personas' experiences? Are there any commonalities?
... And count the pain points	How many pain points can you identify for each of your client personas? • Are they behavioral? • Are they related to social norms? • Are they related to the physical environment? • Are they regulatory? • How are they related to the customer's needs and preferences? • How are they related to the design of the product or channel itself?

ACTIVITY 5 – IDENTIFYING PAIN POINTS (40 MIN)

Return to your groups and begin listing all the possible pain points along the customer journey mapping.

Using Post-it notes to write down each of the pain points your team identifies for each client persona and stick it to your customer journey map in the appropriate place.

Consider using a different color of Post-it notes to represent each of your client personas so that you can quickly review and synthesize the unique pain points experienced by each type of client.

Which of the pain points are related to the behavioral economics research we reviewed earlier?

SHOW AND TELL AND END OF DAY 1

Time & Format	Lesson Objectives	Materials
30 Minutes Group presentation	• Provide a high-level overview of the pain points identified in the previous session • Provide an overview of the content of the second day	PowerPoint Flip Chart Post-it notes Markers

SHOW AND TELL (30 MIN)

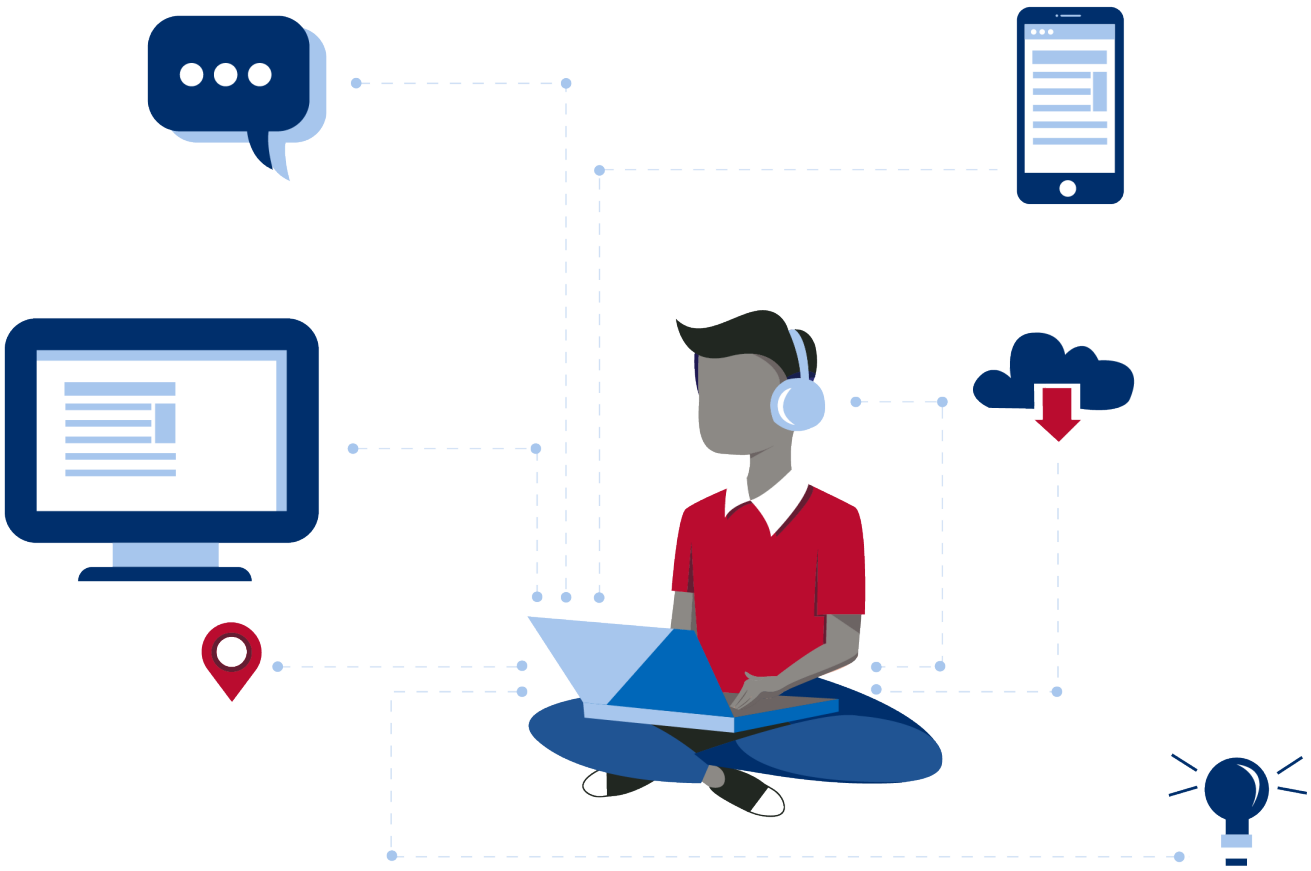
Slides	Facilitator Notes
Discussion	Provide each group with 10 minutes (or less) to present to the other groups in the workshop: • The problem statements • The main steps along their customer journey mapping • The client personas develop • The most important pain points that they identified along the way
Closure	• Provide an overview of the curriculum for day 2 • Thank participants for their participation throughout day 1 • If there are exit procedures or plan after the workshop, please use this opportunity to remind the participants

DAY 2

DAY 2

Time & Format	Lesson Objectives	Materials
5 Minutes Presentation	• Refresher on Day 1 activities • Setting the stage for the ideation and implementation phases	PowerPoint

Slides	Facilitator Notes
Day 2	Welcome to the second and final day of this training.
Day's Agenda	• Here's a quick overview for today. • We will dive right into ideation and designing our prototypes • We will present our solutions to the rest of the groups • You will learn about implementation and experimental methods to guide your organization's learning • How evaluations can help you improve program and product designs • Close with certificates of completion
Recap of Day 1	We covered a lot of ground yesterday, so here's a quick recap of what you saw: In the Inspiration phase, we discussed: • The behavioral biases that can impact the way that people behave when it comes to using financial tools to resolve a problem or take advantage of an opportunity • How behavioral biases can be addressed in financial product design • Gender-based barriers and social norms that can impact the experiences of women Using these inputs about the ways in which clients may experience financial services, we did the following exercises: • Defined a problem statement and mapped out the customer journey showing how customers currently resolve this problem • Developed client personas to represent the different observable and unobservable characteristics of different types of client profiles • Identified pain points for each client persona along the customer journey map, to see the experience from their unique perspective



PHASE 2: IDEATION

DAY 2

IDEATION: BRAINSTORMING AND PROTOTYPING

DAY 2

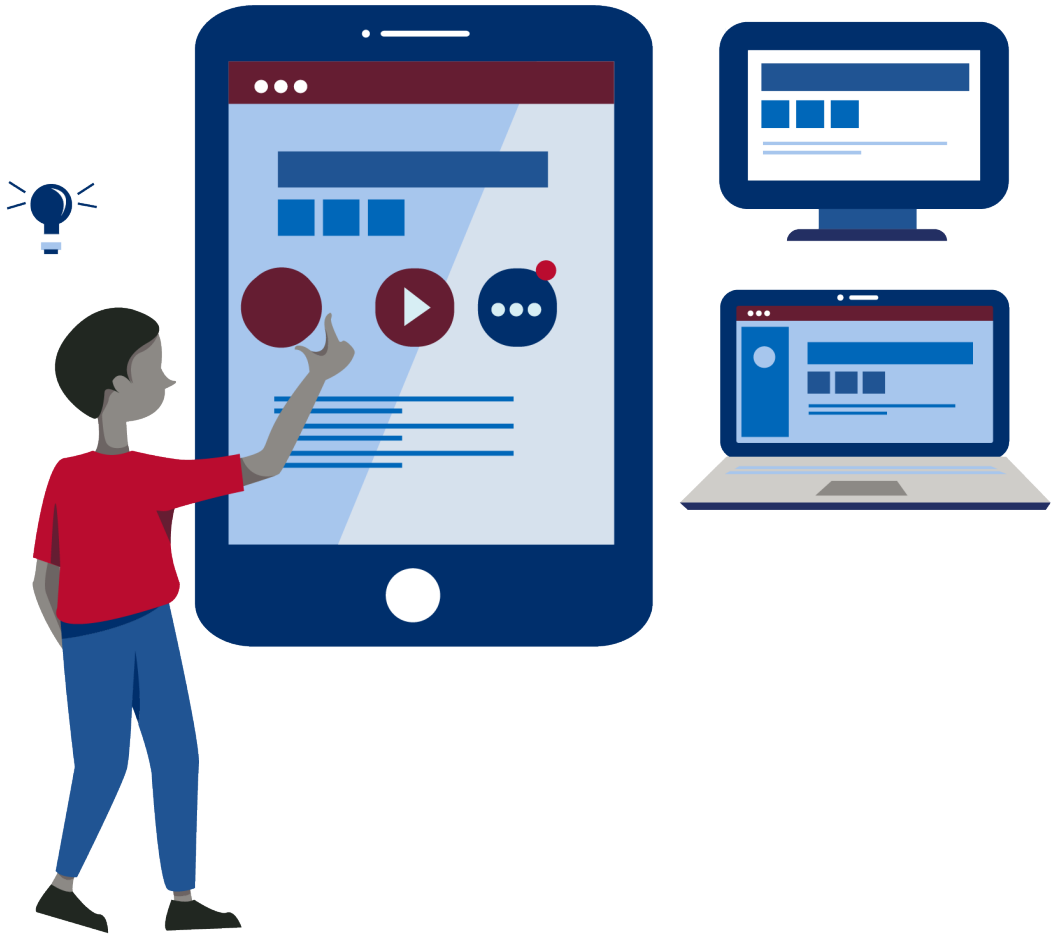
9. BRAINSTORMING AND PROTOTYPING

Time & Format	Lesson Objectives	Materials
Approx. 80 minutes Presentation and Activity	Develop ideas within each working group which can solve for one or more of the pain points identified along the customer journey	PowerPoint Flip Chart Post-it notes Markers Notepad

Slides	Facilitator Notes
Phase 2: Ideation	• For this last activity, we return to the pain points identified earlier • We will now work in groups to brainstorm potential solutions to one or more of these pain points • Remember to draw from the research from Day 1 • Who is your solution solving for? Which of the client personas could benefit, and which may not?
How to address critical points? (30 min)	• Individually, take 10 minutes to come up with as many solutions as you can to the pain points, or improvements to the customer journey that your group identified • Which persona does this solution benefit, or which set of personas? How do these solutions address their needs and preferences? • After the members have developed their solutions, provide another 15 minutes for participants to present ideas to the rest of their groups • Through a moderated conversation, assist groups to bundle ideas if they are similar; and discuss how some may or not be reinforcing biases *Refer to the appendix for evidence-based design features to discuss with groups*
Rank your potential solutions	• Ask the groups to rank solutions according to potential and vote for the top solution • Use the criteria in the next slide to evaluate these ideas

Criteria for evaluation	• Does this solution respond to the correct problem?
	• Will this solution improve the customer experience?
	  ○ Is there evidence to suggest that?
	  ○ What value does it add for the customer?
	• Is it feasible to implement?

	○ Are there the tools to make it happen? ○ Who would be involved? • Will this solution change the competitive landscape? ○ Is it different from the solutions that competitors offer?
Prototyping (30 min)	• Now that your groups have selected a solution, they will do one of two things: ○ Do a visual mock-up of the product you're trying to make; OR ○ Develop a script of the process change you have devised Groups will present a pitch to the main group for their solution using these materials. Make it fun! Pitches may take the shape of an advertisement or a skit that can be performed by group participants. Be creative!
Presentation of Solutions (20 min)	• Participants will have 5-10 min each to make a pitch for their prototype to the audience. In this pitch, they should describe the pain point(s) this solution is solving for, and how their solution addresses those problems • Make room for questions, feedback, and discussion after each of the presentations



PHASE 3: IMPLEMENTATION

DAY 2

IMPLEMENTATION: THEORY OF CHANGE AND LEARNING AGENDA

DAY 2

10. IMPLEMENTATION: THEORY OF CHANGE & LEARNING AGENDA

Time & Format	Lesson Objectives	Materials
90 minutes Presentation	Understand the importance of developing a learning plan that adjusts to your organization and the project's scope	PowerPoint Flip Chart Post-it notes Markers

Slides	Facilitator Notes
Where to go now?	• We know the problem we want to address (Inspiration) • We have a solution to go with it (Ideation) • How do we know it's working?
How do we know it's working?	• Start by mapping the path to change for your given solutions • Design the appropriate learning agenda • Evaluate and iterate

Types of evaluation	• There are many approaches to program evaluation, each addressing specific questions and providing different information.
	• Types of evaluation
	  ○ Needs evaluation: Helps you understand the problem
	  ○ Theory evaluation: How, in theory, should the proposed solution respond to the problem?
	  ○ Process evaluation: Does the solution work as intended? Is it being implemented correctly?
	  ○ Impact evaluation: Did the solution achieve its impact goals? What is the magnitude of impact?
	  ○ Cost-effectiveness evaluation: Given the cost and magnitude of impact, how does this solution compare to alternatives?
	
	In the Implementation phase of HCD, we focus on the last three types of evaluation: process, impact, and cost-effectiveness.

Causal hypothesis	**Question:** How do we expect these results to be achieved? First, we need to define our hypothesis. **Response:** If [Inputs] produce [results] this **will lead to** [Impacts], which will **contribute** to [goal].
Theory of change	• A theory of change is a strategy used in the design and evaluation of social programs to explore how any desired change will be achieved • It is a mapping of the logical chain of how the inputs or changes to the program or product will result in changes for the beneficiaries • In the context of financial product design, it can serve as a very useful tool to incorporate customer side welfare and performance objectives more centered around them
Components of a theory of change (I)	• **Inputs/Activities:** The day-to-day tasks an organization must undertake in order to provide a product or service • **Outputs:** The products or services produced by the program activities; deliverables. • **Outcomes:** the intended results of the program; the change it seeks to create • **Impact:** used in many different ways, but used here as a measure of program outcomes, the program goal Discuss an example from a workforce development training program which offers job skills classes to youth. • **Inputs:** Students are trained to improve their marketable job skills • **Outputs:** Number of students trained • **Intermediate outcomes:** Graduates have improved skills • **Intermediate outcomes:** Graduates secure better jobs • **Impact:** Increased youth employment in the community
Components of a theory of change (II)	Our Theory of Change will likely include outcomes that are outside of the direct control of the intervention. For example, a graduate may complete the training but decide they don't want to seek employment.
Defining a learning agenda	Each link between steps in our theory of change is based on assumptions that are made during the intervention design phase. We assume that activities will lead to outputs, and outputs will lead to outcomes. Where

	possible, these assumptions should be based on evidence from existing research that can demonstrate a causal impact between each piece. If that literature does not exist, there is a chance to test these assumptions as part of our learning agenda. Let's take the example of vocational training Activity: Vocational Training Assumption 1: We assume there is demand for these trainings or that the promotions we are making will somehow garner enough demand Output: 20,000 students are trained Assumption 2: We then assume that the training is high quality Intermediate Outcome: Graduates have improved skills as a result of the training Assumption 3: Skills students receive are those demanded by employers Intermediate Outcome: Graduates secure better jobs because employers need those trainees Assumption 4: New jobs for trainees do not displace incumbents in those positions Final outcome: Increased youth employment in the community
Theory of change	Walk participants through these steps by selecting one of the solutions developed by their groups. Fill out the information in the corresponding boxes as the classrooms provides answers to these steps. Be prepared to cultivate a discussion on what should go into each of the outcomes and assumptions. 1. **Activity:** What is the main activity taking place? 2. *Assumption 1:* What must happen for the activity to be implemented? 3. **Output:** What is the measurable and immediate product of this activity? 4. *Assumption 2:* What happens with this product and how does it map to outcomes? 5. **Intermediate Outcome:** What is the outcome of this activity that is a necessary next step to achieve the final outcome? 6. *Assumption 3:* Skills students receive are those demanded by employers 7. **Intermediate Outcome:** (If another step is necessary, please add here) 8. *Assumption 4:* Fill out accordingly if another outcome will happen 9. **Final outcome:** What is the high-level goal of this activity? What is its impact

Assumptions Part I

ASSUMPTIONS PART I

CATEGORY	CONCEPT *"Boxes" from the ToC or assumptions (numbered)*	INDICATOR(S) *Generally ignore for final outcomes/outputs*	DATA SOURCE *Survey? Admin data? Others? (Be specific)*	TIMELINE/ FREQUENCY *When is it collected? e.g., once at the end, weekly, quarterly, etc.*
ASSUMPTION				
ASSUMPTION				
ASSUMPTION				
ASSUMPTION				

Once the assumptions have been identified, the next step is to develop a learning agenda to test each of the assumptions. These learning questions can be answered from administrative data for monitoring purposes or may need to be evaluated as part of a randomized evaluation, depending on the question.

For each assumption, further define the learning question and strategies to measure and answer each question.

- Concept is the assumption
- Indicator is how that assumption can be measured numerically
- Data source refers to where this data will be drawn from
- Timeline/Frequency: how often should you collect that data
- Do the same steps for various assumptions

Assumptions Part II

ASSUMPTIONS PART II

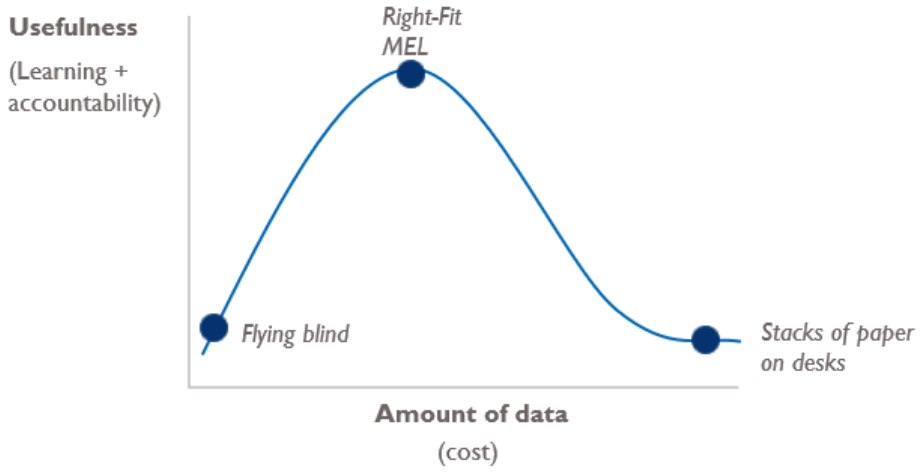
CATEGORY	CONCEPT	STRATEGIES	LEARNING OPPORTUNITIES	TIMELINE FREQUENCIES
		What can we try to make it hold?	*What question will we ask about this assumption?*	*How will we answer the question?*
ASSUMPTION				
ASSUMPTION				
ASSUMPTION				
ASSUMPTION				

Once indicators are identified, move on to testing each assumption. These tests will provide you with data needed to:

- Correct weaknesses in program delivery or design;
- Experiment with new approaches to improving performance;
- Measure return on investment;
- Quantify impact

Learning agenda: Prioritizing a right-fit plan

LEARNING AGENDA: PRIORITIZING A RIGHT-FIT PLAN



There is always a danger of collecting too much information or not enough. Data collection and research has a cost. Your challenge is to find the "right fit" for monitoring and evaluation given your needs and priority questions. You will need to identify a plan that is somewhere between completely flying blind and information overload.

RIGOROUS EVALUATIONS

DAY 2

11. RIGOROUS EVALUATIONS

Time & Format	Lesson Objectives	Materials
30 minutes Presentation	Understand the importance of rigorous evaluations in the decision-making toolkit	PowerPoint Flip Chart Post-it notes Markers

Slides	Facilitator Notes
Rigorous Evaluations	The most rigorous way to test the effects of a given intervention (a product or program), is through randomized evaluation
Attributing outcomes to the intervention	**For the facilitator:** **What is a randomized evaluation?** Randomized control trials (RCTs), randomized evaluations, rigorous evaluations, impact assessments are all a slightly complicated way of saying something really quite simple. If we want to know how effective a program is, we need to have a comparison group. Without a comparison, we are limited in our ability to know what would have happened without the program. And the only way of having an equitable comparison group is with random assignment. **Why randomize?** Randomized evaluations provide the most credible and reliable way to learn what works and what does not. Randomized evaluations use the same methods frequently used in high-quality medical research and rely on the random assignment of a program or policy to measure its impact on those that received the program compared to those who did not. **How do randomized evaluations work?** In the simplest kind of study, the group we are looking at is divided randomly in two. One group receives a program or intervention, and the other does not. Since assignment to each group is random, everyone has equal probability of receiving the program or not. With random assignment, each person in the study has the same chance of being assigned to a group as another person. This ensures that as long as the two groups are large enough, they will on average be statistically identical. Any change which we then observe between the two groups can

	be attributed entirely to the program or intervention itself, rather than other external or unobserved factors. • The **counterfactual** represents the state of the world that program participants would have experienced in the absence of the program (i.e. had they not participated in the program) • **Problem:** Counterfactual cannot be observed • **Solution:** We need to mimic or construct a counterfactual
Selecting a comparison group	• Select a group that is exactly like the group of participants in all ways except one: their exposure to the program or product being evaluated • Any difference that subsequently arises between them can be attributed to the program rather than to other factors.
A/B tests	• These are rigorous tests, but more agile • Designed to improve the design of a product or program, product take-up, and/or the use • A good practice among Tech and marketing companies
You've already participated in many A/B tests without knowing	• The big tech companies do hundreds of tests on layout and messaging and many other aspects of their design • They do this to rigorously understand whether certain design elements will lead to better conversion metrics
The $60 Million Test	• This section describes a series of A/B tests led by Dan Siroker, the former Director of Analytics for the Obama 2008 presidential campaign. • In the 2008 U.S. presidential campaign in 2008, the data analytics team for then candidate Barack Obama experimented with 2 parts in the sign-up form on their website: • The main banner and the prompt button • They tried 4 prompt buttons and 6 different types of banners (including images and videos)
The $60 Million Test	• The winning variation is on the screen • The biggest impact was from images, not videos, even though the campaign staff loved the videos.

	• It had a sign-up rate of 11.6 percent vs 8 percent in the original page, or a 40 percent improvement • This led to an additional 2,880,000 email addresses which translated into an additional $60 million in donations to the campaign For more information, visit the Siroker's blog post on the experiment.
Benefits of A/B Test	A/B Tests present a lot of benefits: They can leverage information from administrative data that you are already collecting to answer questions at lower cost • Administrative data vs. household surveys ($$) Their implementation can be low-cost • Low cost, scalable interventions, leverages technology The results loop can be much faster also • Focus on short-term results such as product take-up and utilization
Limits of A/B Testing	**They can be *atheoretic*** • Allows you to perform many tests without theory of change • Why does a pink button work better than a black one? There is probably no theory there **Limited results measurement** • Limited to data already captured by administrative data, impossible to answer questions about downstream impact **Large samples required** • To measure small changes, large populations are required **Small effect size** • Small, incremental changes; small marginal impact
Case Study: Micro-pensions	Researchers used A/B testing to identify the most cost-effective combination of SMS messaging content and duration to increase savings in a voluntary pension savings account – They found that each dollar spent on a 10-month SMS messaging regime encouraging savings, regardless of the content, led to a $17.36 increase in retirement savings. Study: Increasing Voluntary Contributions to Retirement Savings in Colombia Researchers: Dean Karlan, Jonathan Zinman, Jake Kendall, Kyle Holloway Country: Colombia Researchers conducted three A/B tests over one year, each lasting five months, which each tested different messaging content targeting different behavioral barriers to saving for retirement compared to a standard

	savings message. During each wave, individuals enrolled in the retirement savings program received a total of nine SMS messages, sent every other week. This iterative research design enabled researchers to optimize the messages tested and quickly inform the partner Colpensiones on the most effective and lasting strategies for improving savings behavior. 390,000 users were randomly selected to participate in these A/B tests. In addition to testing different messaging strategies among active product users, 80,000 users who had never completed a transaction in their account were randomly selected to receive a simple phone call during the third wave informing them about their saving account. Four types of calls were tested: human interactive, human rigid, prerecorded interactive, and prerecorded rigid. Overall, the text messages were effective at increasing the savings amounts of users who were actively saving before receiving messages but were not as effective at moving people from not saving at all to saving some. The impacts on saving were the same regardless of gender or location but were significantly higher for account holders with a higher income, who were older, or who had opened accounts more recently. *Savings goal messages*: Participants who received savings goal messages saved significantly more than the comparison and behavioral messages group. The results suggest that lower goals were more effective at increasing the number of savings deposits while higher goals were more effective at increasing the amount deposited. Also, messages that framed the goals as monthly performed significantly better than messages with annual framing. *Cost-effectiveness*: For active account holders, each dollar spent on five, ten, and fifteen months of messaging led to an increase in retirement savings of $10.71, $17.36, and $15.87, respectively. These results suggest that for active account holders after 10 months of messaging, investments in additional messages did not lead to additional gains in amounts saved. For inactive account holders, messaging was not shown to be a cost-effective way to increase retirement savings. In the best case tested, each dollar spent on (ten months) of messaging led to an increase in retirement savings of $1. *These results were preliminary as of November 2019.*
Indicators Pt. 1	A/B testing is useful for understanding the mots effective and persuasive way to communicate with customers. In the previous example, researchers experimented with a variety of different message framing approaches to

find the combination of messages and framing that would be most impactful fo each segment.

Examples of messaging content and framing which could be randomized as part of an A/B testing approach include the following-

PERSUASION	TIMING	INFORMATIONAL/EDUCATIONAL
Goodness	Time of day	Information about the bank
Coolness	Day of the week	Information about the process
Happiness	Personalized timing	Information about reliability
Negative persuasion	Frequency	Interest rates
Vision for the future	Duration	Cost of credit
Self-consciousness	Random timing	Prudential information
		Waiting times

Indicators Pt. 2

ATTENTION	
Attention to savings	Income level
A universal goal	Predictable future expenses
A pre-identified goal	Unanticipated future expenses
A random goal	Common expenses
Balances	Individualized expenses
History	A task
Low balance alert	A personalized task
Term of income	Peer group
Income uncertainty	

Impact in the theory of change

- Many times, the impact of a program or product may be out of scope for monitoring and evaluation strategies
- For example, if you want to understand the impact of your loan product on the food security, health & nutrition of your client, you will not be able to answer these questions through administrative data alone.
- To answer this question, you will still need to use a welfare impact randomized control trial (RCT) approach – create a counterfactual group which is the same as your treatment group, except for whether they used your loan product.
- This is like using an A/B test, except for a few key differences in purpose, outcomes, and data sources

AB tests vs. welfare impact RCTs

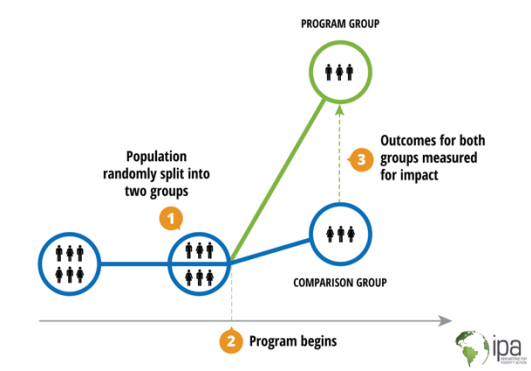
- Similarities between A/B Testing and Welfare Impact RCTs:
  - Both methodologies use randomized sampling
  - Both assign variations in product or experience randomly

Differences:

RAPID-FIRE RCTs FOR PRODUCT DESIGN	WELFARE IMPACT RCTs
• Usually a **low-cost modification** to an existing product • Largely **administrative** data (internal databases such as usage logs, transaction histories, or click rates) • Limited to first-order outcomes like **take-up and usage** of the producto in question	• A modification to an existing product or an entirely new product • Administrative and **survey** data (including household surveys) • **Welfare** outcomes such as income or consumption, as well as usage of complementary and substitutable products

So, whereas insights from the AB test can provide operationally rich information on take up and usage, welfare impact RCTs can complement those tests with information on how an intervention had a causal effect

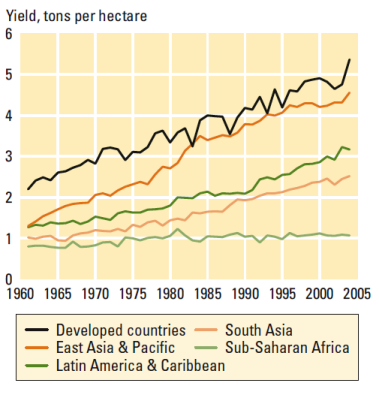
Randomized Control Trial Evaluations



- In a randomized evaluation the sample is divided between two statistically identical groups, different only in their random assignment to a treatment or control group
- Then, the outcomes of interest are observed in both groups
- The measure of the difference in those outcomes between the control and treatment groups is the impact; because we randomized assignment into each group, statistically speaking the only difference between outcomes for each group is the treatment itself
- Many randomized evaluations use direct survey data to capture outcomes which can't be observed from administrative data

For more information on designing RCTs for financial institutions, see the following resource: Evaluating Financial Products and Services in the US: A Toolkit for Running Randomized Controlled Trials

Evaluating impact: Fertilizer take-up and usage in Ghana	**For the facilitator:** The next five slides describe the following research study from Ghana on the impact of weather index insurance for farmers. This study demonstrates how an RCT can uncover flaws in our assumptions about binding constraints and inform future product interventions for better impact on our desired result, more than human intuition alone. Examining Underinvestment in Agriculture: Returns to Capital and Insurance among Farmers in Ghana Researchers: Dean Karlan, Robert Osei, Isaac Osei Akoto, Christopher Udry Country: Ghana In Ghana, the average farmer uses only 7.4 kg of fertilizer per hectare, while in South Asia fertilizer use averages more than 100 kg per hectare. Initial surveys in northern Ghana revealed that the median farmer participating in this study did not use any chemical inputs on their crops, often citing lack of money or concerns regarding weather risk as key obstacles preventing investment. Researchers tested the relative importance of capital and risk in driving farmers' investment behavior. From a total of 502 households, 117 were randomly selected to receive a cash grant to fund agricultural inputs; these farmers received approximately US$45 per acre for up to 15 acres, delivered at a time of their choosing. Another 135 randomly selected households received a grant for an insurance scheme that paid roughly US$75 per acre of maize if rainfall at a local weather station went above or below specified thresholds. Ninety-five households received both the cash grant and the insurance grant, while 155 households received no additional services and formed the comparison group. Farmers with weather insurance invested more in agricultural inputs, particularly in chemicals, land preparation, and hired labor. Total cultivation expenditures were more than US$188 higher for farmers with insurance, representing a 33 percent increase relative to the comparison group. These impacts were even larger among farmers who received both insurance and a capital grant. Results suggest that risk, rather than capital, was the major constraint on investment among farmers in this sample. Farmers who received the insurance grant increased their expenditure on farm chemicals, and also brought more acres of land under cultivation. If the primary constraint on

	investment was a lack of capital, then the insurance product, which offered no up-front payouts, would not have affected their ability to purchase materials.
Problem: Low crop yield in Africa	 Let's put this methodology in practice: At the time of this study, fertilizer use by farmers in sub-Saharan Africa lagged usage rates in other parts of the world.
3 Potential hypotheses	We propose three hypotheses which could explain this problem: 1. Farmers don't have enough capital to invest in more crops (need credit) 2. Farmers don't invest more for fear of unpredictable rain (need insurance) 3. Farmers do not use the right fertilizers and that is why yields remain low (need education)
Impact of Fertilizer: Earnings Increase	First, researchers tested the impact of different types of fertilizer on crop yield and profit to understand the most impactful combination for farmers. By comparing outcomes to each other and to a control group, they identified the impact of each type of fertilizer on farmer profit. Once they established the benefits of this fertilizer, what are the barriers to adoption faced by farmers?

	IMPACT OF ORGANIC AND INORGANIC FERTILIZER ON IN GHANA'S NORTHERN REGION (2010) Treatment | Maize Yield (kg/ha) | Added cost (cedis/ha) | Added Profit (cedis/ha) Control | 450 | 0 | 0 NPK + Ammonia | 2210 | 200 | 516 Commercial OF + N | 3274 | 408 | 733 Commercial OF + NPK | 3160 | 380 | 717
Impact of rainfall-indexed insurance	*Farmers with a rainfall-indexed insurance product invest more* A study in northern Ghana found that the offer of rainfall index insurance led farmers to make larger investments and riskier production choices than providing farmers with cash. This means that risk is more of a constraint for farmers than capital, and if we had to make a choice between cash transfers and insurance subsidies, the insurance subsidies may have a bigger impact on investment.
Results	• Rainfall-index insurance leads to a significant increase in investment by farmers • A capital injection doesn't have the same impact: the constraint in this case is risk aversion

TAKEAWAYS

DAY 2

12. TAKEAWAYS

Time	Lesson Objectives	Materials
25 minutes Presentation	• Reflect on the high-level learnings from the workshop	PowerPoint Certificates

Slides	Facilitator Notes
During inspiration:	Can my clients teach me something new about this problem? What behavioral biases could be at play? What segments are affected? What does their journey look like and how many pain points can I count? Motivate reflections from participants on the outcomes of this phase
During ideation:	How many ideas can we came up with to solve this problem? Which are most feasible What would that solution look like in real life? Discuss with participants any surprising findings or ideas that emerged. Which ideas seemed most creative? Which ones the most realistic? Why?
During implementation:	How will this solution lead to something new? What assumptions have I made? How can I measure them? Can we refine this solution based on those insights? Is there scope to evaluate the impact on our customers? Ask participant to think of the following: What challenges do they anticipate as this workshop comes to an end? Would they present these solutions at their home institutions? What next steps do they envision?

13. DEBRIEF AND WORKSHOP CLOSE

Time	Lesson Objectives	Materials
5 minutes Presentation	Open the floor to feedback, reactions and recommendations	PowerPoint Certificates

Slides	Facilitator Notes
Certificates	Hand out certificates to participants (15 minutes)
Thank you!	Provide check-out instructions, if any

APPENDIX – EVIDENCE ON PRODUCTS

Awareness

Financial literacy can increase the take-up of complex financial products and may have positive spillover effects on others by the diffusion of knowledge through social networks; but they can be expensive and difficult to scale.

In India, An invitation to an education program significantly increased farmers' adoption of rainfall insurance. Invited households were 5.3 percentage points more likely to purchase rainfall insurance than comparison households, and households that completed the education program were 8.1 percentage points more likely to purchase insurance (Gaurav et al., 2011).

In China, farmers receiving financial education were 14 percentage points (40 percent) more likely to sign up for insurance and having one additional friend attend an educational session increased a farmer's take-up rate by 5.8 percentage points (Cai et al., 2015).

Traditional classroom-based trainings have shown limited effects overcoming people's biases; however, some approaches have shown promise. Below five general rules:

1. Make it Simple and Actionable through Rules of Thumb;
2. Make it personalized through In-Person or virtual coaching;
3. Make it timely by aligning delivery with a financial decision;
4. Make it convenient: tablets for Lista beneficiaries and edutainment;
5. Target youth and young adults.

In "Beyond the Classroom: Evidence on New Directions in Financial Education", IPA (2017)

A client's trust in the service provider has a significant impact on the demand for the products offered:

In Ghana, farmers' demand for insurance increased over time as a farmer received insurance payouts and others in the farmer's social network received payouts as well (Karlan et al., 2014).

In India, endorsement from a well-known MFI increased demand by 10 percentage points among households familiar with the MFI (Cole et al., 2013, 2014).

Loans

Flexible collateral arrangements, like crop inventory or asset-collateralization, can encourage higher take up than traditional loans and perform as well.

Researchers in Kenya found that 42 percent of farmers who received an asset collateralized loan (requiring a 4 percent of loan value upfront deposit) took it up, while take up was only 2.4 percent for those who were offered the traditional joint liability loan (De Laat et al. 2016).

Credit schemes using in-kind collateral arrangements can still fail from insufficient take up, whether for reasons shared by any new credit scheme offer (e.g. lack of familiarity and/or trust, or prohibitively high costs to engage in new lending/trading relationships) or from uncertainty of future in-kind collateral value, particularly in volatile markets (Casaburi et al. 2014).

Modifying the disbursement and repayment schedule of a credit product can lead to more productive investments

Agricultural lending tailored to the farmers' seasonal cash flow may be an effective way to increase investments in agriculture and improve yields and profits. In Mali, providing farmers with loans at the beginning of the planting season, to be repaid in a lump sum at the time of harvest led to increased investment in agricultural input and value of agricultural output (Beaman et al., 2014).

Flexibility encourages clients to invest their loans more profitably, which ultimately reduces their financial stress.

In India, clients on monthly, as compared to weekly, repayment schedules reported feeling less "worried, tense, or anxious" about repaying. They were 54 percent more likely to report feeling confident about repaying and reported spending less time thinking about their loan compared to weekly clients. Relative to weekly clients, monthly clients more than doubled their business income on average, increasing their total household income by 84–88 percent. The study found no increase in short-run default or share of spending on temptation goods (Field et al., 2012).

Offering grace period to clients may promote entrepreneurship and business investment. In India, clients given a two-month grace period increased short-run business investment (6 percent) and long-run profits but also default rates (Field et al., 2013).

Increasing access to credit during the lean season can help farming households allocate labor more efficiently, leading to improvements in productivity and well-being.

In Zambia, farming households with access to loans produced 5.6 percent more agricultural output on average relative to households in comparison villages. They were almost 40 percent less likely to experience food insecurity during the lean season, were 4.9 percent less likely to do casual labor, and worked 33 percent fewer hours on average (Fink et al. 2014).

Relationship lending

Closer interactions between bank officers and SME clients improved repayment and future loan terms (Schoar 2012) in India. In the Philippines, participants randomly assigned to receive reminder text messages for loan repayment were more likely to repay when the loan

officer's name is mentioned, if the client was serviced by the loan officer previously (not for first-time borrowers) (Karlan et al., 2012).

Group loans

Offering individual lending products (for clients in group contracts) could help deepen client outreach without negatively affecting microlender profitability.

In the Philippines, removing the group liability component of loans did not lead to an increase in short- or long-run default. Individual liability did not worsen MFI profitability and increased the size of lending groups (Giné and Karlan 2014).

Peer enforcement can have large effects on individuals' repayment behavior, while peer selection may only be partly effective at generating information that banks can use to make lending decisions.

Compared to drop-in clients, referred clients in South Africa were 32 percentage points more likely to be approved for a loan. However, incentives for peer screening did not significantly improve repayment rates. Incentives for peer enforcement, on the other hand, did have a significant impact on various measures of repayment performance, between 9 and 19 percentage points (Bryan et al., 2015).

Insurance

Exposing households to a free, high-quality quality service for which they initially have a relatively low demand can improve the perception of the benefits they anticipate from the service and can subsequently increase their demand for the service, as well as for insurance products mitigating the risk of not accessing this service.

In India, health insurance policyholders offered a free, high-quality preventive checkup were 10 percentage points more likely to consult a qualified practitioner when ill within 2 months after the free consultation. They were also willing to pay an additional 53 percent of the premium to renew their insurance (Delavallade et al., 2017).

Also, In India, offering cash rewards to households in an amount equivalent to the cost of purchasing one insurance policy led to an increase in adoption of 40 percentage points, which was especially marked for poor households (Cole et al., 2013, 2014).

Uninsured risk, rather than a lack of capital, may be the primary constraint to underinvestment in agriculture.

In Senegal and Burkina Faso, farmers who purchased insurance invested significantly more in agricultural inputs than those who did not. Investing an additional 1000 FCFA in weather insurance led to a 10 percent increase in yields (Delavallade et al., 2015).

The provision of insurance can cause households to shift investments towards the production of higher-return but higher-risk cash crops.

Farmers in India who received rainfall index insurance were 6 percentage points (12 percent) more likely to plant cash crops, from a base of 45 percent. They also increased the amount of land devoted to cash crops by about half an acre (27 percent), from a base of two acres (Cole et al., 2013, 2014).

Price sensitivities: Demand for rainfall insurance is price-sensitive, and high insurance prices contribute to low demand.

In India, decreasing the price of the rainfall insurance product by 10 percent led to an increase in adoption of 10–12 percent. Assuming a payout ratio like US insurance contracts, demand for insurance would increase 36–66 percent. However, price discounts of this degree would still not prompt widespread adoption of insurance (Cole et al., 2013, 2014).

Product bundling

Bundling formal insurance products with loan products may not be desirable if consumers already feel implicitly insured by the limited liability inherent in the loan contract. However, bundling loans with weather insurance may be an attractive way for the lender to mitigate default risk. As a risk management tool, it may have the potential of increasing access to credit in agriculture at lower prices.

In Malawi, take-up was 33 percent among farmers who were offered the basic loan without insurance. Take up was lower, at only 17.6 percent, among farmers whose loans were insured against poor rainfall (Giné and Yang, 2009).

In India, the requirement to purchase health insurance when taking out a microcredit loan substantially lowered clients' loan renewal rates. Within a year of the program roll-out, loan renewal rates in treatment villages dropped to 55 percent, 16 percentage points lower than the 71 percent rate in comparison villages, suggesting that many were willing to give up microcredit to avoid buying insurance (Banerjee et al., 2014).

Digital Finance

Digital payments can create the opportunity to connect the poor to formal financial services.

In Mozambique, the randomized introduction of mobile money increased general financial literacy and led to more frequent remittances and the substitution of mobile money for informal savings among users (Batista and Vicente, 2013).

More broadly, digital payment integration can serve to help households smooth unexpected income shocks by providing access to money or support from a broader social network. Digital payments appear to both facilitate payment transactions as well as strengthen and expand informal insurance networks among poor households.

In Kenya, following a shock, households with access to M-PESA received funds from a larger network of senders located further away. M-PESA users were able to absorb large negative income shocks without any reduction in household consumption, while statistically

comparable households not connected to M-PESA experienced, on average, a 6-10 percent reduction in consumption in response to similar shocks (Jack and Suri, 2013).

Gender

Digital payments can increase the likelihood that women receive transfers and can also affect how the transfer is spent.

In Niger, delivering transfers electronically, compared to manual cash transfers, increased the likelihood (from 8 to 47 percent) that the recipient, who was a woman, was solely responsible for obtaining the transfer. Additionally, there is evidence that households which received their transfer electronically bought more types of food items and increased their diet diversity (Aker et al., 2016).

Some individuals with lower intrahousehold bargaining power, especially women, may have different preferences for degrees of liquidity and access.

A study in Kenya found that offering free ATMs, which increased the account accessibility, and reducing withdrawal fees caused individuals with lower household bargaining power (the majority, female) to reduce account usage (Schaner 2017).

Several studies observe relatively lower demand for insurance among women as compared to men which they attribute to differences in spheres of activity, risks faced, institutional trust, risk aversion, and financial literacy.

In Bangladesh, a choice experiment found significant insurance aversion among female farmers linked to differences in of level of trust in insurance institutions and financial literacy (Akter, 2016).

In Senegal and Burkina Faso, while men had a much stronger demand for weather insurance, women had a stronger demand for emergency savings, consistent with the conjecture that men and women face different types of risks (income vs. health) (Delavallade et al., 2015).

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