Diffusion in social networks: Experimental evidence on information sharing vs persuasion *

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Abstract

We conduct a clustered randomized controlled trial across 180 villages in Uttar Pradesh, India, to promote the take-up of a savings commitment product newly introduced to our study population. A random subset of participants was targeted through our promotional campaign to test whether the product's diffusion among untargeted participants operates primarily through information sharing or through persuasion by incentivized target participants. If social learning is the main channel of diffusion, we would expect higher sign-up and take-up rates in information villages compared to persuasion villages. Conversely, if persuasion is the primary channel, sign-up and take-up rates should be higher in persuasion villages. Our findings consistently favor the persuasion channel, as sign-up and take-up rates were higher in the persuasion treatment, even without increased financial literacy or knowledge about the product. Information alone had a negligible impact on take-up, while the combined treatment achieved the highest sign-up and conversion rates, suggesting that information complements persuasion by enhancing its effectiveness. These results highlight the importance of incentivized persuasion in promoting product take-up and suggest that, in certain contexts, direct information-sharing may be less effective than previously assumed.

JEL Codes: O16, D14, G21

Keywords: diffusion, social networks, savings, financial inclusion, information, persuasion.

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1 Introduction

It is now well established that many human behaviors spread on social networks (Jackson et al., 2017). How to properly harness this process is important because, given access to limited resources, it is not always possible to directly provide information to everyone in a large target population. By strategically targeting a subset of individuals with the appropriate intervention, governments, international aid agencies, and NGOs may find a more cost-effective way to diffuse new products and technologies.

Much of the economic literature on this topic tends to ascribe diffusion on networks to social learning, that is, to the peer-to-peer diffusion of information among individuals through contact – whether in person (e.g., BenYishay and Mobarak, 2018; Beaman et al., 2021), over the phone (e.g., Cole and Fernando, 2020; Kelley et al., 2022), by letters (Hjort et al., 2021), by SMS (e.g., Batista et al., 2022), or through social media (e.g., Alatas et al., 2019). The transfer of information from one person to another is then assumed to induce recipients to update their beliefs, subsequently leading them to reconsider their choices. This social learning process is widely believed to facilitate the adoption of not only new techniques and practices (e.g., Carter et al., 2021; Fafchamps et al., 2021), but also new products and services (e.g., Banerjee et al., 2013; Miller and Mobarak, 2015; Afzal et al., 2019; Fafchamps et al., 2022).

However, since Bernays' seminal work on advertising and propaganda in 1928 (Bernays, 2004), it has been clear that new behaviors can also spread through *persuasion*, without necessarily providing relevant or complete information about the material benefits of adoption (Cialdini, 2006). This is particularly true when those who can influence others have an incentive to do so, either because they benefit directly from others' adoption, or because they are rewarded for bringing new participants. As Kamenica and Gentzkow (2011) have shown theoretically, persuasion can take a Bayesian form whereby the persuader chooses to either disclose or hide information so as to induce a specific action from a rational Bayesian updater. More importantly, persuasion can take advantage of human weaknesses in rational thinking and belief formation. Many of these weaknesses have been documented in the behavioral literature, such as: anchoring, availability, conjunction fallacy, optimism, over-confidence, framing, and base rate neglect (Kahneman, 2011); motivated reasoning (Kunda, 1990; Lodge and Taber, 2013; Bernheim et al., 2021); and lack of perspective taking (Costa-Gomes and Crawford, 2006; Chegere et al., 2024).

Persuasion is the art of taking advantage of these biases in order to change someone's preferences or decisions. It does not necessarily need to appeal to reason, as in Kamenica and Gentzkow (2011); instead, it may rely on emotional empathy (Jia, 2023), misdirection (Bernays, 2004), appeals to self or social image (Bursztyn and Jensen, 2017), or by leveraging role models and influential individuals (e.g., Porter and Serra, 2020; Fafchamps et al., 2020; Banerjee et al., 2021). Persuasion can also involve subtle pressures, such as potential ridicule or shame directed at those who do not conform to an implied social norm of adopting (or avoiding) certain behaviors (e.g., Bursztyn et al., 2020b,a). In some cases, enforcement of conformity may extend to more intense forms of peer pressure, including ostracism, trolling, verbal abuse, or physical threats. In this paper, we do not aim to differentiate between these forms of persuasion. Instead, we investigate whether randomly selected participants can influence the behavior of other randomly selected participants without providing them with additional relevant information.

Persuasion, however, need not be coercive and can be benevolent (e.g., Esguerra et al., 2023). It can help individuals overcome barriers to adoption, such as ignorance, restrictive gender norms, or low aspirations. Even when persuasion is benevolent, however, the adoption it encourages may not always align with the adopter's best interests, particularly if accurate information about the costs and benefits of adoption is lacking.[1] This concern is particularly relevant for policymakers promoting the adoption of new products, behaviors, or technologies without fully understanding whether these changes genuinely benefit the target population (e.g., Berg et al., 2022). Such concerns grow when the diffusion process rewards individuals for persuading others to adopt, as in client referral marketing models (e.g., Berg et al., 2019). In these cases, the reward may be financial or may come in the form of social validation from the promoter or social group.

In this study, we aim to disentangle the effects of adoption driven by information diffusion from adoption driven by persuasion. To achieve this, we design a randomized controlled trial that encourages the adoption of a saving commitment product, which is new to our target population. Our goal is to promote take-up of this product over a specified period. We hypothesize that while the product may benefit many members of our target population, it may not suit everyone (e.g., Afzal et al., 2018, 2019), meaning universal adoption is not necessarily desirable. To test whether persuasion alone, without detailed information, can induce take-up, we compare the adoption of the financial product under different diffusion treatments. Some treatments provide relevant information about the product, while others incentivize participants to sign up other community members (e.g., Shikuku et al., 2019; BenYishay and Mobarak, 2019). If persuasion alone induces adoption, we assess the extent to which the adopters benefit from the product under the different treatments, exploring the implications for product adoption driven by incentivized persuasion without complete information.

Adoption driven purely by persuasion, without accurate information, may be less beneficial, as adopters may not fully consider the true costs and benefits. In such cases, the likelihood of mistakes increases, and engagement with the product is likely to decline after initial adoption. However, there are specific contexts where persuasion may be more effective in promoting beneficial adoption than information diffusion alone. One such context is when women are disempowered and, as a result, unable to advocate for the adoption of products that would benefit them. Providing women with financial autonomy—through interventions such as cash transfers (e.g., Attanasio and Lechene, 2002, 2014; Aker et al., 2016; Tommasi, 2019; Riley, 2020; Field et al., 2021) or microfinance (e.g., Ashraf et al., 2010; Dupas and Robinson, 2013b; Afzal et al., 2019; Abbink et al., 2020)—has long been recognized as a means of empowering them. Our study area was chosen specifically because such findings are likely relevant here. It is possible, even likely, that while the saving commitment product appeals to women in our study area, they may face challenges in adopting it independently. In this context, support from a female peer within the local community may help them overcome familial inertia or resistance. Given that our saving commitment product is targeted at women, we must consider the potential for the persuasion treatment to facilitate beneficial adoption by alleviating this barrier to take-up.

The experiment was conducted in rural India, where we introduced a savings commitment product with the help of a local partner organization that has no permanent base of operations in the target villages. To encourage adoption, we offered an unusually high return on early deposits (e.g., Meriggi et al., 2021). However,

[1]Throughout this paper, we abstract from considerations of externalities, where an individual's actions benefit the group but may not be beneficial to the individual—a situation that could, in some cases, justify enforced adoption but is excluded from our experimental design.

due to our partner's limited presence on the ground, awareness of this product was minimal. Our promotional campaign targeted a randomly selected subset of individuals in our study population, whom we refer to as primary participants.[2] These primary participants were assigned the role of influencer. In one treatment, they received detailed information about financial literacy and the savings commitment product, along with a list of three secondary participants they were encouraged to inform (e.g., Banerjee et al., 2013; Kondylis et al., 2017). We call this the information treatment. In a second treatment, primary participants were given no relevant information but were incentivized to get three designated secondary participants to sign up for the product (e.g., Deserrano et al., 2022). We call this second treatment the persuasion treatment, as these primary participants, without having information to share beyond the product's existence, had to rely on persuasion to earn the reward. Additionally, we implemented a combined treatment where primary participants received both the detailed information and the reward incentive for sign-ups, which closely resembles the role of social media influencers in promoting products.

Treatment assignment is randomized across villages to avoid the diffusion of relevant information to those assigned to the pure persuasion treatment. In all three treatments, the assignment of secondary participants to primary participants is achieved by partitioning these participants in a village into non-overlapping groups of four, and then randomly assigning one member of each group to be a primary participant. The random assignment of peers serves to eliminate bias due to homophily in peer self-selection (e.g., Centola, 2010, 2011) and, it has been used in a growing number of experiments (e.g., Cai and Szeidl, 2017; Fafchamps and Quinn, 2018; Fafchamps and Mo, 2018; Fafchamps et al., 2021; Corno et al., 2022; Batista et al., 2023; Caeyers and Fafchamps, 2024).

Our main objective is to compare take-up of the product across treatments using administrative data on individual take-up to which we have access. We then combine this information with endline survey data on savings, incomes, and consumption expenditures, as well as a quiz assessing financial literacy and product knowledge among primary and secondary participants. Our main control group is a randomly selected set of villages in which the product is available but no promotional campaign is conducted. We also have a set of inactive control villages where the product was not available, allowing us to measure the effect of the product's availability without promotion.

Our testing strategy can be summarized as follows. Primary participants in the information-only treatment should adopt the product if they believe, based on the extensive knowledge we provided, that adoption serves their best interest. Since primary participants are selected randomly among the population of interest, this provides a benchmark for informed adoption in our population. In contrast, in the pure persuasion treatment, primary participants are only told of the existence of the product itself. This, in principle, gives us a second benchmark for uninformed adoption. Our primary focus is on comparing adoption rates among secondary participants (those not directly targeted by our campaign) across these two benchmarks.

We find that in the information-only treatment, sign-up and take-up rates among secondary participants are negligible, even though the level of knowledge among primary and secondary participants is equivalent. This suggests that while information diffused throughout the community, it alone did not drive product take-up. In

[2]To minimize the role of network architecture in the diffusion process, we seed the network at multiple random points. Akbarpour et al. (2023) indeed shows that, for most social networks, multi-point random seeding yields as much diffusion as optimal seeding with full knowledge of the network structure.

contrast, we observe significantly higher sign-up rates in the persuasion-only treatment, with a much higher conversion rate from sign-up to take-up. We also note that, relative to the information-only treatment, there is no increase in financial literacy or knowledge about the product in the persuasion treatment, indicating that adoption was driven purely by incentivized persuasion. Lastly, the combined treatment yields the highest sign-up rates and conversion to take-up, implying that information enhanced the effectiveness of the persuasion approach. As in the information-only treatment, the knowledge diffused within the village, yet we find no evidence of a correlation between knowledge levels of primary and secondary participants—challenging the notion that primary participants used the information to better persuade others.

Before beginning the study, we were concerned that incentivizing persuasion without providing information might lead to poor adoption decisions among secondary participants. In this context, that would mean signing up for the savings commitment product without collecting the bonus interest or failing to increase savings. However, we find the opposite: secondary participants who sign up for the product in the persuasion treatment are not only more likely to receive the bonus interest (higher take-up), they also save more. Additionally, the data shows some reduction in durable expenditures, particularly in areas like women's clothing and ceremonial spending, which is consistent with a preference to save. We find no evidence of treatment effect heterogeneity by initial savings levels, household decision-making, or social desirability—contrary to expectations if uninformed adoption correlated with vulnerability. Furthermore, all treatments significantly increased both the decision-making and mobility indices for women, with a notably stronger impact on mobility in the persuasion treatments. Together, the evidence suggests that by fostering interactions between primary and secondary participants, our experimental design empowered women, leading to increased product take-up and personal savings. We find no evidence of a direct impact on women's income; if anything, there is a small positive effect on the incomes of participants' husbands associated with both information treatments, along with reduced financial and health concerns among participants.

This paper primarily contributes to the literature on how economic behaviors spread within social networks. Seminal works highlighting the importance of information diffusion include, among others, Foster and Rosenzweig (1995), Bandiera and Rasul (2006), Conley and Udry (2010), Duflo et al. (2011) and Oster and Thornton (2012). Those highlighting the diffusion of adoption include, among others, Banerjee (1992), Centola (2010) and Cai et al. (2015). Our main contribution lies in disentangling the roles of social learning and persuasion in the adoption process, with findings suggesting that in our study's context, persuasion is a stronger driver of adoption than information alone.

We also add to the literature on financial inclusion, an essential factor for promoting economic growth. Despite recent increases in formal financial account ownership, a majority of adults in developing countries—especially women—do not regularly use these accounts. According to the 2021 Global Findex Database (Demirguc-Kunt et al., 2022), adults and women residing in the poorest 40% of households are less likely to save formally. Several papers show that reducing the monetary and non-monetary costs associated with savings does not translate into regular use of formal bank accounts in most cases (e.g., Dupas and Robinson, 2013a; Prina, 2015; Dupas et al., 2017, 2018). Effective incentives for account use and formal savings include offering ATM cards, door-to-door collection (e.g., Nava et al., 2006; Schaner, 2016; Callen et al., 2019); mobile-linked digital accounts (e.g., Batista and Vicente, 2020; De Mel et al., 2020); and providing a higher,

above market-level interest rate (e.g., Schaner, 2015, 2018; Karlan and Zinman, 2018). By using a commitment savings device that offers a higher return upon meeting a savings goal, we contribute to this literature by examining the distinct roles of social learning, persuasion, and their combination in promoting formal savings in rural communities.

The outcomes of this paper have significant policy implications. Evidence suggests that transferring funds to women's accounts increases their control over financial resources and enhances economic empowerment (e.g., Attanasio and Lechene, 2002, 2014; Aker et al., 2016; Tommasi, 2019; Abbink et al., 2020; Riley, 2020; Field et al., 2021). Moreover, commitment devices in savings accounts empower women in household decision-making (e.g., Ashraf et al., 2010; Dupas and Robinson, 2013b). Our findings suggest that group mobilization, as a policy tool, can foster coordinated decisions to adopt formal financial tools, advancing gender equality. Since information alone has minimal impact, policymakers should move beyond simply distributing accurate information, whether through media, IT, or social networks. Adjusting policy interventions based on these findings can directly benefit poor and marginalized households in India and in similar contexts globally, even in developed countries with significant social imbalances. Our study also provides governments and agencies with rigorous evidence on the role of persuasion in promoting financial inclusion, a first in this research area.

This paper is organized as follows. The experimental design is presented in Section 2. Implementation details regarding the timeline and the sample selection are provided in Section 3. The conceptual framework and testing strategy are discussed in Section 4. Empirical results on sign-up and take-up are presented in Section 5 while Section 6 discusses ancillary results on incomes, expenditures, and women's welfare. Mechanisms are discussed in Section 7 in which we refine the interpretation given to our findings. Section 8 concludes. The Online Appendix contains discussions about the limitations and challenges of the study, as well as detailed information about project implementation.

2 Experimental Design

Our experiment comprises a sample of women living in rural Uttar Pradesh, India. We introduce a subsidized commitment savings product called "Save & Gain" (S&G). Our local partner offers this saving instrument to eligible women. The experiment is to see how we can foster the adoption of this product.

The sample is selected as follows. First, in each village v selected for the project, a relevant target population of size N_v is identified as potentially interested in the new saving instruments, with $N_v = 30$ to 40 households. Second, in all treatment villages, this population is then randomly divided into two groups: primary participants (A) and secondary participants (B) with $A + B = N_v$. All participants answer a baseline and an endline survey, but only primary participants receive the information or persuasion interventions described below. Third, in each selected household, we survey one woman who satisfies the following selection criteria: aged between 18 and 50; already has a bank account; and agrees to show us her passbooks at endline.

To identify treatment effects, villages are randomized into five treatment groups, including one pure control group. These groups differ in the type of intervention they receive and which households receive them. The logic behind the experimental design was already explained in the introduction, but important details will

become apparent below when we discuss the hypotheses it is designed to test.

2.1 Save & Gain (S&G)

Our subsidized commitment savings product works in the following way (see Figure C1 in Appendix C for a representative poster of our financial product). For each tranche of 100₹ (up to 500₹) that is kept on the account for three months, we pay a bonus interest of 20₹ (20% interest rate), and we do this once for the largest amount saved for three months over a predetermined window of six months.

- Example 1: a participant deposits 100₹ on day one of month one, another 200 on day one of month two, and withdraws the lot on day one of month five; so, three months later. In this case, she receives an interest payment of 3 x 20 = 60₹ at the end of the eligible period.

- Example 2: a participant deposits 100₹ on day one of month one, another 500₹ on day one of month two, and withdraws the lot on day one of month five; so, four and three months later, respectively. In this case, she receives 5 x 20 = 100₹ (the amount of eligible savings is capped at 500; so, in this case, even though she saved 600₹, we only pay an interest on 500₹).

- Example 3: a participant deposits 100₹ on day one of month four and withdraws the lot on day one of month seven; so, three months later. In this case, she receives 1 x 20 = 20₹ (the first day of month four is 90 days away from the first day of month seven, which is the last day available of the six-month window, so she is still eligible).

- Example 4: a participant deposits 100₹ on day one of month five and withdraws the lot on day one of month eight; so three months later. In this case, she receives 0 x 20 = 0₹ (the first day of month eight is outside the six-month window).

The interests in S&G are paid back in the following way. Six months after the beginning of the experiment, we made two two-day visits to each village, two weeks apart. We took note of the passbooks and other evidence on the first day of each two-day visit. We return on the second day of the two-day visit to pay the bonus interest.

2.2 Treatment Groups

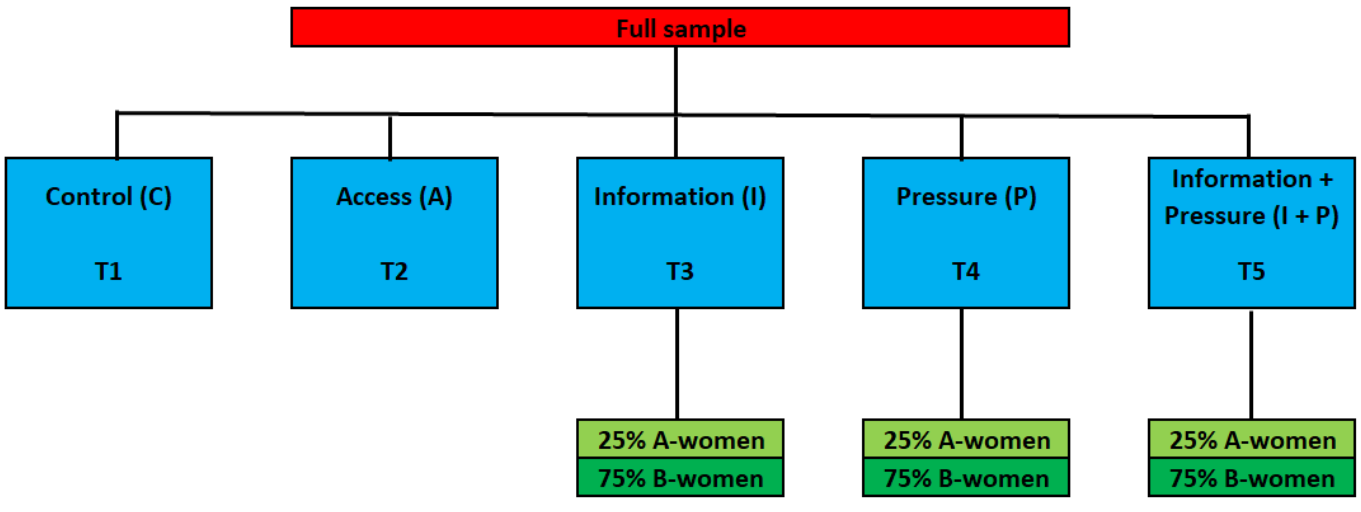
180 Villages are allocated equally to one of five groups, as summarized in Figure 1.

T1: This is the pure (inactive) control group. S&G is not offered in the village and no information is disseminated about it.

T2: This is the pure access treatment group. Participants in these villages receive no information or persuasion treatment, but S&G is available to all participants if they ask for it.

T3: This is the information sharing treatment group (see Figure C2 in Appendix C for a representative poster summarizing the information treatment). S&G is available to all participants if they ask for it

Figure 1: Experimental design



but the information about S&G is only given directly to the randomly selected primary participants. Specifically, in T3 villages, we have a team of marketer-enumerators who visit each primary participant at their home and spend 30 minutes or more explaining how formal saving compares with existing traditional modes of saving, how S&G works, giving examples, explaining sign-up, and promoting the (expected) benefits of the product. Each primary participant is then given the names of three secondary participants with whom she is encouraged to share the information she received. These secondary participants in T3 villages appear on a list held by the stall enumerators and can approach the stall to sign up and have their name ticked off a list. All village participants can sign up on their own if they wish to do so (e.g., if information circulates widely).

T4: This is the persuasion treatment group (see Figure C3 in Appendix C for a representative poster summarizing the persuasion treatment). The group of primary participants is incentivized to induce secondary participants to adopt the new saving scheme. Only succinct general information about the new saving scheme is provided to primary participants. Specifically, in T4 villages, we have a team of enumerators who visit primary participants in their homes and spend five minutes explaining that if they bring one of three listed secondary participants to sign up for S&G, they will receive a reward worth 50₹. The recommender has to be present at the sign-up of the recommendee to get the reward. If the person they bring is not qualified (e.g., has not deposited at least 100₹ in the last month), the recommender gets no reward. The recommender is not obliged to sign up. Secondary participants can also sign up on their own (i.e., unaccompanied). In this case, no reward for their signing up is made since there is no evidence that signing up resulted from the effort of the primary participant.

T5: This is the information sharing + persuasion treatment. In these villages, primary participants receive the information treatment as in T3, plus the persuasion incentive as in T4. Specifically, we have a team of marketer-enumerators who visit primary participants at their homes, spend 30 minutes or more explaining S&G and the importance of formal savings, as above, and an extra five minutes explaining the reward scheme. The rest is similar to the T4 group treatment described above.

2.3 Randomization

Our experiment is a clustered RCT with treatments randomized at the village level and interventions randomized at the participant level within villages. Randomization is carried out at three levels. First, at the village level, we assign one-fifth of the sample (36 villages, about 1,185 women) to the pure control treatment T1, one-fifth to the access treatment T2, one-fifth to the pure information treatment T3, one-fifth to the pure persuasion treatment T4, and one-fifth to the information + persuasion treatment T5. Second, for treatment villages T3, T4 and T5, we randomly divide eligible women in each village into the primary and secondary participants. More precisely, once we have our sample of $N_j = A + B$ participants, for each village j, we randomly assign one-quarter of them to be primary participants and three-quarters to be secondary participants. Both randomizations are done after the baseline survey to ensure that the enumerators do not already know the identity of the primary participant at the time of the baseline survey. Third, in T3, T4 and T5, we randomly partition secondary participants in each villages into non-overlapping groups of three, and we randomly assign each of these groups to one primary participants. Since primary participants form one quarter of the sample and secondary participants three quarters, this design ensures that each secondary participant is indirectly treated through the primary participant.

The randomization of villages follows a simple stratification rule based on the three variables that are the best predictors of future formal savings, based on R^2 in our pilot: 1) formal savings in the past six months; 2) distance to the nearest bank in minutes; and 3) population size in the village. We calculate the average of these variables at the village level. Based on sample size, we then calculate the maximum number of strata that our dataset can support. In our case, each stratum must contain at least 5 x 2 = 10 randomization units (Imbens, 2011). In order to satisfy this requirement, our dataset can support at most 12 strata, each composed of at least 10 villages. To achieve this, we consider three levels of village formal savings (low, medium, and high), two average levels of distance (above or below the sample median), and two average levels of population size (above or below the sample median). We generated 10,000 different allocations of treatment groups, and after conducting extensive balancing tests, we chose the best allocation in terms of balancedness.

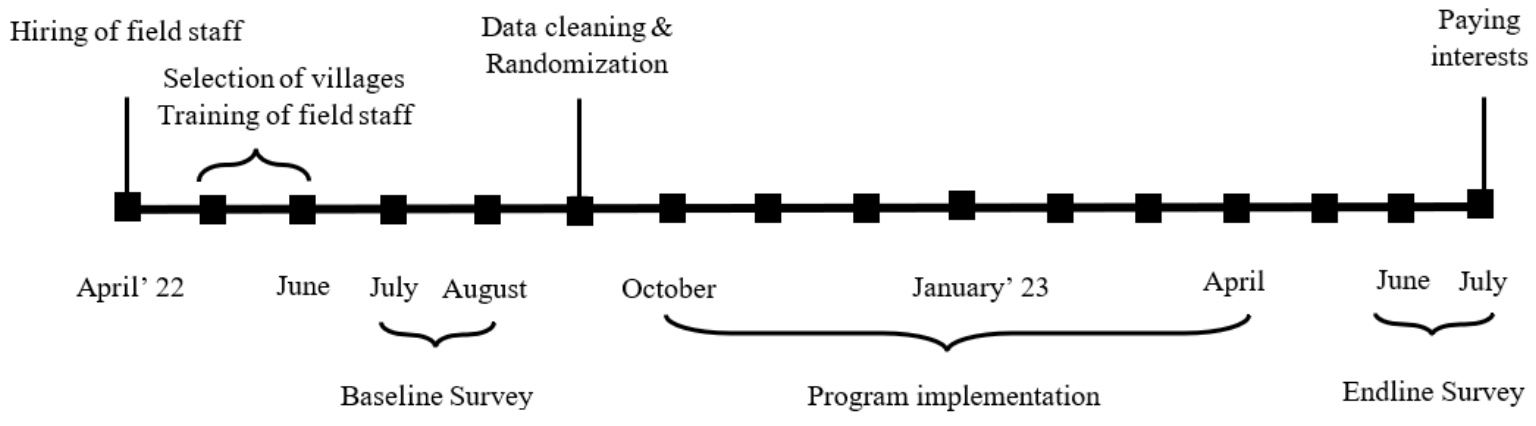
3 Data collection

3.1 Implementation

The data collection for this project was completed over approximately 15 months, with the workload divided into three stages. Figure 2 summarizes the project timeline.

The first stage, from April to September 2022, was dedicated to hiring and training trainers and enumerators, completing the baseline survey, and randomizing treatments across selected villages and interventions across eligible women. The second stage, from October 2022 to April 2023, involved implementing the experiment in the field. During this time, no survey data was collected, but administrative data on sign-ups was gathered by our S&G partner. The third stage, from May to July 2023, focused on collecting the endline survey and paying back the bonus interest to S&G. Figure 3 provides a map of the areas included in the study for the five sets of treatment and control villages.

Figure 2: Timeline of the project (2022-23)



3.2 Sample and Outcomes

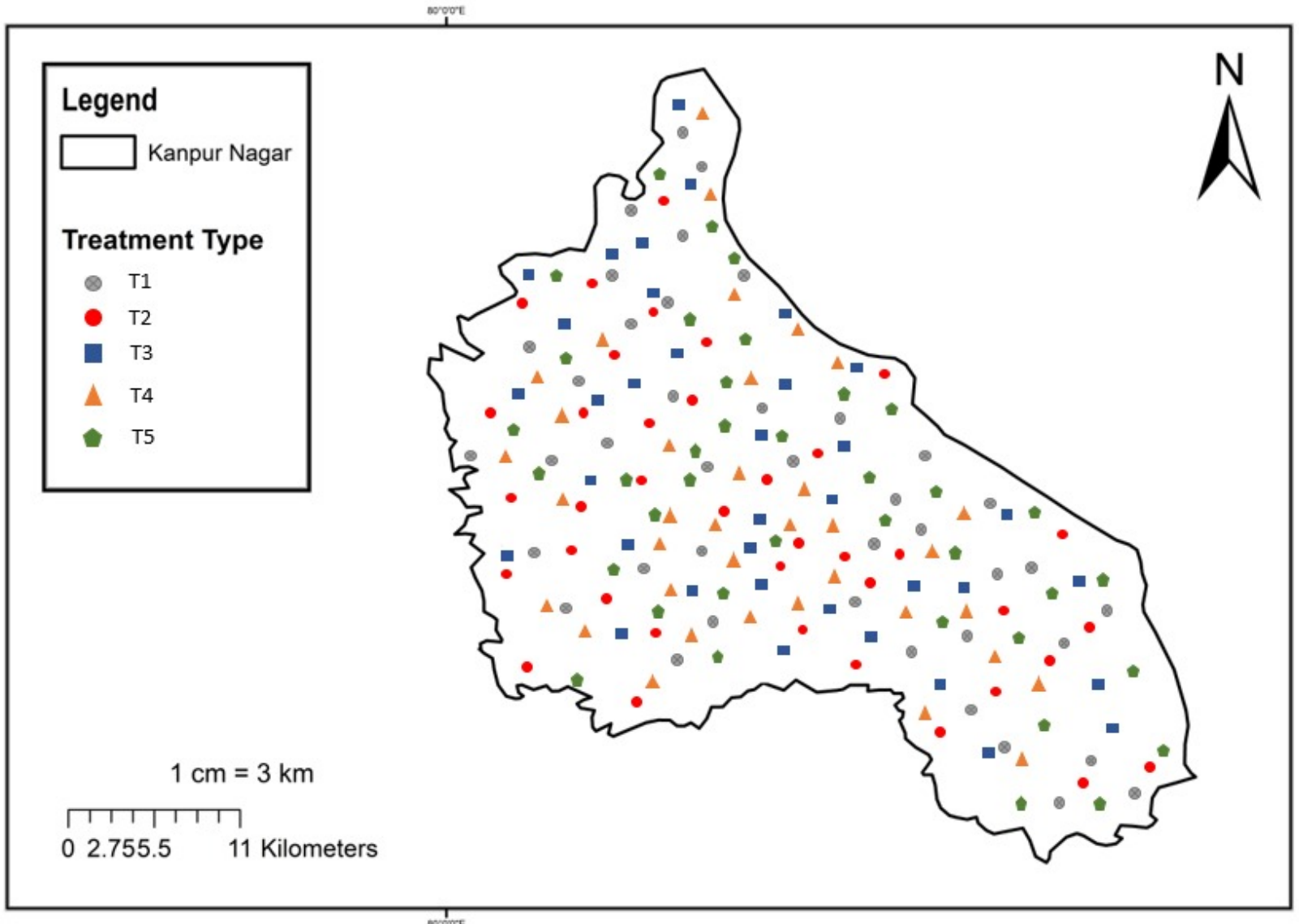
To address our research questions, we collected three types of data: administrative data from S&G about sign-up; administrative data from the passbooks of the participants; and survey data from participants. Administratively collected sign-up information was provided by S&G for all participants to the study, whether in control or treatment villages. This information was then merged with the survey data using the name of the participants. Given that sign-up requires a deposit of 100₹, we regard it as an incentivized measure of willingness to pay to engage with the bonus interest deposit program. It is our first measure of the main direct effect of the different treatments. For treatments T4 and T5, the administrative data obtained from S&G also includes information about the presence of the primary participant at sign-up, so as to determine their reward. We collected one baseline survey and one endline survey of all primary and secondary participants in all villages of the study. The six months interval between the baseline and the endline survey was selected to allow enough time for information diffusion and peer effects to operate after the interventions. Interviews were held at the home of the participating women on a one-on-one basis and were conducted by female and male enumerators trained by our local partner. Enumerators are Indian from Uttar Pradesh and are fluent in the Hindi language.

During the endline survey, enumerators collected three key variables directly from participants' passbooks.[3] Since the passbooks are formal documents produced by S&G to document deposits and withdrawals, they represent reliable administrative sources of information on participants' engagement with our intervention.[4] The three variables follow savings behavior over course of the study. The first is the largest deposit amount kept by participants on their S&G accounts for at least three months during the project's intervention. This amount is what determines the payment of the bonus interest, and is thus our main measure of the intensity of compliance with the treatment. The second variable is the total amounts that participants deposited in their S&G accounts during the six months of the intervention, regardless of how long the deposits remained on the account. Withdrawals are not subtracted from this number, which means that this variable captures the intensity of usage of the S&G savings account during our intervention. Given that the intervention aimed at

[3] Data collection was done in accordance with a strict enumerator protocol to ensure accuracy.

[4] A passbook is a book in which the bank/financial institutions record the deposits and withdrawals made by a customer. In this book, the bank records each deposit made, each withdrawal, and the current balance, in a sequential manner. So, for instance, if there were a deposit made on January 1, it would be recorded. Then, if the next deposit were on February 11, that would appear as a second entry.

Figure 3: Villages in Uttar Pradesh included in the sample



fostering saving, it is our measure of engagement with S&G savings. The third variable is the total balance shown on the participants S&G passbook at endline, including deposits made before (and occasionally after) the six months time window of the project's intervention. When compared across treatment and control participants, this variable measures the total savings accumulated by respondents and thus allows us to measure the impact of the different treatments on saving accumulation itself. Together with sign-up, these three variables capture the direct effects of treatment on participants' savings behavior.

The baseline and endline surveys include 12 modules covering: 1) location, identification, and household information; 2) wife and husband information; 3) assets; 4) wife income in rupees (last month); 5) household income in rupees (last month); 6) expenditure; 7) saving and borrowing behavior; 8) self-reported decision-making; 9) general health; 10) life satisfaction; 11) social desirability bias; and 12) risk-taking. Of these variables, we pre-selected a number of questions that are used to quantify key ancillary outcomes. The main outcome variables collected at baseline and endline are:

1. Individual and household income, assets, indebtedness, and expenditure. We have various standard questions about earnings, assets, and indebtedness. Regarding expenditure, we have a set of questions related to spending over the last week, one month, and six months to capture durable, semi-durable, and non-durable goods.

2. Subjective happiness/life satisfaction and sense of financial security. We have various questions related to self-reported decision-making, awareness, and mobility statements describing their financial situation or how worried they are about different aspects of their family. We also collect information on mental health indicators.

At endline we also collected information on:

1. Knowledge of S&G savings product and savings in general. This was administered in the form of a quiz.

2. Women's empowerment indicators, such as involvement in household finances, executive and consultative agency regarding consumption choices, and locus of control.

In Table D1 of Appendix D, we report the summary statistics of variables of interest collected at baseline.[5] We see that the average age of the female participants is 30, and 79% can read and write. They have been married for nine years on average, and their household comprises five individuals. Their husband is four years older on average and has a similar level of education. In terms of economic status, most participants report being housewives (82%), although some earn an income. The vast majority own their house (96%) and most own a farm (64%). On a scale of zero to 10, their risk attitude is below five, which imply that they are risk averse.

In terms of outcome variables of interest, we note that, at baseline, almost all participants have visited a bank before (92%) and report having some formal savings that is larger than their self-reported informal savings. They have also borrowed money both from formal institutions and from money lenders in the past. They report depositing their money in the bank relatively infrequently: 54% of them make bank deposits only once every few months.

3.3 Balance and power calculations

Results for a large number of baseline variables are presented in Tables D4-D5 of Appendix D. Balance is presented in terms of normalized differences between groups. Since participants are also randomized into primary and secondary, we also conduct a balancedness analysis between these two groups. Results for the same set of variables are presented in Tables D6-D7 of Appendix D. Almost all the normalized differences are below 0.25, the level recommended by Imbens and Rubin (2015). Furthermore, power calculations conducted before the experiment indicate that we have enough power to detect treatment effects of 0.15 standard deviation units. This number is smaller than the smallest effect size estimated in our pilot, which was carried out at the beginning of 2021 (see Appendix E).

3.4 Attrition

During the intervention, 316 participants (5.3%) dropped out of the sample – 298 among secondary participants (6.6%) and 18 primary participants (1.3%). In Appendix F, we present a detailed comparison of the

[5]Whereas, in Table D2 and D3 of Appendix D, we report the same summary statistics separate for primary and secondary participants, respectively.

baseline characteristics of those who remained in the study versus those who dropped out. We do so separately for the full sample (Appendix Table F8), secondary participants (Appendix Table F9), and primary participants (Appendix Table F10), respectively. The attrition analysis includes all variables included in the baseline summary statistics Table D1 of Appendix D. We observe only minor discrepancies in most variables between the two groups, both in terms of magnitude and statistical significance. Small differences in dropout rates across treatment groups are also observed. These discrepancies are largely confined to the small subset of primary participants who dropped out. Overall, the findings suggest that attrition in our study is largely random and unlikely to introduce bias.

4 Conceptual Framework

We begin by presenting a model that outlines the conceptual framework for our experiment. This model, which serves as a foundation for our testing strategy, aims to understand how social learning and persuasion influence rural women's adoption of a savings commitment product. . We then discuss its implications in terms of the specific approach used in our empirical analysis.

4.1 A model of persuasion

We model the relationship between primary and secondary participants as a principal-agent problem in which the principal is tasked with persuading the agent to take an action a.

4.1.1 The agent

We are interested in situations in which an individual agent must decide whether to take action a or not – e.g., to take-up a savings product. The reservation utility $\widetilde{R}$ of not taking action a is known to the agent but not the principal.

The utility of action a is only partially known to the agent. We divide the utility of the agent into four components, depending on the nature of their uncertainty. The first component v denotes the expected utility that the agent can predict based on the visible characteristics of action a at the time of taking the decision. The second component x is the utility that the agent derives from material characteristics of a that will only be learned by the agent after taking action a. This dimension of utility is, by definition, not known at the time of taking action a but the agent is aware that it will be known afterwards. These two components of utility are standard in economic theory and are covered by a large literature on decision making under uncertainty.

To these two standard components of utility, we add two more. The first is the utility h derived from hidden characteristics of a that are never directly revealed to the agent – although the agent forms beliefs about these characteristics and these beliefs affect her utility (Dulleck et al., 2011). A typical example is health care services: after a visit to a doctor, the patient does not know for sure whether the recommended cure contributes to her healing; but she derives utility from believing that it does – e.g., in the form of relief, hope, pride in her own competence, and sense of agency over her own fate. These issues have been extensively studied in the health care literature (e.g., Das and Hammer, 2005, 2007; Das et al., 2008; Cohen et al., 2015; Sylvia et

al., 2014; Björkman Nyqvist et al., 2021) but they also apply to goods and personal services.[6] In the case of financial products, hidden characteristics include hidden fees and commissions, compound interest charges, and withdrawal restrictions but also, more generally, a lack of clarity about the true benefit of a saving product for a poor population with income and financial needs that vary over time.

Since the agent's beliefs about h cannot, by definition, be based on direct experience or evidence, they must rely on blind trust. This absence of evidential basis makes beliefs about h particularly susceptible to motivated reasoning: e.g., if a parent wants to save the life of her child, she will want to believe the promises made by quack doctors. Hence the agent is vulnerable to misinformation about the hidden characteristics of a – especially if they are costly to produce. The existence of hidden but valuable characteristics therefore opens the door to persuasion by a trusted person who claims (rightly or wrongly) to have some knowledge about h. This person does not have to be be the seller of the product, it can be an independent observer (e.g., consumer association, government agency) or someone who is rewarded for convincing the agent to take action a (e.g., advertizer, influencer, advocate, lobbyist). In addition to outright misrepresentation and misdirection, manipulation of beliefs can be achieved by taking advantage of the many biases that plague decision under uncertainty – such as motivated reasoning or base rate neglect – or strategic reasoning – such as cognitive dissonance and lack of perspective taking.

The last component of utility that we consider is the subjective satisfaction that the agent derives from action a. Economists typically assume that utility depends on the characteristics of a, not on the agent's state of mind. We depart from this assumption and allow for the possibility that the level of mental satisfaction that the agent derives from a depends on social and psychological factors that are extraneous to the product a itself. These factors are revealed to the agent over time, but remains unobservable by others. They include: self-image considerations; social identity and social image; relative rank considerations; and mimicry and conformism. These factors share a common property that is central to our purpose, namely, their malleability to external influences. In particular, narratives can change people's perceptions of an action or product, making them a powerful tool for persuasion (e.g., Shiller, 2019; Sharpe et al., 2023). Bernays (1928) was the first to fully realize the potential of propaganda to change a person's preferences and behavior by addressing messages directly to their 'subconscious self' (Bernays, 2004). Much advertizing is about creating an aura of self-image or social image around a specific consumption pattern, with the objective of changing the level of satisfaction that the agent not only *expects* to experience from a, but also *actually* derives from it. Because humans are social animals, this process of preference manipulation is largely a social one, with conformism, prestige, and emulation playing a role in the satisfaction individuals derive from adopting (or not adopting) a. This opens opportunities for people to influence the preferences of others, either to pursue their material self-interest, or to derive subjective satisfaction from the process of influence itself. These considerations form the basis for our experimental design.

Based on these assumptions, without external intervention the agent takes action a if:

$$E[U(a)] = v + E[\widetilde{x} + \widetilde{h} + \widetilde{s} | v, c] - c \geq \widetilde{R} \tag{1}$$

[6] There may exist institutions that certify doctors, lawyers, architect, etc, which reduces uncertainty about their qualifications. There can also be institutions that monitor service providers in terms of effort or fraudulent behavior, and are able to identify some cases of abuse. These institutions reduce uncertainty to some extent but never fully eliminate it. They are ignored here, as they do not affect the context of our study.

where c is the utility cost of action a that the agent must incur an up front. Components v, x, h, and s are agent-specific and can be positive or negative. Expectations over $\widetilde{x}, \widetilde{h}$ and $\widetilde{s}$ are taken conditional on observables v and c, and on various factual and non-factual information about a that the agent may have. Equation (1) implies that, in order for the agent to make a decision, she must form beliefs about $\widetilde{x}+\widetilde{h}+\widetilde{s}$. These beliefs vary across agents and need not be centered on their true values. Beliefs for x are easier to discipline from previous market interactions, and the agent may be protected from low values of realized x through warranty or insurance. But insurance cannot be provided for h or for s since h, by definition, is never verifiable by the agent while s is by definition not verifiable by others. In our experimental setting, v represents observable characteristics of the product known before adoption (e.g., initial deposit amount), x are characteristics observable only after adoption (e.g., actual interest earned), h are hidden characteristics not directly observable by the agent (e.g., potential risks or benefits unknown to the agent), s is the ex-post satisfaction derived from adoption (such as the feeling of increased financial security and the sense of empowerment), and c is the cost of adopting the product (e.g.,time and effort).

4.1.2 The principal

We now introduce a *principal* (the primary participant) who derives a benefit if the agent (the secondary participant) adopts action a. This benefit can come from two sources: an *intrinsic motivation* to help $\alpha \geq 0$ and an *explicit monetary incentive* $\tau \geq 0$. The principal seeks to persuade the agent to adopt by sending a message $\widehat{\theta} \equiv \hat{x}+\hat{h}+\hat{s}$ to the agent to influence her beliefs about x, h, and s. The more persuasive the message is, the more the agent shifts her belief about x, h,and s towards $\hat{x}, \hat{h}$, and $\hat{s}$. This can be represented as:

$$E[\widetilde{x}+\widetilde{h}+\widetilde{s}|v,c,\widehat{\theta}] = \lambda\widehat{\theta}(e)+(1-\lambda)E[\widetilde{x}+\widetilde{h}+\widetilde{s}|v,c] \quad (2)$$

where parameter $\lambda \in [0,1]$ represents the process by which the agent updates her beliefs, e is the persuasion effort incurred by the principal, and the persuasion function $\hat{\theta}(.)$ is increasing and concave in e – i.e., persuasion has decreasing returns to effort. Equation (2) allows for Bayesian updating in which $E[\widetilde{x}+\widetilde{h}+\widetilde{s}|v,c]$ is the mean of the sample observed by the agent, $\widehat{\theta}(e)$ is the mean of the sample observed by the principal, and the Bayesian posterior belief of the informed agent is the weighted average of the two sample means using as λ the relative size of the sample observed by the principal and as $1-\lambda$ the relative size of the sample observed by the agent. In case there is overlap between the two samples, λ is the relative size of the non-overlapping sample observed by the principal. In practice, the agent need not know the size of the sample observed by the principal, in which case $\lambda\widehat{\theta}(e)$ is the weight that the agent ascribes to the information reported by the principal, i.e., the principal's *influence*. This influence typically depends on the principal's persuasion skill and effort, which we capture by making $\widehat{\theta}(e)$ a function of the principal's effort.

We allow the effort cost of persuasion to depend on whether the principal is informed of the true vector $\{x,h,s\}$ or not. If the principal is uninformed, she must construct a persuasive argument in favor of adoption without having an evidential basis to back it up. We expect that this is cognitively more costly than simply relaying information provided by a reliable outside source. To capture these ideas, we let the cost of producing a persuasive message be given by function $C(e|F)$ where $F=1$ if the principal is informed of the characteristics of a, and 0 otherwise, and we assume that $C(.)$ is increasing and convex in e, and that $C(e|F=0)$ is everywhere

weakly above $C(e|F=1)$ – i.e., persuasion is more costly when the principal is uninformed.

With these assumptions, we can write the objective function of the principal as:

$$\max_{\{e\}} \quad (\alpha+\tau)Pr(a|e) - C(e|F), \text{ where}$$
$$Pr(a|e) = Pr\left(v + \lambda\widehat{\theta}(e) + (1-\lambda)E[\widetilde{x}+\widetilde{h}+\widetilde{s}|v,c] - c \geq \widetilde{R}\right)$$

where the probability function $Pr(.)$ is defined over the distribution of $\widetilde{R}$ in the population. The first order condition for this maximization problem has the form:

$$(\alpha+\tau)\frac{\partial Pr(a|e)}{\partial e} = \frac{\partial C(e|F)}{\partial e} \tag{3}$$

The solution to equation (3) yields the principal's optimal persuasion effort e^*. Given that $C(e|F=0)$ is everywhere weakly above $C(e|F=1)$, the optimal persuasion effort e^* is weakly higher when the $F=0$. Furthermore, persuasion effort is increasing in α (the intrinsic motivation of the principal) and τ (the reward offered to the principal for inducing action a). It follows that the persuasion effort of the principal – and thus the probability of the agent taking action a – are predicted to increase with both information F and the reward τ, but which effect is strongest is a priori unclear. In Appendix Section G we formally derive the comparative statics of our model.

4.1.3 Model predictions

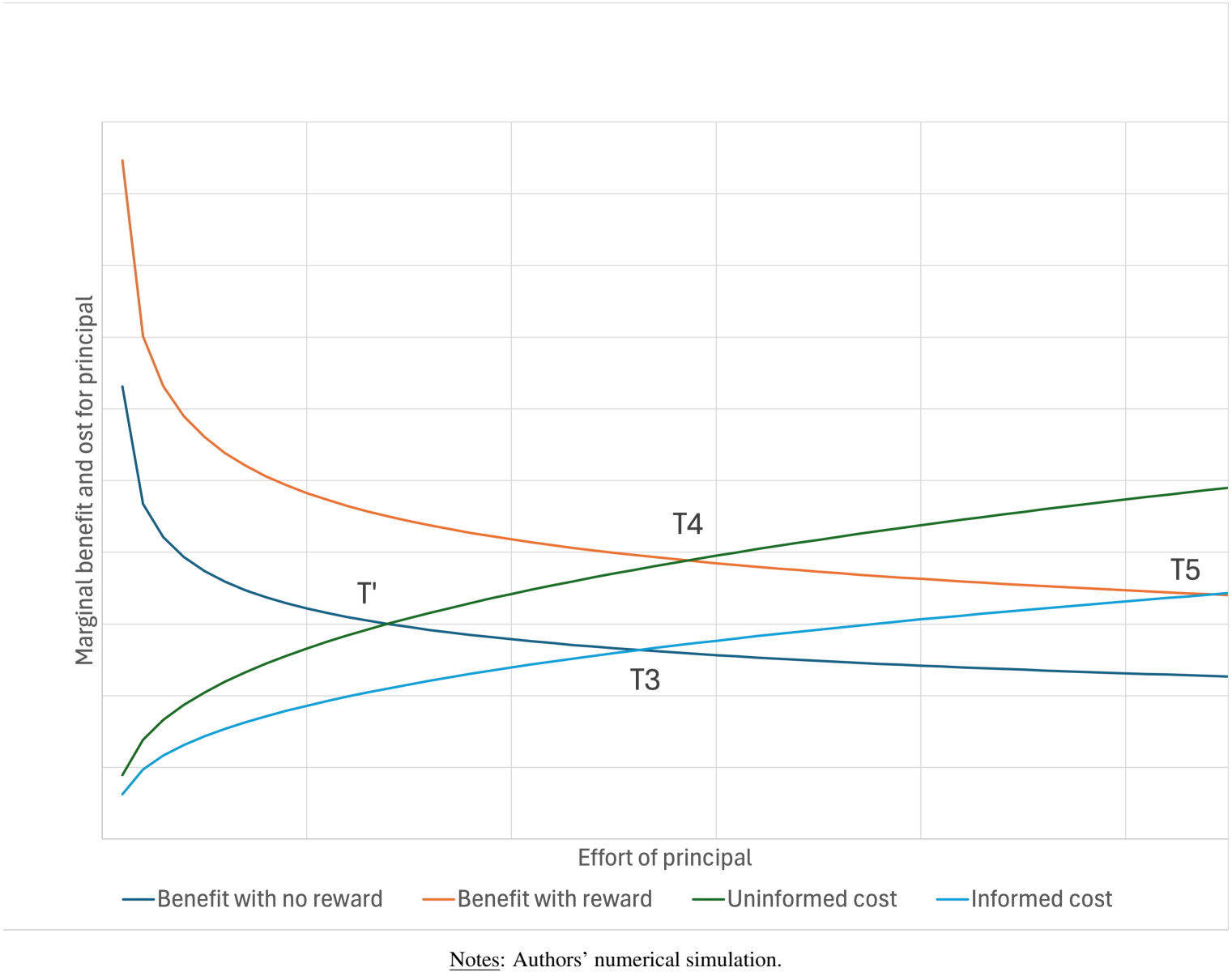
We illustrate model predictions with a graphical example in Figure 4. In this Figure, we show the benefit and cost that the principal must balance in the different treatments. The two declining curves show the marginal benefit to the principal $(\alpha+\tau)Pr(a|e)$ under two conditions: with no reward (as in treatment T3), and with a reward (as in treatments T4 and T5). The two increasing curves show the marginal cost of persuasion effort under two conditions: when the principal has not been informed about the product; and when she has been informed. The Figure shows equilibrium effort levels for treatments T3, T4, and T5. Since adoption is monotonically increasing in effort, this immediately translates into predictions about sign-up and take-up.

We see that, as anticipated, take-up is predicted to be highest in T5, which combines both interventions. The relative ranking of T3 and T4, however, depends on the choice of simulation parameters. If, for instance, informing principals does not help them persuade agents, T3 would shift to a point like T', with much lower average take-up, while T4 would remain unchanged. Similarly, if the reward had no effect on effort, it is T4 that would shirt to T' while T3 would remain unchanged. The difference in take-up between T3 and T4 therefore reveals whether, in our experiment, the persuasion effort of the principal is boosted most by information or the reward treatment.

These theoretical insights translate into three distinct causal mechanisms about individual adoption of the savings product by secondary participants:

Mechanism M1: A secondary participant is given information about a newly available product by a peer. This information changes her beliefs about the material costs and benefits of adoption. If the expected

Figure 4: Simulation of equilibrium effort by treatment



Notes: Authors' numerical simulation.

utility of adoption is positive, she adopts and engages with the product by making more deposits on her savings account and keeping a higher average balance over the duration of our intervention (i.e., the time window over which the bonus can be earned).

Mechanism M2a: A secondary participant is persuaded by a peer who argues that take-up is the best course of action, e.g., because of self or social image concerns. If the secondary participant is persuaded, she adopts and subsequently learn the material costs and benefits of adoption. Some of the adopters realize their expected utility from engaging with the product is negative, they do not continue making savings deposits, and as a result hold a low average savings balance.

Mechanism M2b: A secondary participant has limited agency and a (pent-up) desire for more autonomy. She is subjected to the persuasion of a peer who offers moral support and argues that take-up is the best course of action for self-empowerment. If the secondary participant is persuaded, she adopts and engages with the product by keeping a higher average balance over the duration of our intervention.

Mechanism M3: A secondary participant is given information about a newly available product by a peer who argues that take-up is the best course of action and offers moral support. This combination of information and support changes the secondary participant's beliefs about the material and subjective

costs and benefits of adoption. If the expected utility of adoption is positive, she adopts and engages with the product by keeping a higher average balance over the duration of our intervention.

4.1.4 Hypotheses

We test two types of analysis of hypotheses: reduced-form treatment effects; and mechanisms. In the first analysis, we estimate the effect of the different treatments on: knowledge of the savings product; take-up of the savings product; and household welfare. In the second, we seek to throw light on the mechanism behind the reduced-form treatment effects. Take-up is a dummy variable equal to 1 if the participants signs up for the savings commitment contract, and knowledge of the product is an index constructed as the sum of correct answers to a quiz about the savings product.

The first type of analysis is as follows. Regarding knowledge and take-up, our three main hypotheses are as follows:

H1: Knowledge and take-up of the savings product arise from the diffusion of information about the product and its anticipated benefits, i.e., from T3 and T5.

H2: Take-up of the savings product arises purely from the persuasion of peers, i.e., from T4 and T5, without increase in knowledge about the savings product.

H3: Take-up is highest if both mechanisms are at play, i.e., information diffusion and persuasion from peers, i.e., in T5.

These three hypotheses are tested by regressing knowledge and take-up on the three treatment dummmies and testing differences in coefficients within regressions. As measure of knowledge, we use the number of correct responses to the knowledge quiz.

Regarding economic outcomes, our primary outcome is engagement with the product as measured by the saving balances at the end of the intervention. Our main hypothesis is as follows:

H4: If informed participants are less likely to sign up for the product when it does not suit them, informed sign-up of the savings product increases subsequent engagement with the product, as measured by take-up of the bonus interest product. This can be tested by comparing the conversion rate from sign-up to take-up in T4 vs T3.

We also have a number of important ancillary outcomes, with the following associated hypotheses:

H5: Informed take-up ($T3$ and $T5$) of the savings product increases investment in lumpy expenditures, measured as expenditures on durables and livestock. Uninformed take-up ($T4$) has an ambiguous effect a priori.

H6: Informed take-up ($T3$ and $T5$) of the savings product increases household income. Uninformed take-up ($T4$) has an ambiguous effect a priori.

H7: Take-up of the savings product resulting from persuasion ($T4$ and $T5$) raises women's empowerment, measured as women's income, index of decision autonomy, index of mobility, and answers to questions about their sense of financial security and mental health.

The second type of analysis is as follows:

H8: In information treatments, T3 and T5, knowledge of the savings product is correlated between the primary participant and the three secondary participants assigned to her.

H9: In all treatments, including T4, the take-up of the savings product is correlated between the primary participant and the three secondary participants assigned to her.

4.2 Empirical specification

This section details our estimation strategy and relates estimated parameters to hypotheses H1 to H7. The main equation that we estimate is the following ITT ANCOVA specification:[7]

$$y_{iv} = \beta_1 + \beta_2 T2_{iv} + \beta_3 T3_{iv} + \beta_4 T4_{iv} + \beta_5 T5_{iv} + \gamma \bar{y}_{iv} + \delta_s + \varepsilon_{iv} \tag{4}$$

where for participant i, in village v, y_{iv} is a vector of outcome variables, which includes knowledge of the product, take-up of the product, and the economic outcomes listed in H4 to H7. The $T1, \ldots, T5$ variables are dummies for assignment to the four different treatments, keeping the pure control group T1 as the omitted category. $T2_{iv}$ is equal to 1 if the participant is in the T2 treatment group (the pure access treatment group, A) and 0 otherwise. $T3_{iv}$ is equal to 1 if the participant is in the T3 treatment group (the information treatment group, I) and 0 otherwise. $T4_{iv}$ is equal to 1 if the participant is in the T4 treatment group (the persuasion treatment group, P) and 0 otherwise. $T5_{iv}$ is equal to 1 if the participant is in the T5 treatment group (the information + persuasion treatment group, I+P) and 0 otherwise.

ANCOVA is preferred over a First Difference estimator or a Difference-in-Difference estimator when the autocorrelation of the outcome variable is low (McKenzie, 2012), making it particularly suited in our context. Controls therefore include $\bar{y}_{iv}$, the mean of the pre-treatment outcome for participant i. For information only collected at endline, such as the S&G knowledge quiz and women's empowerment indicators, the $\bar{y}_{iv}$ regressor is omitted. Take-up is null at baseline by construction, which means that coefficient γ is subsumed in the intercept in that case. We also include a strata-specific fixed effect δ_s, while ε_{iv} is an idiosyncratic error term.

Our main sample of interest is the secondary participants. We also estimate model (4) on primary participants to verify that our experiment reproduces commonly observed outcomes among participants who are directly targeted by the intervention. Regression model (4) is estimated separately for primary participants and for secondary participants, clustering standard errors at the village level.[8] This is because these participants do not receive the same intervention. In all regressions, we control for multiple hypothesis testing within families using the method recommended by Benjamini et al. (2006).

[7] We also collect a large set of covariates X which can be included in the main specification to increase precision using ML methods (e.g., Chernozhukov et al., 2018). Based on the pilot, we have identified the following candidates for ML selection: farm land ownership, amount of farm land, income from labor at baseline, family size, age, age squared, education level, literacy, caste, years of marriage and risk attitude.

[8] As a robustness check, we also calculate wild bootstrap t-statistics (e.g., Cameron et al., 2011). Results are available from the authors upon request.

For our second type of analysis, we estimate, for each treatment separately, the sample correlation in knowledge (H8) and take-up (H9) between primary participants and the secondary participants assigned to them. Village fixed effects are included to control for the mechanical correlation between primary and secondary participants that results from their relative adoption rates in that village.[9] By soaking up this source of variation in correlation between treatment villages, we are able to identify the additional correlation that arises between linked primary and secondary participants.

4.3 Mechanisms behind take-up

Our experiment is designed to distinguish between mechanisms M1, M2a-b, or M3 by comparing treatment effects on take-up and knowledge of the product:

- Under Mechanism M1, average take-up and knowledge are such that $T5 = T3 > T4 = T2 = 0$.
- Under Mechanisms M2a or M2b, average take-up is such that $T5 = T4 > T3 = T2 = 0$. Knowledge about the product is low in all treatments.
- Under Mechanism M3, average take-up is such that $T5 > T4 > T2 = 0$, $T5 > T3 > T2 = 0$ but $T4$ and $T3$ are not ranked a priori. Knowledge is such that $T5 = T3 > T4 = T2 = 0$.

Our experiment is also designed to distinguish between mechanisms M1, M2a-b, or M3 indirectly from treatment effects on engagement with the product – as measured by the average savings balance – and, consequently, on household economic welfare and women's empowerment:

- Under Mechanism M1, average savings balance and household welfare measures are such that $T5 = T3 > T4 = T2 = 0$. The effect on women's empowerment is ambiguous.
- Under Mechanism M2a, average savings balance and household welfare measures are such that $T5 = T3 < T4 = T2 = 0$ because of excess/misinformed adoption from persuasion. The effect on women's empowerment is ambiguous, but possibly negative since the peer is not benevolent.
- Under Mechanism M2b, average savings balance and women's empowerment are such that $T5 = T3 > T4 = T2 = 0$. The effect on average household welfare is ambiguous, but possibly positive if the interests of the female participant and the household are aligned.
- Under Mechanism M3, average household welfare is such that $T5 \geq T3 \geq T2 = 0$ and $T5 \geq T4 \geq T2 = 0$, depending on the respective strengths of information and persuasion. $T4$ and $T3$ are not ranked a priori.

Additional evidence on mechanisms includes the following:

- Under Mechanisms M1 and M3, we should observe correlation in the knowledge level of the primary participants and each of their assigned secondary participants. This is because, in these two mechanisms,

[9] To illustrate, imagine that the average adoption rates among primary and secondary participants in a village are $a\%$ and $b\%$, respectively. Then in $ab + (1-a)(1-b)\%$ of observations, their adoption decisions will be identical.

secondary participants are assumed to receive information directly from their primary participant.

- Under mechanisms M2a and M2b, we test whether primary participants respond to incentivization by testing whether secondary participants who sign up for S&G do so in the presence of their assigned primary participant (which is required for receiving the reward).

- Under Mechanism M2b, correlation in adoption and in engagement between the primary participants and each of their assigned secondary participants may possibly be interpreted as a manifestation of support by the primary participant – and thus as evidence in favor of M2b.

These tests complement those discussed in the previous subsection as they serve to confirm the interpretation of the reduced-form results.

5 Results: Main outcomes

We now turn to the data analysis. We start by visualizing the effect of the various treatments on the main outcomes of interest measured at the end of the intervention. More in-depth analysis is presented in the following sub-sections.

The main treatment effects are summarized in Figure 5, grouped by primary and secondary participants. Figure 5-a compares, by treatment, the percentage of participants who signed up for the bonus interest product, as reported by the S&G teams manning the village stalls. Signing up captures the impact of the treatments on participants' initial interest in the S&G product and it demonstrates the participant's *intention* to take advantage of the savings bonus by making the required initial deposit of 100₹.

Figures 5-b to 5-d examine administrative data recorded in participants' passbooks.[10] Figure 5-b shows, by treatment, the rate of take-up of the bonus interest payment, equal to the percentage of participants who kept a positive deposit amount in S&G for at least three months. It captures compliance with treatment.[11] Figure 5-c does the same for the value of these deposits, which determined the size of the bonus interest payment received from S&G at endline. Together, these variables reflect the engagement of the participant with the S&G bonus interest product. Figure 5-d shows the value of all S&G deposits made during the intervention period. It measures the impact of treatment on engagement with S&G in general, as distinct from compliance with the S&G protocol to receive the bonus payment.

Finally, Figure 5-e summarizes the specific knowledge about the S&G product, while Figure 5-f summarizes general knowledge about saving. Both are based on indices calculated as the sum of correct quiz answers in the endline survey. Together they measure participants' familiarity with the content of the information

[10] There is some discrepancy between the administrative data collected from the respondents' passbooks, and the savings data they reported in the endline survey. This is illustrated in Appendix Figures H1 and H2 which show the discrepancy in the total S&G deposits made during the project as reported in the passbooks and the endline survey. We see that participants in the T3, T4, and T5 treatment groups tend to report higher savings on average than what is reflected in their passbook – a bias that may be driven by experimenter demand. For this reason, we rely primarily on the passbook data to estimate treatment effects on engagement with the S&G product.

[11] In Appendix Tables H1 and H2, we provide additional evidence from the endline survey that, while both primary and secondary participants in the treatment groups exhibit positive deposits on average, the vast majority of them was unable to maintain a positive balance for three months or more – which is the condition to receive the bonus interest from S&G. Among secondary (primary) participants, this is true for 99% (99%) of those in the combined T1 and T2 groups, 98% (81%) in the T3 group, 90% (57%) in the T4 group, and 75% (42%) in the T5 group.

treatment provided to primary respondents in T3 and T5.

This first look at the data reveals a number of key insights. First, we see that treatment effects on savings (Figures 5-a, b, c, and d) are larger for primary participants than for secondary participants. This is as expected, since secondary participants did not receive the treatment directly from our team. This being said, we also note that the relative impact of the different treatments on the saving behavior of secondary participants is qualitatively identical to their impact on primary participants. For information treatments T3 and T5, this is at prima facie consistent with information diffusion. The fact that this is also true for T4 implies that primary participants engage more with S&G when they are incentivized to convince secondary participants to sign-up. This is true even though, in T4, they were provided no specific information about the product. This finding is reminiscent of the 'put-your-money-where-your-mouth-is' finding of Fafchamps et al. (2020): primary participants increase their own adoption of the product when they have been incentivized to persuade others.

Second, we find that treatment effects on knowledge about S&G (Figure 5-e) and general savings knowledge about saving (Figure 5-f) are similar in magnitude across primary and secondary participants and across T3 and T5 treatments. This suggests that information about the product diffused well between primary and secondary participants, independently of whether they used the product or not. But information by itself is insufficient to induce widespread adoption: in T3 the provision of information about the product and its benefits does not lead to more take-up of the S&G product among secondary participants: almost none of the secondary participants in the T3 group used the product after signing up, even though they have the same level of product knowledge (Figure 5-e) and the same level of general savings knowledge (Figure 5-f) as secondary participants in the T3 group. This provides evidence against hypothesis H1: information is not the main driver of take-up.

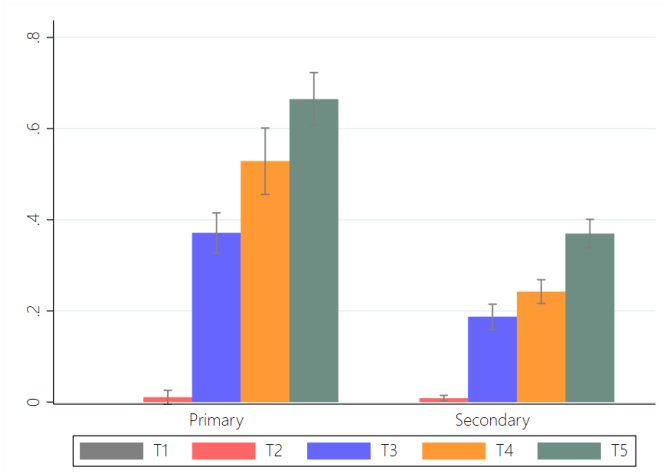
Thirdly, persuasion of the peers is the main driver of product adoption among secondary participants, and it is achieved without increasing their product knowledge. Indeed, the only groups of secondary participants with a positive adoption rate are T4 and T5, and their product knowledge is equal to or lower than that of the T3 group (Figure 5-e). This supports hypothesis H2: persuasion by primary participants is the main driver of adoption.

Fourthly, the combination of both interventions in T5 leads to the highest adoption rate among secondary participants. As shown in Figure 5, both sign-up and compliance rates are almost three times higher in the T5 group of secondary participants than in the T4 group (Figure 5-a and Figure 5-b). This provides evidence in favor of hypothesis H3: persuasion is more effective when the primary participant has been provided with relevant information about the product.

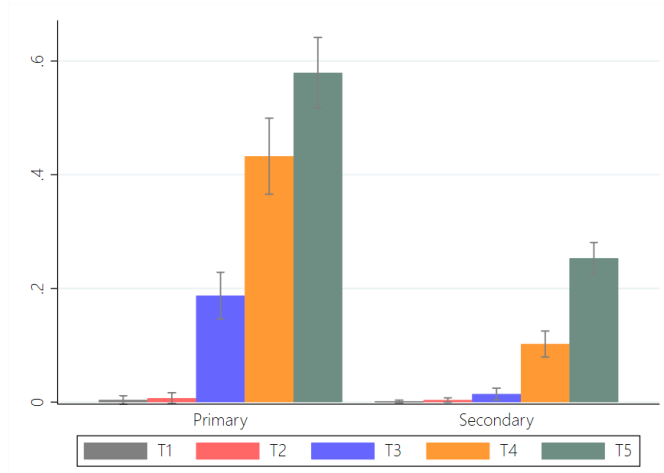
Finally, informed take-up of the savings product in T3 does not result in increased engagement with the product by secondary participants relative to T4, as evidenced by the amount of deposits maintained for at least three months (Figure 5-c). If anything, we observe the opposite: while 18% of secondary participants signed up for the product in T3, only 1.4% kept at least 100₹ on their S&G account for three months – indicating a conversion rate of only 8%. The conversion rate is much higher in T4 (43%). This finding contradicts hypothesis H4, that is, the idea that sign-up under T4 contains more mistakes, leading to lower engagement later. A similar picture arises for total deposits over the six-month period of the intervention

Figure 5: Graphical illustration of primary outcomes results

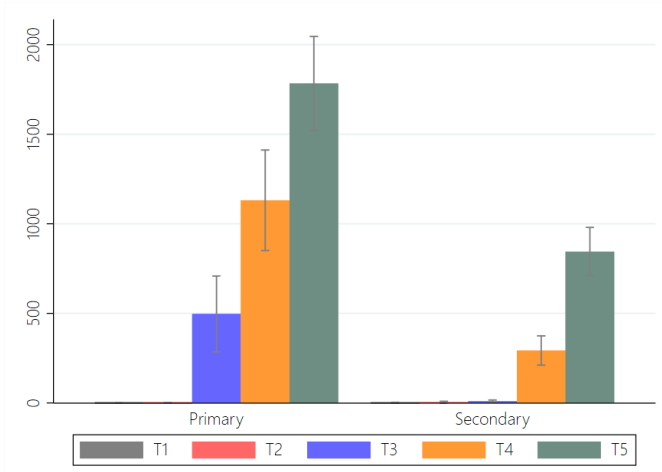
a) Sign-up rate (%)



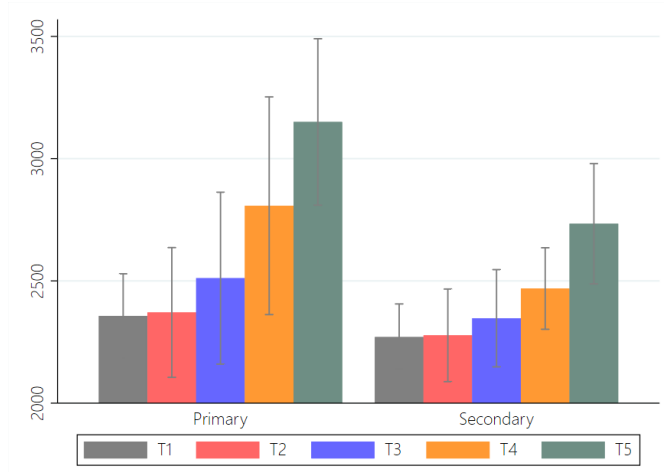
b) Take-up rate (%)



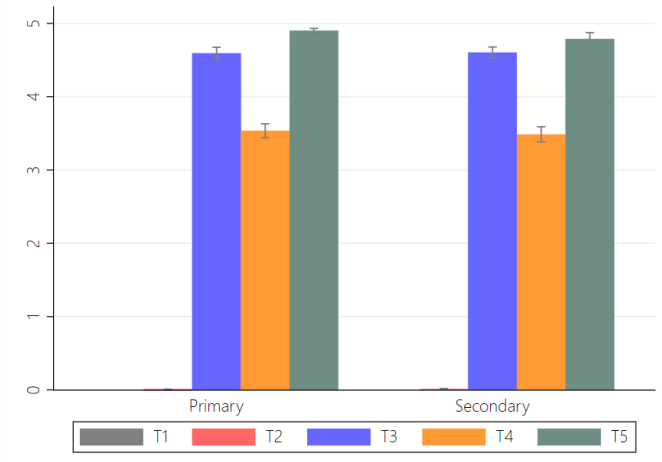
c) S&G deposits 3+ months (₹)



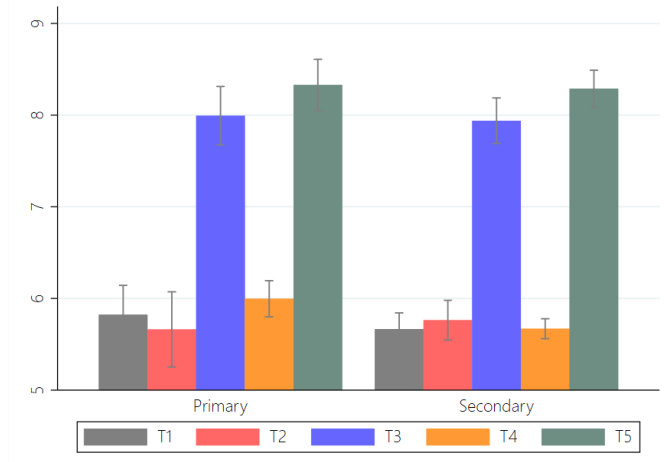
d) Gross S&G deposits (₹)



e) Knowledge about S&G (score, 0-5)



f) Knowledge about saving (score, 0-14)



Notes: Data from endline survey. Bar plots depicting the mean of a variable and its associated confidence intervals are generated using standard errors clustered at the village level. Figure a) reports information collected by our team during the visits at the villages. From Figures b) through d) present information recorded in passbooks. Figures e) and f) display information derived from an index, constructed as the sum of correct quiz answers. The results are categorized by treatment group and participant type (primary versus secondary). Specifically, Figure a) shows the percentage of participants who initially signed up with S&G. Whereas, Figure b) shows the percentage of participants who complied with the savings contract. Figure c) summarizes deposits kept in the Bank for at least three months. Figure d) shows total deposits kept in the Bank, regardless of the duration. Figure e) summarizes general knowledge of saving, while Figure f) summarizes the specific knowledge of the S&G product.

(Figure 5-d). This constitutes evidence against H4: information does not reduce the rate of mistaken sign-up; if anything, it increases it.

Taken together, these findings are most in line with Mechanism M3: take-up and engagement with the S&G financial product are triggered by the incentive treatment that induces primary participants to persuade secondary participants. The pure information dissemination mechanism M1 is rejected by the data: take-up and engagement are lowest in treatment T3 and highest in T5 even though knowledge levels of primary and secondary participants are identical across the two treatments; and the conversion rate from sign-up to take-up is lowest in T3. We also find no evidence for mechanism M2a: persuasion increases adoption, but not by inducing mistakes at sign-up just to get the reward.

5.1 Regression results

We now test our four main hypotheses more formally with the help of the regression analysis outlined in Section 4.2. We examine how the treatments affect the participants' compliance, engagement and knowledge of the S&G product and their knowledge of formal savings in general. Since, as shown in Figure 5, the pure control group T1 and the access group T2 have very similar results, we combine them into one single control group for the regression analysis. As specified in Equation (4), each regression includes the three treatment dummies, T3, T4 and T5, plus controls for stratification dummies. They also include pre-treatment savings, both formal and informal, as ANCOVA control variables.[12] Standard errors are clustered at the village level, which takes care of possible correlation in behavior between participants. We also report in brackets p-values corrected for multiple hypothesis testing withing families using the methodology proposed by Benjamini et al. (2006).

Table 1 presents the results regarding savings outcomes for secondary participants. Results for primary participants are reported in Appendix Table H3, Panel A. Our main results of interest are in the first three columns of the table, which report estimated average treatment effects. At the bottom of the table, we report the mean of the variable among controls as well as p-values of tests of equality between each pair of treatments, in addition to standard statistical values of interest.

In Column (1), we report treatment effects on the initial sign-up rate. To recall, this variable captures the intention to adopt. Since the pure control group T1 could not sign-up for the product, observations from that group are omitted for this regression – but they are included in the rest of the Table. We find that the T3, T4, and T5 groups have sign-up rates of 18%, 23%, and 36%, respectively. Column (2) presents estimates of treatment effects on the take-up rate of the bonus interest product during the study period. It is zero in both control groups T1 and T2, while it is only 1% for T3, 10% for T4 and 25% for T5, respectively. As calculated earlier, these figures imply a much higher conversion rate for T4 and T5 than for T3. In both columns, the pairwise differences between treatment effects are statistically significant at the 1% level, confirming the earlier conclusions draw from Figure 5. In Column (3), we present treatment effects on the amount of money that secondary participants kept in the Bank for at least 3 months. This variable captures the participant's intensity of engagement with the savings commitment product. We find that engagement with the bonus

[12] Results with a longer list of control are identical to the main results reported here and are available from the authors upon request.

Table 1: Treatment Effects on Savings for Secondary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Information from passbooks				Endline survey information	
	Sign-up Rate [0,1]	Take-up Rate [0,1]	S&G deposits 3+ Months (₹)	Gross S&G Deposits (₹)	Endline S&G Balance (₹)	Formal Savings (₹)	Informal Savings (₹)
Information (T3)	0.18***	0.01**	7	81	-241	117	-178
	(0.01)	(0.01)	(11)	(106)	(1254)	(131)	(151)
	[0.00]	[0.03]	[0.20]	[0.20]	[0.32]	[0.17]	[0.12]
Persuasion (T4)	0.23***	0.10***	289***	193*	1152	141	-162**
	(0.01)	(0.01)	(40)	(101)	(731)	(126)	(81)
	[0.00]	[0.00]	[0.00]	[0.05]	[0.08]	[0.12]	[0.04]
Both (T5)	0.36***	0.25***	842***	461***	1953**	288**	-203**
	(0.02)	(0.01)	(66)	(141)	(809)	(140)	(80)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.02]	[0.04]	[0.02]
Control mean:	0.01	0.00	3	2274	11228	2862	782
Clusters:	144	180	180	180	180	180	180
Observations:	3387	4245	4245	4245	4245	4245	4245
Adjusted R^2:	0.11	0.14	0.09	0.01	0.01	0.00	0.01
p-value T3-T4:	0.00	0.00	0.00	0.35	0.21	0.85	0.92
p-value T3-T5:	0.00	0.00	0.00	0.02	0.06	0.24	0.88
p-value T4-T5:	0.00	0.00	0.00	0.08	0.12	0.30	0.71

Notes: Data on secondary participants from endline survey. T1 observations are omitted from column (1) because sign-up was not possible there. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment level of savings, both formal and informal, as covariates. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

interest product is higher in T4 and T5 than in T3, a difference that is statistically significant at the 1% level and of large magnitude. While average engagement in T3 (7₹) is not statistically different from that of control participants (3₹), the T4 and T5 groups have substantially higher averages of 289₹ and 842₹, respectively. This confirms that engagement with the bonus interest product is economically and statistically higher in T4 and T5 than in T3.

In Column (4), the dependent variable is the total gross deposits on the S&G account over the duration of the intervention. This captures total engagement with the S&G savings account over the course of the intervention, independently from the bonus interest product. In column (5), the dependent variable is the total S&G balance of the participant at endline. It combines deposits and withdrawals made during the intervention with the participant's outstanding balance at baseline – which we control for in the regressions. These two regressions capture the average effect of the three treatments on savings more generally, over and above the of control participants. We find no statistically significant effect of the information treatment on either of the two variables: for gross deposits, the coefficient of T3 is small in magnitude (3.6% of the control average) while for the endline balance it is negative and small (-2.1% of the control average). The persuasion treatment T4 has larger coefficients, but only significant at the 10% level for gross deposits. The combined treatment, in contrast, has a larger and more significant effect: 20% more gross deposits and a 17% higher endline balance relative to controls. Given that these two variables are noisier, differences between treatments are not all

statistically significant – but treatment T5 is statistically different from T3 in both cases.

The last two columns of Table 1 present treatment effects on formal and informal savings reported by participants in the endline survey. Results indicate a slight positive effect of the treatments on self-reported formal savings. But the endline balance of formal savings among control participants is well below the endline S&G balance found on respondents' passbooks. This suggests considerable under-reporting of savings (-75%) by respondents. This in turn probably explains why estimated treatment effects on self-reported formal savings are lower than in column (5). We also note a large relative fall in self-reported informal savings associated with treatment, a fall that is statistically significant for T4 and T5. This suggests that at least some of the additional deposits going to S&G as a result of treatment come from informal savings.

The rest of the section presents a similar analysis for knowledge about S&G (Table 2) and about savings in general (Table 3). The findings confirm what we learned from Figure 5: knowledge about S&G village-level activities is non-existent among control participants, but secondary participants in treated villages have all heard about S&G from another villager (column (1) of Table 2). The rest of Table 2 indicates that specific knowledge about S&G activities have spread widely to the great majority of secondary participants in treated villages, albeit a little less under T4. This indicates that S&G visits to the villages have been widely discussed among our population of interest.

Table 2: Treatment Effects on Knowledge About the S&G Bonus Interest Product for Secondary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Received Information [0,1]	Aware S&G [0,1]	Where Deposit [0,1]	How long Deposit [0,1]	How much Deposit [0,1]	Max amount Deposit [0,1]	Total Score (2)-(6)
Information (T3)	1.00***	0.98***	0.89***	0.96***	0.84***	0.91***	4.60***
	(0.00)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.04)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Persuasion (T4)	0.99***	0.96***	0.76***	0.79***	0.74***	0.23***	3.47***
	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.05)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Both (T5)	1.00***	0.99***	0.93***	0.93***	0.97***	0.96***	4.78***
	(0.00)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.04)
	[0.00]	[0.00}	[0.00}	[0.00}	[0.00]	[0.00]	[0.00]
Control mean:	0.00	0.00	0.01	0.00	0.00	0.00	0.01
Clusters:	144	144	144	144	144	144	144
Observations:	3387	3387	3387	3387	3387	3387	3387
Adjusted R^2:	0.98	0.92	0.63	0.70	0.61	0.70	0.89
p-value T3-T4:	0.15	0.04	0.00	0.00	0.00	0.00	0.00
p-value T3-T5:	0.66	0.63	0.02	0.16	0.00	0.01	0.00
p-value T4-T5:	0.28	0.02	0.00	0.00	0.00	0.00	0.00

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment level of savings, both formal and informal, as covariates. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table 3 covers more general questions about savings that were an integral part of the information treatment. We note that secondary participants in T3 and T5 have all received some information relative to savings.

This confirms that information diffusion has been quite effective among secondary participants – even when primary participants were not incentivized. This also applies to specific pieces of financial literacy that are the subject of columns (2) to (7): in all cases, we see a statistically significant increase in financial literacy knowledge over and above what the control respondents know. In contrast, we find no such evidence for the pure persuasion treatment T4, in which no financial literacy information was provided to primary participants.

Taken together, this evidence demonstrates that the information treatment worked as intended: it did not have much of an effect on awareness about S&G activities in the villages – participants heard about it anyway, often in great detail; but it caused a significant boost in financial literacy knowledge among secondary participants in T3 and T5 villages – indicating that primary participants diligently did what we asked them to do. This evidence confirms that our results on take-up are not due to a poor dissemination of information, i.e., a failed information treatment. On the contrary, Table 3 shows that it was a massive success, inducing a considerable increase in financial literacy relative to the knowledge level of control participants: as seen in column (7) of Table 3, there is, in T3, a significant increase in total financial knowledge of 39% relative to the control mean, and an even larger to 45% effect in T5. Yet, there is no such increase in T4, confirming that take-up under T4 cannot be due to diffusion of financial knowledge to T4 villages through some other channel.

Table 3: Treatment Effects on Financial Literacy Knowledge About Savings for Secondary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Received information [0,1]	Savings lose value [0,1]	Beneficial why [0,4]	Bank services [0,4]	Bank savings options [0,4]	Interest rate [0,1]	Total Score (2)-(6)
Information (T3)	1.00***	0.15***	0.49***	0.68***	0.71***	0.21***	2.23***
	(0.00)	(0.02)	(0.06)	(0.06)	(0.03)	(0.02)	(0.13)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Persuasion (T4)	-0.00	-0.05*	0.04	-0.04	0.01	-0.00	-0.04
	(0.00)	(0.03)	(0.04)	(0.05)	(0.04)	(0.02)	(0.09)
	[0.38]	[0.03]	[0.12]	[0.18]	[0.38]	[0.39]	[0.27]
Both (T5)	1.00***	0.24***	0.59***	0.77***	0.77***	0.21***	2.57***
	(0.00)	(0.02)	(0.05)	(0.05)	(0.03)	(0.02)	(0.11)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Control mean:	0.00	0.39	1.73	1.98	1.11	0.52	5.71
Clusters:	180	180	180	180	180	180	180
Observations:	4245	4245	4245	4245	4245	4245	4245
Adjusted R^2:	1.00	0.05	0.07	0.09	0.17	0.04	0.19
p-value T3-T4:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
p-value T3-T5:	0.49	0.00	0.09	0.18	0.15	0.89	0.02
p-value T4-T5:	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment level of savings, both formal and informal, as covariates. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

5.2 Heterogeneity in treatment effects

As additional robustness analysis, we prespecified three dimensions of treatment effect heterogeneity that we would explore for our main outcome variables. First, we examined whether our findings vary by the initial

level of saving behavior of participants, as ascertained by various questions on the perceived value of savings.[13] We find no evidence of heterogeneity of treatment effects on sign-up and take-up according to answers to these questions. Second, we investigated possible heterogeneity by decision making within the household.[14] We also collected information related to mobility as proxies for social network. We similarly find no evidence of heterogeneity of treatment effects on sign-up and take-up according to answers to these questions. Third, we collected data on social desirability, using the 13 items of the Marlowe-Crowne scale (Crowne and Marlowe, 1960).[15] We examine treatment effect heterogeneity by baseline median social desirability level. This analysis could help understand whether the actual saving behavior of secondary participants is affected by their desire to "fit in." Again, we find no evidence supporting this idea. Results from this analysis are available from the authors upon request.

5.3 Correlations between linked primary and secondary participants

We now turn to hypotheses H8 and H9. We start by examining whether the sign-up and take-up decisions of linked primary and secondary participants are correlated with each other. To this effect, we estimate regressions in which the unit of observation is a secondary participant, the dependent variable is a measure of their product adoption (see columns (1) to (5) of Panel A Table D4), and the regressor of interest is the same measure of adoption for the primary participant *randomly assigned to that person*. We do this separately by interacting the adoption variable of the primary participant with treatment dummies. Standard errors are clustered by village and village fixed effect are included. Results are shown in Panel A of Table 4.

Since gains from take-up are likely heterogeneous across participants, we do not expect that the circulation of information about S&G between primary and secondary participants in T3 would generate correlation in their adoption decisions since the three secondary participants were randomly assigned. This is indeed what we find in Panel A of Table 4: there is no significant correlation between linked primary and secondary participants for each of the five measures of adoption used. If persuasion works through the same means, that is, the circulation of information about who benefits of the bonus interest product, we should expect the same: no correlation. This is not what we find: in T4 and T5, there is a strong positive correlation between the adoption decisions of linked primary and secondary participants, and this correlation is statistically significant for eight out of ten T4 and T5 regression coefficients in the five regressions. This raises the question of why.

One possibility is that primary participants who are better informed about S&G or have better financial knowledge are better able to persuade secondary participants in order to receive the reward. If this is the case, we should observe a positive correlation in knowledge levels between linked primary and secondary participants. To investigate this idea, we estimate correlation levels in the measures of knowledge about S&G used in Panel B of Table D4, and for the measures of financial literacy boosted by the information treatment used in Panel C of Table D4. Results for these regressions are shown in Panel B Table 4. For all three treatments, we

[13] These questions are: "What are your main saving goals?", "How often do you save money?", "Have you had a saving plan for old age?", and "What is the least likely reason to cause savings to lose their value?".

[14] We asked several questions which were self-reported by the eligible female member of the household: "Who is the main decision maker on each of the following topic?" The questionnaire contained 12 standard topics that included expenditure decisions on specific items, and decisions in general. The possible answers included: "You", "Your spouse", "Both", or "Other individuals".

[15] The scale, developed by psychologists, has been validated in various contexts (e.g., Dhar et al., 2022). It asks whether respondents have various too-good-to-be-true personality traits – such as whether the respondents is excellent listeners or never hurts anyone's feelings on purpose – to create a measure of social desirability bias.

Table 4: Correlations Between Primary and Secondary Participants in T3, T4 and T5

	(1)	(2)	(3)	(4)	(5)
			Panel A: Savings		
	Sign-up Rate [0,1]	Take-up Rate [0,1]	S&G deposits 3+ Months (₹)	Gross S&G Deposits (₹)	Endline S&G Balance (₹)
Correlation in T3	-0.00	0.00	-0.00	-0.03	-0.05
	(0.03)	(0.01)	(0.00)	(0.03)	(0.04)
	[0.55]	[0.55]	[0.20]	[0.20]	[0.20]
Correlation in T4	0.06*	0.09***	0.04**	0.03	0.05**
	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)
	[0.10]	[0.00]	[0.10]	[0.20]	[0.10]
Correlation in T5	0.04	0.09***	0.09**	0.07*	0.09**
	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)
	[0.23]	[0.01]	[0.10]	[0.12]	[0.06]
Observations	2,524	2,524	2,524	2,524	2,524
Adjusted R^2	0.07	0.14	0.12	0.07	0.11
	Panel B: Knowledge about S&G				
	Where Deposit [0,1]	How long Deposit [0,1]	How much Deposit [0,1]	Max amount Deposit [0,1]	Total Score (1)-(4)
Correlation in T3	0.03	0.01	-0.02	-0.03	-0.04
	(0.03)	(0.04)	(0.04)	(0.04)	(0.03)
	[1.00]	[1.00]	[1.00]	[1.00]	[1.00]
Correlation in T4	0.03	0.01	-0.01	-0.02	-0.00
	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)
	[1.00]	[1.00]	[1.00]	[1.00]	[1.00]
Correlation in T5	-0.02	0.02	-0.04*	-0.03**	-0.09
	(0.04)	(0.06)	(0.02)	(0.01)	(0.07)
	[1.00]	[1.00]	[1.00]	[0.38]	[1.00]
Observations	2,524	2,524	2,524	2,524	2,524
Adjusted R^2	0.11	0.18	0.13	0.56	0.44

Notes: Data on secondary participants from endline survey in T3, T4, and T5. The dependent variables for secondary participants appear on top. The same variable for primary participants appear as main regressor in the equation interacted with treatment dummies. All OLS regressions include village fixed as covariates. Panel A shows the results on savings outcomes. Panel B reports the findings on the awareness of our specific saving product S&G. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

find no evidence of positive correlation between the S&G knowledge or financial literacy of linked primary and secondary participants. This is true even though, as shown in Panels B and C of Table D4, the treatments have differential average effects on knowledge. One possible interpretation is that information on S&G and financial literacy diffused widely with T3 and T5 villages, thereby breaking any correlation between the knowledge levels of linked primary and secondary participants. Whatever the case may be, what we can conclude from this analysis is that correlation in adoption between linked participants is not driven by correlation in knowledge.

Since we designed our experiment to investigate the role of information in the diffusion of adoption, we cannot provide a definitive explanation for the correlation in adoption levels shown in Panel A of Table 4. But we can speculate. One possibility, mentioned in Fafchamps et al. (2021), is that primary participants 'put their money where they mouth is', i.e., adopt themselves in order to persuade others. If this were true, we would expect a strong positive correlation in sign-up, which is when the primary participants earn their reward. But it would not explain subsequent correlation take-up or in savings: once the reward has been received, the primary participant no longer needs to pretend. This is not, however, what we observe: if anything, there is

less correlation cross linked participants at sign-up than in take-up or savings. Another possibility, untested, is that primary participants persuade themselves by persuading others: incentivized to motivate others, they develop a rationale for adoption that, subsequently, influence their own behavior. Hence, primary participants who develop a stronger such rationale are better able to convince others as well as themselves – hence the correlation in take-up and savings. More research is needed to test this possible interpretation.

6 Ancillary outcomes

6.1 Lumpy expenditures (H5)

We now turn to the effect of the treatments on the ancillary outcomes. We start with lumpy expenditures, which should be facilitated by savings: participants who saved during the intervention may then use their accumulated savings to purchase durables at endline. To investigate this possibility, we estimate regressions similar to those reported in Tables 1 to 3. Table 5 presents the results for secondary participants. Equivalent results for primary participants are reported in Table H4 in the Appendix.

Table 5: Treatment Effects on Expenditure and Livestocks for Secondary Participants

	(1) Expenditure 1 week (₹)	(2) Expenditure 1 month (₹)	(3) Expenditure 6 months (₹)	(4) Own Animals [0,1]	(5) Number Animals (count)
Information (T3)	10	-35*	-561	-0.01	-0.15
	(51)	(21)	(454)	(0.03)	(0.13)
	[1.00]	[1.00]	[0.56]	[1.00]	[0.57]
Persuasion (T4)	6	-31	-1352***	0.01	0.28***
	(37)	(21)	(310)	(0.02)	(0.08)
	[1.00]	[1.00]	[0.00]	[1.00]	[0.00]
Both (T5)	-11	47*	-1678***	-0.22***	-1.10***
	(31)	(26)	(224)	(0.02)	(0.08)
	[1.00]	[1.00]	[0.00]	[0.00]	[0.00]
Control mean:	1293	3480	10298	0.79	2.30
Clusters:	180	180	180	180	180
Observations:	4245	4245	4245	4245	4245
Adjusted R^2:	0.00	0.97	0.03	0.04	0.08
p-value T3-T4:	0.95	0.87	0.12	0.57	0.00
p-value T3-T5:	0.69	0.00	0.02	0.00	0.00
p-value T4-T5:	0.66	0.01	0.31	0.00	0.00

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

We collected survey data on three types of consumption expenditures: (1) household spending on perishable goods, such as foods and drinks, in the week before the survey; (2) household spending on semi-durable goods in the last month; and (3) household spending on durables in the last six months. We regard expenditures in category (1) as non-durables, and expenditures in category (3) as durables, with category (2) in between the two. Regression results, shown in columns (1) to (3) of Table 5,[16] show no significant effect of treatments on

[16]Results of for individual expenditure items are reported in Tables H9, H10 and H11 in the Appendix.

weekly expenditures (column 1), marginally significant effects with opposite signs on monthly expenditures, and significantly negative effects on durable expenditures for T4 and T5, the two treatments that induce an increase in savings – to recall, T3 does not induce more saving. The magnitude of these effects is non-negligible: -13% in durable expenditures for T4, and -16% for T5. Looking more closely at individual components of durable expenditures in Appendix Table H11, the decrease in durable spending is driven primarily by a fall in clothing expenditures for adult females and in expenditure on ceremonies. These findings lead to a rejection of H5: the additional savings induced by the two persuasion treatments had not, by the time of the endline survey, resulted in an increase in durable expenditures. One possible interpretation is that, by inducing increased savings, the interventions diverted funds that would otherwise have been spent on durables in the six months preceding the endline survey. Since these same interventions also increased the savings balance at endline, a catching up in durable expenditures is possible after endline, something we did not observe.

The last two columns of Table 5 focus on household livestock ownership: in column (4), the dependent variable equals 1 if the household of the secondary participant owns livestock (extensive margin); in column (5), it is the number of animals owned (intensive margin). Since each regression controls for baseline values, these two regressions estimate the effect of the treatments on livestock accumulation. We find no evidence that treatments led to an increase in animal ownership. On the contrary, we find that treatment T5, which has the strongest effect on savings, is associated with a 22 percentage point decline in animal ownership among secondary households, compared to an average of 79% ownership among control households. We find a similarly large and significant decline in the number of animals associated with T5, equivalent to a 48% fall (-1.1/2.3) in animal ownership. These findings lead to a rejection of H5 for livestock as well. One possible interpretation is similar to that for lumpy expenditures: the increased savings induced by T5 crowded out animal ownership. We do, however, find a smaller but significantly positive effect of treatment T4 on the number of animals owned, suggesting a possible impact on the intensive margin consistent with H5.

6.2 Income (H6)

In Table 6, we examine the effects of the treatments on the individual incomes of the female participant and her husband, as well as on the combined household income, which may include other household members. We observe that treatments T3 and T5 are associated with a statistically significant but small increase in the husband's income (+1.6% of the control average for T3 and +0.9% for T5), with no change in the considerably smaller income accruing to the female participants (which represents 5.7% of the husband's income on average). Consequently, the effect on household income mirrors that of the husband's income. We observe no effect associated with T4. These findings support hypothesis H6, which posits that the financial literacy information treatment is responsible for raising income. However, this effect does not operate through the female participant's own income.

6.3 Women's Empowerment (H7)

We have already seen from Table 6 that the treatments did not improve one measure of women's empowerment, namely the income of the participant. We continue in Table 7 by examining the effect of the treatment on other dimensions of empowerment and well-being for the female participants.

Table 6: Treatment Effects on Income for Secondary Participants

	(1) Household Income (₹)	(2) Own Income (₹)	(3) Husband Income (₹)
Information (T3)	207***	29	179***
	(26)	(21)	(12)
	[0.00]	[0.21]	[0.00]
Persuasion (T4)	-9	-10	1
	(13)	(13)	(2)
	[0.46]	[0.46]	[0.64]
Both (T5)	100***	3	98***
	(18)	(17)	(8)
	[0.00]	[0.64]	[0.00]
Control mean:	11719	635	11084
Clusters:	180	180	180
Observations:	4245	4245	4245
Adjusted R^2:	0.99	0.97	1.00
p-value T3-T4:	0.00	0.03	0.00
p-value T3-T5:	0.00	0.19	0.00
p-value T4-T5:	0.00	0.24	0.00

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

We start with two indices of autonomy. The first is a decision index, which captures the participant's autonomy in decision-making. Participants were asked "Who is the main decision maker?" for twelve common scenarios related to finances and employment. We assigned a score of one for "You" and zero for "Spouse," "Both," or "Others." Higher scores indicate greater individual decision-making power. The control group averages 1.09 independent decisions out of twelve. Results show a significant effect of all three treatments on decision participants' autonomy.[17] This effect is large, equivalent to a 104% (T3), 109% (T4) and 136% (T5) increase relative to control participants. These are very large increases in reported decision autonomy, and they are present in all three treatments, including T3 which, as we saw, had no effect on the take-up of the S&G bonus interest product. This implies that this effect on women's autonomy is a direct effect of the treatment itself, not mediated by take-up or savings.

The second index of women's autonomy is a mobility index, which measures the participant's freedom of movement. Female respondents answer questions about what kind of permission they need to visit seven commonly visited locations. We assign a score of one for "Yes alone" and zero for "Yes not alone" or "No." The average for the control is 1.14 independent permissions out of seven. Results show a large and significant increase in the permission index. Treatment T3 leads to an increase of 42% relative to controls, while treatments T4 and T5 result in increases in the permission index of 2.5 and 2.3 times, respectively. Both of these findings provide support to hypothesis H7: the treatments increased women's empowerment through decision making.

In columns (3) to (7), we turn to various measures of well-being. We start in column (3) with the self-reported

[17] See Column (1) in Appendix Table H8 for evidence of a decrease in participants answering "Husband" to the decision-making questions.

Table 7: Treatment Effects on Empowerment and Health for Secondary Participants

	(1) Decision Index "Me" [0,12]	(2) Mobility Index "Alone" [0,7]	(3) General Health [0,5]	(4) Worried General [1,10]	(5) Worried Financial Situation [1,10]	(6) Worried Food Security [1,10]	(7) Worried Medical Treatment [1,10]
Information (T3)	1.14***	0.48***	-0.02	-0.65***	-0.73***	-0.81***	-0.48***
	(0.11)	(0.16)	(0.05)	(0.14)	(0.13)	(0.15)	(0.15)
	[0.00]	[0.00]	[0.14]	[0.00]	[0.00]	[0.00]	[0.00]
Persuasion (T4)	1.19***	2.85***	0.05*	-0.14	-0.28***	-0.23***	0.09
	(0.11)	(0.10)	(0.03)	(0.10)	(0.10)	(0.09)	(0.08)
	[0.00]	[0.00]	[0.02]	[0.05]	[0.00]	[0.00]	[0.08]
Both (T5)	1.48***	2.58***	0.05	-0.87***	-0.99***	-0.99***	-0.88***
	(0.10)	(0.11)	(0.03)	(0.11)	(0.10)	(0.12)	(0.09)
	[0.00]	[0.00]	[0.03]	[0.00]	[0.00]	[0.00]	[0.00]
Control mean:	1.09	1.14	3.81	6.22	5.47	6.13	6.28
Clusters:	180	180	180	180	180	180	180
Observations:	4245	4245	4245	4245	4245	4245	4245
Adjusted R^2:	0.26	0.32	0.00	0.02	0.04	0.04	0.03
p-value T3-T4:	0.66	0.00	0.14	0.00	0.00	0.00	0.00
p-value T3-T5:	0.00	0.00	0.15	0.13	0.03	0.31	0.01
p-value T4-T5:	0.01	0.05	0.97	0.00	0.00	0.00	0.00

Notes: Data from endline survey. Variables include indices on decision-making, permission, and various worries. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. The numbers in square brackets are sharpened False Discovery Rate (FDR) q-values computed using Benjamini et al. (2006) method for Multiple Hypothesis Testing (MHT). *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

health status of the female participant. This is an index measured on a scale from 1 (very bad) to 5 (very good). The average for control participants is 3.81. We see very little change in that index as a result of treatment. The remaining four columns focus on answers to questions about sources concerns for the participant – in general, and more specifically regarding worries about finances, food security, or medical treatment. We find a significant reduction in concerns in most cases. The reductions are larger for T3 and T5 – which were associated with an increase in husband income – and more muted (and sometimes not significant) for T4. Similar treatment effects are found for primary participants (see Appendix Table H5). These findings provide additional support for hypothesis H7, although, once again, these treatment effects do not appear mediated by women's income. They also do not appear to be the result of an improvement in women's mobility: we indeed saw dramatic improvements in mobility for T4 and T5, but much smaller effects for T3, while here the effect of T3 is much larger than for T4.

These findings align with the fact that, at endline, a large fraction of treated primary and secondary participants report that they can better "handle a major unexpected expense," "secure their financial future," "feel like they have the things they want in life" and "enjoy life because of the way they are managing their money" (see Appendix Figure H3).

7 Interpretation and mechanisms

7.1 Adoption

Our experiment was designed to distinguish between mechanisms M1, M2a-b, and M3 by comparing treatment effects on take-up and knowledge of the product. Our results overwhelmingly reject mechanism M1,

that is, the idea that it is information that drives adoption. The main evidence for rejection is that, in the information treatment T3, secondary participants hardly sign-up or take-up the bonus interest product even though they are well informed about S&G and about financial literacy. The lack of correlation in knowledge between linked primary and secondary participants further indicates that information did not diffuse solely contact between linked participants, but rather diffused widely in the treated villages. This means that secondary participants hardly adopted the product even though they were well informed about its existence and potential benefits.

The results also provide valuable insights regarding persuasion. In T4 and T5, the objective of incentivization is to induce the primary participant to put more effort in convincing their assigned secondary participants to sign up for the product. In treatment T4, the primary participant is only provided limited information about the S&G product. Consequently, she may have to rely on non-informative techniques, which could include friendly persuasion, e.g., by emphasizing camaraderie or group identity, or misdirection and various forms of social pressure. If such techniques are effective in our setting, we should observe significant sign-up and take-up in T4, which we do. It follows that persuasion can induce adoption without providing the financial literacy information that would allow secondary participants to make a fully informed decision. This is indeed what we find: secondary participants in T4 adopt in large numbers but their level of financial literacy remains comparable to control villages – a finding that constitutes additional evidence against mechanism M1.

The results also allow us to reject the idea that the increase in sign-up in treatment T4 is driven purely by misdirection or social pressure by primary participants keen to get the sign-up reward. If misdirection or pressure were the driving force behind sign-up in T4, we would expect that, after sign-up, some secondary participants would subsequently realize that the product is not beneficial for them. This is not what we find: not only are secondary participants much more likely to sign up in treatment T4 than in T3, they are also much more likely to convert from sign-up to take-up, something that should not have occurred if signing up was a mistake.

It is also conceivable that secondary participants in T4 and T5 may interpret the reward as inducing the primary participant to misdirect them. This signaling effect, if present, would reduce the ability of primary participants to convince others to adopt, as shown for instance by Deserrano et al. (2022). If this were the case, we would expect less sign-up in T5 than in T3 since the only difference between the two is the addition of the reward in T4. We find the exact opposite: there is much more sign-up and take-up in T5 than T3. We see this as increasing the external validity of our findings to common situations when referral-by-clients is rewarded.

In treatment T5, the primary participants are provided with detailed financial literacy information. If this information makes convincing secondary participants easier, we expect the primary participant to make use of it. It follows that, if information facilitates persuasion, incentivization should be more successful in T5 than in T4, which is exactly what happens in our setting: secondary participants sign-up and take-up more, and they are better informed about financial literacy.

We can further rule out that our results are simply due to sharing the reward between primary and secondary participants. First, the magnitude of the reward is inferior to the financial effort that signing up represents[18] –

[18]The primary participant receives a fixed payment of 50₹ for being present at sign-up only if the secondary participant is eligible, which requires having

which rules out signing up purely for a piece of the reward. Second, we find little evidence of reward sharing in practice.[19] Third, if secondary participants signed up only to get a share of the reward, we would expect no engagement with the product after sign-up by pairs of primary and secondary participants – which is the opposite of what we find.

The evidence thus supports mechanism M2b: secondary participants in T4 and T5 sign-up in larger numbers and are more likely convert from signing up to taking up the product by keeping savings in S&G for three months. We nonetheless do not find strong evidence that this is achieved because of pent-up demand for autonomy. Indeed, if this were the case, we would have expected to find that secondary participants feel more empowered the more they adopt the product. This is not really what the results show in Table D7: even though there is an increase for one of our two indices of women's empowerment in T4 and T5, the difference in the other index is more muted, and we find improvements in reported empowerment even in T3 when participants rarely adopt the product.

To summarize our findings regarding M2, we found that persuasion did induce sign-up and take-up without information. But the mechanism by which this was achieved does not appear to have been either misdirection by an incentivized primary participant or a pent-up demand for autonomy. Rather, the correlation in adoption between linked primary and secondary participants suggest that the process of persuasion itself triggers joint interest in the product between randomly linked participants.

Turning to mechanism M3, we find strong support for the idea that providing both incentive and information to the primary participant in treatment T5 has the strongest effect on sign-up and an even stronger effect on the conversion between sign-up and take-up. This, however, does not seem to come from incentivized primary participants persuading others by transferring their own financial knowledge to them. Indeed, if this were the case, we would expect to find a correlation in knowledge between linked primary and secondary participants – a correlation that is not there. Rather, the wide diffusion of financial literacy that we observe in T5 villages may have made secondary participants generally more receptive, without primary participants necessarily using their own knowledge to convince them to adopt.

7.2 Ancillary outcomes

Although we did not pre-specify specific mechanisms for the impact of treatment on household ancillary outcomes, we nonetheless implicitly assumed that improvements in these outcomes would result from adoption of the S&G product. This is not what we find. If anything, the treatments seem to have displaced expenditures on durable consumption and, in the case of T5, livestock. The two information treatments are shown to have increased husbands' income, especially so for T3 in spite of very minimal take-up of the bonus interest itself. The three treatments led to reported improvements in women empowerment, but not in ways commensurate with adoption of the product. Finally, both information treatment T3 and T5 resulted in large reduction in material concerns among secondary participants, in spite of having very dissimilar effects on adoption of the S&G product.

deposited a minimum of 100₹ on her account in the preceding month.

[19] According to our data, only 39 primary participants (14%) in T4 promised part of the 50₹ to the person they referred S&G if she saved using the product, and only 7 primary participants (2%) in T5 did so. In almost all these cases, the amount offered was 25₹.

We have no ready explanation for these seemingly contrarian findings, except to say that they do not support the idea that ancillary outcomes are impacted by treatment through the adoption of the savings product. Other transmission mechanisms seem to have been in action. One possibility is that the financial literacy content disseminated through T3 and T5 reached husbands who benefited from it in their own income generating activity. This increase in household income then led to a reduction on material concerns among wives. But since identifying these mechanisms was not the focus of our experiment, we did not collect the kind of data that would allow us to conclusively imply one interpretation or another.

8 Conclusion

We have tested whether the adoption of a savings commitment product was best encouraged via information or persuasion. We find consistent evidence indicating that persuasion works better than information on its own, and that information about the benefits of the product can reinforce persuasion. We find no evidence that persuasion leads to lower engagement with the savings product – quite the contrary. This provides reassurance that primary participants incentivized by the sign-up reward did not rely on misinformation or pressure to induce sign-up – if they had, secondary participants would likely have realized they signed up by mistake and would have recovered their deposit instead of engaging with the bonus interest program. Thus, concerns that persuasion might lead to misguided adoption were unfounded. Our findings suggest that while information dissemination can raise awareness, it may be less effective for adoption than previously assumed, especially in contexts requiring active encouragement.

We also found positive effects of the treatment on the decision autonomy and mobility of the female participants, and a reduction in their concerns about financial and health risk. These effects, however, are not mediated through an increase of their income or larger expenditures on durables: women's incomes do not increase – only male incomes do, a bit – and, if anything, expenditures on durables were lower at endline among treated participants.

These findings have strong policy implications in the sense that information interventions need not work in the way researchers normally assume. Adoption of a new product seems highest when social learning involves persuasion by others. While adoption out of persuasion raises the possibility of misinformation, social pressure, leading to mistakes, we did not find evidence of such processes in our data. Our findings should nonetheless invite caution in leveraging persuasion to induce adoption – e.g., by using high levels of incentivization for primary participants.

Our study offers several important implications. First, persuasion-based strategies may be especially effective in promoting financial products among populations with limited financial engagement. Second, while concerns about misinformation are reasonable, our findings indicate that incentivized persuasion can encourage beneficial financial behaviors without leading to misuse. This insight challenges the prevailing assumption that information alone is the primary driver of financial inclusion, suggesting that well-structured persuasion campaigns may achieve stronger outcomes. Finally, our results highlight the value of policy designs that leverage social interactions to advance financial inclusion, particularly for marginalized groups—such as women in rural communities—who may benefit from peer support in overcoming barriers to financial autonomy.

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ONLINE APPENDIX

A Administrative information

Our project poses minimal risk to participants. Our project has been reviewed primarily by Indian Institute of Technology Kanpur, Institutional Review Board (IRB). The data collection involves no more risk than is typical for standard household survey questions on savings, employment, and gender role attitudes. Care has been taken to minimize COVID-19 risks, including use of masks and sanitizers by enumerators and efforts to undertake interviews outdoors whenever possible.

Funding: The project is directed jointly by the Monash Centre for Development Economics and Sustainability (CDES) and the Indian Institute of Technology (IIT) Kanpur. The experiment is supported by Monash Business School (Islam and Tommasi) and International Growth Centre (IGC) (Islam, Fafchamps and Pakrashi).

Institutional Review Board (ethics approval): This study's protocols have been reviewed and approved by Institutional Ethic Committee (IRB) at the Indian Institute of Technology Kanpur (IRB Approval Number IITK/IEC/2019-20-II/17).

Declaration of interest: None.

B Limitations and Challenges

Here is a summary of the limitations and challenges identified before undertaking the experiment.

We conduct our analysis using mainly ITT parameters. Nevertheless, the intervention we consider consists of offering an innovative financial service. An important first step in our analysis is to describe the take-up in the different treatment and control groups for this service. We therefore examine in each treatment and control group the take-up for S&G.

There are other potential concerns that we considered and protected against in our design.

First, primary participants in $T3$ have no information about who the secondary participants are, whereas, by design, primary participants in $T4$ and $T5$ know about three secondary participants. To deal with this potential asymmetry, in our design we let primary participants in $T3$ villages know the names of three randomly selected secondary participants.

Second, having a pure access treatment $T2$ is important for us. Indeed, suppose we do not have it and we find an effect for $T3$, $T4$, and $T5$ compared to pure control $T1$. One could then argue that this effect arises just because we provided S&G. So, without $T2$ control households, we would be unable to disentangle the existence of the product from the mechanisms we are interested in.

Third, at baseline, we did not inform survey respondents that a stall would be set up, and we did not tell them that they could approach the people at the stall to get information about S&G since this would defeat the

information treatment.[20] We also instructed the people manning the stall not to answer questions or circulate information about the savings commitment product. The stall is there only to sign people up and verify their passbooks. In addition, those manning the stalls have been instructed to ask villagers' names first, to check whether the name is in the primary or secondary participant list, and only invite the person to sit down for sign-up if their name appears on the list.

Fourth, information on formal savings is collected at the endline on passbooks. If women in our sample have such passbooks, we will simply ask to see their passbooks. If they instead get monthly bank statements, we will ask to see the bank statements. Hence, there is no need for cooperation with the bank. Women in our sample must consent to show us their passbook or statement, which is required to participate in the experiment.

C Intervention posters

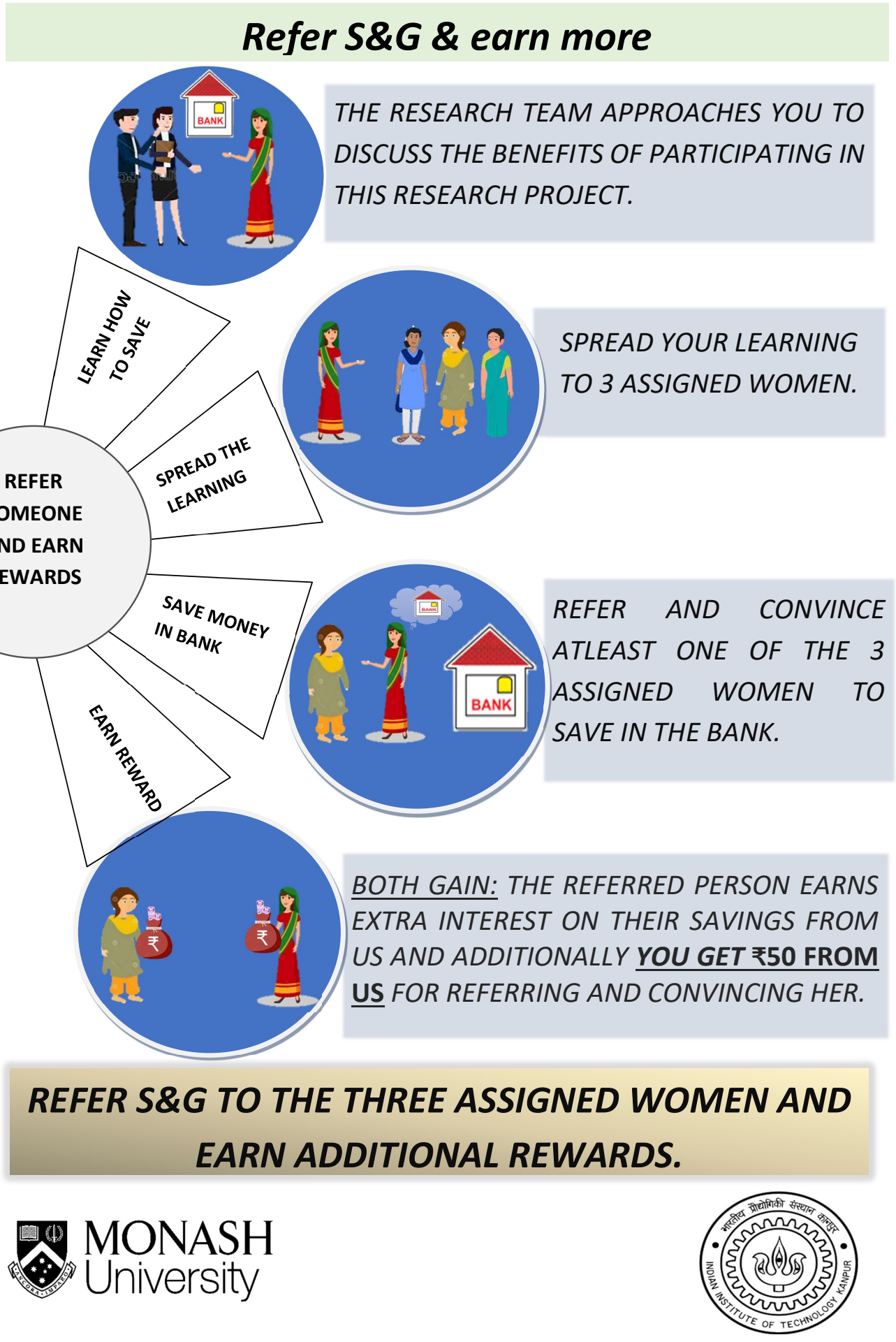
Figure C1: S&G poster

[20] Furthermore, once villagers realize stall enumerators only spoke to people with a card, they would simply pass the card to each other.

Figure C2: Awareness poster

Source: Reserve Bank of India training materials

Figure C3: Peer referral poster



D Summary statistics at baseline and balancing

Table D1: Full Sample

	(1) Mean	(2) Median	(3) S.D.	(4) Min	(5) Max
Demographics:					
Age of respondent	29.65	29.00	6.52	18	56
Education of respondent	8.78	10.00	4.21	0	20
Can read and write [0,1]	0.79	1.00	0.41	0	1
Years of marriage	8.73	8.00	6.53	0	50
Household size	5.32	5.00	1.79	1	28
Group A [0,1]	0.24	0.00	0.43	0	1
Age of husband	34.21	34.00	7.17	18	65
Education of husband	8.99	10.00	4.49	0	30
Income and assets:					
Housewife [0,1]	0.82	1.00	0.38	0	1
Income from labor of respondent (₹)	582	0	2309	0	40000
Own home [0,1]	0.96	1.00	0.20	0	1
Own farm [0,1]	0.64	1.00	0.48	0	1
Amount of farm land (Bigha)	3.15	2.00	6.29	0	250
Savings and borrowings:					
Have you ever visited a bank? [0,1]	0.92	1.00	0.27	0	1
Self-reported formal savings, last 6 months (₹)	2049	500	5053	0	50000
Self-reported informal savings, last 6 months (₹)	504	0	1113	0	12000
Self-reported formal borrowings, last 6 months (₹)	853	0	16756	0	500000
Self-reported informal borrowings, last 6 months (₹)	205	0	6838	0	500000
Deposit at least once a week [0,1]	0.06	0.00	0.24	0	1
Deposit at least once a month [0,1]	0.25	0.00	0.43	0	1
Deposit once every few months [0,1]	0.54	1.00	0.50	0	1
Deposit once a year [0,1]	0.15	0.00	0.35	0	1
Risk attitude (0: low risk; 10: high risk)	4.52	4.00	2.10	0	9
Treatment status:					
T1 [0, 1]	0.20	0.00	0.40	0	1
T2 [0, 1]	0.20	0.00	0.40	0	1
T3 [0, 1]	0.20	0.00	0.40	0	1
T4 [0, 1]	0.20	0.00	0.40	0	1
T5 [0, 1]	0.20	0.00	0.40	0	1
Villages	180				
Observations	5958				

Notes: The Table reports the mean, standard deviation, minimum and maximum values of the main variables used in the paper. There is a total of 5,958 women in our sample, living in 180 villages in Uttar Pradesh, India.

Table D2: Sample of Primary Participants

	(1) Mean	(2) Median	(3) S.D.	(4) Min	(5) Max
Demographics:					
Age of respondent	29.50	29.00	6.42	18	55
Education of respondent	8.99	10.00	4.02	0	20
Can read and write [0,1]	0.80	1.00	0.40	0	1
Years of marriage	8.61	8.00	6.48	0	40
Household size	5.37	5.00	1.93	2	27
Age of husband	34.21	34.00	7.21	21	65
Education of husband	9.04	10.00	4.44	0	17
Income and assets:					
Housewife [0,1]	0.82	1.00	0.39	0	1
Income from labor of respondent (₹)	597	0	2396	0	20000
Own home [0,1]	0.96	1.00	0.21	0	1
Own farm [0,1]	0.62	1.00	0.49	0	1
Amount of farm land (Bigha)	2.83	2.00	3.96	0	50
Savings and borrowings:					
Self-reported formal savings, last 6 months (₹)	1990	500	4955	0	50000
Self-reported informal savings, last 6 months (₹)	482	0	1104	0	10000
Self-reported formal borrowings, last 6 months (₹)	1357	0	23788	0	500000
Self-reported informal borrowings, last 6 months (₹)	113	0	1932	0	50000
Deposit at least once a week [0,1]	0.05	0.00	0.21	0	1
Deposit at least once a month [0,1]	0.24	0.00	0.43	0	1
Deposit once every few months [0,1]	0.55	1.00	0.50	0	1
Deposit once a year [0,1]	0.15	0.00	0.36	0	1
Risk attitude (0: low risk; 10: high risk)	4.50	4.00	2.09	0	9
Treatment status:					
T1 [0, 1]	0.20	0.00	0.40	0	1
T2 [0, 1]	0.20	0.00	0.40	0	1
T3 [0, 1]	0.20	0.00	0.40	0	1
T4 [0, 1]	0.20	0.00	0.40	0	1
T5 [0, 1]	0.20	0.00	0.40	0	1
Villages	180				
Observations	1415				

Notes: The Table reports the mean, standard deviation, minimum and maximum values of the main variables used in the paper. There is a total of 1,415 A primary participants in our sample, living in 180 villages in Uttar Pradesh, India.

Table D3: Sample of Secondary Participants

	(1) Mean	(2) Median	(3) S.D.	(4) Min	(5) Max
Demographics:					
Age of respondent	29.70	29.00	6.55	18	56
Education of respondent	8.72	10.00	4.26	0	20
Can read and write [0,1]	0.78	1.00	0.41	0	1
Years of marriage	8.77	8.00	6.54	0	50
Household size	5.30	5.00	1.74	1	28
Age of husband	34.21	34.00	7.16	18	65
Education of husband	8.97	10.00	4.51	0	30
Income and assets:					
Housewife [0,1]	0.83	1.00	0.38	0	1
Income from labor of respondent (₹)	578	0	2282	0	40000
Own home [0,1]	0.96	1.00	0.20	0	1
Own farm [0,1]	0.65	1.00	0.48	0	1
Amount of farm land (Bigha)	3.25	2.00	6.85	0	250
Savings and borrowings:					
Self-reported formal savings, last 6 months (₹)	2068	500	5084	0	50000
Self-reported informal savings, last 6 months (₹)	511	0	1115	0	12000
Self-reported formal borrowings, last 6 months (₹)	696	0	13855	0	500000
Self-reported informal borrowings, last 6 months (₹)	234	0	7756	0	500000
Deposit at least once a week [0,1]	0.06	0.00	0.25	0	1
Deposit at least once a month [0,1]	0.25	0.00	0.44	0	1
Deposit once every few months [0,1]	0.54	1.00	0.50	0	1
Deposit once a year [0,1]	0.14	0.00	0.35	0	1
Risk attitude (0: low risk; 10: high risk)	4.53	4.00	2.10	0	9
Treatment status:					
T1 [0, 1]	0.20	0.00	0.40	0	1
T2 [0, 1]	0.20	0.00	0.40	0	1
T3 [0, 1]	0.20	0.00	0.40	0	1
T4 [0, 1]	0.20	0.00	0.40	0	1
T5 [0, 1]	0.20	0.00	0.40	0	1
Villages	180				
Observations	4543				

Notes: The Table reports the mean, standard deviation, minimum and maximum values of the main variables used in the paper. There is a total of 4,543 B secondary participants in our sample, living in 180 villages in Uttar Pradesh, India.

Table D4: Balancing tests between treatments (1)

	(1) Formal saving	(2) Informal saving	(3) Borrowing bank	(4) Borrowing other	(5) Distance bank (min.)	(6) Distance bank (km)	(7) Pop. village	(8) HH village	(9) Wheat cultivated	(10) Own farm	(11) Farm amount
T2	77	-26	-695	72	-0.31	0.54	-41.30	-211.12	-0.06	-0.00	0.53*
	(111)	(46)	(606)	(73)	(0.99)	(0.92)	(256.66)	(235.52)	(0.09)	(0.02)	(0.29)
T3	-23	9	-393	90	-0.52	0.26	-117.82	-218.57	-0.05	-0.02	-0.10
	(112)	(46)	(645)	(93)	(0.89)	(0.81)	(261.40)	(247.86)	(0.10)	(0.02)	(0.16)
T4	-9	14	-332	463	-0.47	-0.29	-102.98	-195.55	0.08	-0.00	0.06
	(113)	(46)	(720)	(402)	(1.09)	(0.86)	(272.29)	(233.70)	(0.09)	(0.02)	(0.18)
T5	-24	-86*	862	182*	-0.77	0.12	-100.86	-224.52	0.03	0.01	0.26
	(100)	(45)	(926)	(107)	(0.93)	(0.88)	(246.91)	(233.20)	(0.10)	(0.02)	(0.21)
Strata FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean (Dep. Var.):	2049	504	853	205	22.48	3.97	976.59	229.28	0.72	0.64	3.15
SD (Dep. Var.):	5053	1113	16756	6838	14.79	3.94	1008.32	679.09	0.45	0.48	6.29
Clusters:	180	180	180	180	180	180	180	180	180	180	180
Observations:	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958
Adjusted R^2:	0.03	0.01	0.00	-0.00	0.17	0.20	0.32	0.10	0.16	0.00	0.00
Normalized difference between groups:											
T2-T1:	0.02	-0.02	-0.06	0.04	0.02	0.13	-0.02	-0.20	-0.12	0.00	0.07
T3-T1:	-0.00	0.01	-0.03	0.05	0.01	0.08	-0.05	-0.19	-0.12	-0.04	-0.01
T4-T1:	-0.00	0.01	-0.02	0.04	-0.04	-0.08	-0.07	-0.18	0.20	-0.00	0.01
T5-T1:	-0.01	-0.08	0.04	0.07	-0.02	0.05	-0.10	-0.22	0.06	0.02	0.05
T2-T3:	0.02	-0.03	-0.05	-0.01	0.01	0.07	0.05	-0.05	-0.00	0.05	0.08
T2-T4:	0.02	-0.04	-0.04	-0.04	0.06	0.22	0.08	-0.07	-0.32	0.00	0.07
T2-T5:	0.03	0.06	-0.08	-0.04	0.04	0.09	0.14	0.13	-0.19	-0.02	0.03
T3-T4:	0.00	-0.01	-0.01	-0.04	0.04	0.19	0.03	-0.02	-0.32	-0.04	-0.03
T3-T5:	0.01	0.09	-0.06	-0.03	0.03	0.03	0.09	0.20	-0.18	-0.07	-0.06
T4-T5:	0.01	0.10	-0.05	0.03	-0.01	-0.14	0.04	0.20	0.14	-0.02	-0.04

Notes: Dependent variables reported at the top of the table. Standard errors are clustered at village level. Observations are at the women level. In each specification, we control for strata fixed effects (FE). At the bottom of the table, we report balancing results in terms of normalized differences between groups. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table D5: Balancing tests between treatments (2)

	(1) Age	(2) Education	(3) HH size	(4) N. of sons	(5) N. of daughters	(6) Risk	(7) Women mobility	(8) Poverty	(9) Near market (km)	(10) Near grocery (km)	(11) District city (km)
T2	-0.52	0.15	0.09	-0.05	-0.03	-0.09	0.06	0.09	0.16	0.04	-1.60
	(0.39)	(0.20)	(0.07)	(0.04)	(0.04)	(0.11)	(0.09)	(4.54)	(0.73)	(0.74)	(3.64)
T3	-0.49	0.17	-0.03	-0.06	-0.02	-0.04	0.22**	3.87	0.70	0.46	-3.39
	(0.46)	(0.22)	(0.07)	(0.04)	(0.04)	(0.10)	(0.10)	(5.04)	(0.71)	(0.70)	(3.13)
T4	-0.24	0.08	-0.05	0.01	0.01	0.11	0.01	0.97	0.04	-0.20	-3.16
	(0.44)	(0.24)	(0.07)	(0.04)	(0.04)	(0.09)	(0.09)	(5.07)	(0.60)	(0.60)	(3.71)
T5	-0.50	0.22	-0.01	-0.05	-0.04	-0.01	0.05	-2.48	0.64	0.58	-3.45
	(0.43)	(0.20)	(0.07)	(0.04)	(0.04)	(0.10)	(0.09)	(4.86)	(0.63)	(0.67)	(3.31)
Strata FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean (Dep. Var.):	29.65	8.78	5.32	0.96	0.83	4.52	1.26	19.62	4.69	4.37	32.64
SD (Dep. Var.):	6.52	4.21	1.79	0.81	0.83	2.10	0.44	22.16	3.68	3.65	16.24
Clusters:	180	180	180	180	180	180	180	180	180	180	180
Observations:	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958
Adjusted R^2:	0.01	0.00	0.00	0.00	0.00	0.01	0.15	0.17	0.35	0.33	0.24
Normalized difference between groups:											
T2-T1:	-0.08	0.03	0.06	-0.06	-0.04	-0.04	0.15	-0.05	0.09	0.05	-0.08
T3-T1:	-0.08	0.04	-0.01	-0.08	-0.03	-0.01	0.50	0.12	0.25	0.17	-0.20
T4-T1:	-0.04	0.02	-0.03	0.01	0.01	0.05	0.01	0.05	0.00	-0.08	-0.18
T5-T1:	-0.08	0.05	-0.00	-0.07	-0.05	-0.00	0.13	-0.16	0.23	0.21	-0.23
T2-T3:	-0.00	-0.00	0.06	0.02	-0.01	-0.03	-0.35	-0.18	-0.13	-0.10	0.11
T2-T4:	-0.04	0.01	0.08	-0.07	-0.05	-0.09	0.14	-0.10	0.10	0.11	0.10
T2-T5:	0.00	-0.02	0.06	0.01	0.01	-0.03	0.02	0.11	-0.11	-0.13	0.14
T3-T4:	-0.04	0.02	0.02	-0.09	-0.04	-0.06	0.49	0.08	0.25	0.24	-0.00
T3-T5:	0.00	-0.01	-0.00	-0.01	0.02	-0.01	0.37	0.28	0.03	-0.04	0.04
T4-T5:	0.05	-0.03	-0.02	0.07	0.06	0.06	-0.12	0.20	-0.24	-0.29	0.04

Notes: Dependent variables reported at the top of the table. Standard errors are clustered at village level. Observations are at the women level. In each specification, we control for strata fixed effects (FE). At the bottom of the table, we report balancing results in terms of normalized differences between groups. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table D6: Balancing tests between A vs B participants (1)

	(1) Formal saving	(2) Informal saving	(3) Borrowing bank	(4) Borrowing other	(5) Distance bank (min.)	(6) Distance bank (km)	(7) Pop. village	(8) HH village	(9) Wheat cultivated	(10) Own farm	(11) Farm amount
T2	-76	-60	-1311	-119	1.64	0.02	-7.00	-6.38	-0.00	-0.02	-0.32
	(385)	(106)	(1566)	(79)	(1.36)	(0.04)	(8.61)	(7.34)	(0.00)	(0.04)	(0.57)
T3	458	-152	-544	124	0.58	-0.01	-4.69	-9.12	-0.01**	-0.04	0.52
	(519)	(115)	(1735)	(221)	(1.17)	(0.04)	(10.18)	(9.34)	(0.00)	(0.05)	(0.38)
T4	387	-96	919	-337	-0.32	0.01	0.25	-6.29	-0.01*	-0.05	0.46
	(462)	(115)	(2377)	(585)	(1.40)	(0.03)	(10.15)	(6.82)	(0.00)	(0.05)	(0.42)
T5	90	-89	-1123	-268**	0.28	-0.00	-7.68	-7.18	0.00	-0.00	0.17
	(433)	(104)	(2532)	(134)	(1.10)	(0.04)	(8.47)	(7.97)	(0.00)	(0.05)	(0.42)
Strata FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean (Dep. Var.):	2049	504	853	205	22.48	3.97	976.59	229.28	0.72	0.64	3.15
SD (Dep. Var.):	5053	1113	16756	6838	14.79	3.94	1008.32	679.09	0.45	0.48	6.29
Clusters:	180	180	180	180	180	180	180	180	180	180	180
Observations:	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958
Adjusted R^2:	0.03	0.01	0.00	-0.00	0.17	0.20	0.32	0.10	0.16	0.00	0.00
Normalized difference between groups:											
T2-T1:	-0.04	-0.03	-0.08	-0.11	0.07	0.14	-0.02	-0.20	-0.12	-0.03	-0.03
T3-T1:	0.03	-0.06	-0.00	0.08	0.01	0.09	-0.05	-0.19	-0.13	-0.12	-0.02
T4-T1:	0.02	-0.02	0.05	0.10	-0.09	-0.08	-0.07	-0.18	0.20	-0.08	-0.01
T5-T1:	-0.04	-0.11	0.03	-0.09	-0.04	0.05	-0.10	-0.22	0.07	0.01	-0.01
T2-T3:	-0.06	0.03	-0.10	-0.09	0.07	0.07	0.04	-0.05	0.01	0.09	-0.01
T2-T4:	-0.05	-0.01	-0.10	-0.11	0.16	0.22	0.07	-0.07	-0.32	0.05	-0.02
T2-T5:	-0.00	0.08	-0.08	-0.03	0.11	0.09	0.13	0.12	-0.19	-0.05	-0.02
T3-T4:	0.01	-0.05	-0.05	-0.01	0.09	0.19	0.03	-0.02	-0.33	-0.04	-0.02
T3-T5:	0.06	0.05	-0.04	0.09	0.04	0.03	0.09	0.19	-0.20	-0.14	-0.02
T4-T5:	0.05	0.10	0.01	0.11	-0.05	-0.14	0.04	0.20	0.13	-0.09	0.00

Notes: Dependent variables reported at the top of the table. Standard errors are clustered at village level. Observations are at the women level. In each specification, we control for strata fixed effects (FE). We also control for participant-in-group-A dummy variable, and for each treatment dummy A, I, P, and I+P. What is reported in the table is the coefficient attached to the interaction of each treatment dummy and the participant-in-group-A dummy. At the bottom of the table, we report balancing results in terms of normalized differences between groups. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table D7: Balancing tests between A vs B participants (2)

	(1) Age	(2) Education	(3) HH size	(4) N. of sons	(5) N. of daughters	(6) Risk	(7) Women mobility	(8) Poverty	(9) Near market (km)	(10) Near grocery (km)	(11) District city (km)
T2	-0.21	-0.60	-0.03	0.01	-0.03	-0.02	0.00	0.36*	-0.03	-0.02	0.04
	(0.54)	(0.40)	(0.15)	(0.08)	(0.08)	(0.20)	(0.00)	(0.21)	(0.02)	(0.02)	(0.13)
T3	-0.18	-0.24	-0.19	-0.01	-0.12	-0.01	-0.00	-0.04	-0.03	-0.02	0.18
	(0.63)	(0.42)	(0.15)	(0.07)	(0.07)	(0.19)	(0.00)	(0.26)	(0.03)	(0.03)	(0.14)
T4	0.05	0.00	-0.05	0.00	-0.03	0.32	0.00	0.05	-0.03	-0.00	-0.03
	(0.56)	(0.33)	(0.17)	(0.07)	(0.08)	(0.21)	(0.00)	(0.20)	(0.02)	(0.02)	(0.12)
T5	-0.26	0.32	-0.21	-0.02	-0.07	-0.05	0.00	0.14	-0.02	-0.01	-0.02
	(0.55)	(0.39)	(0.13)	(0.07)	(0.07)	(0.21)	(0.00)	(0.21)	(0.02)	(0.02)	(0.14)
Strata FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean (Dep. Var.):	29.65	8.78	5.32	0.96	0.83	4.52	1.26	19.62	4.69	4.37	32.64
SD (Dep. Var.):	6.52	4.21	1.79	0.81	0.83	2.10	0.44	22.16	3.68	3.65	16.24
Clusters:	180	180	180	180	180	180	180	180	180	180	180
Observations:	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958	5958
Adjusted R^2:	0.01	0.00	0.00	0.00	0.00	0.01	0.14	0.17	0.35	0.33	0.24
Normalized difference between groups:											
T2-T1:	-0.11	-0.01	0.11	-0.09	-0.03	-0.07	0.15	-0.05	0.09	0.05	-0.08
T3-T1:	-0.11	0.06	-0.02	-0.13	-0.11	-0.04	0.50	0.12	0.25	0.17	-0.20
T4-T1:	-0.04	0.09	0.02	-0.03	0.02	0.14	0.01	0.04	-0.00	-0.08	-0.18
T5-T1:	-0.12	0.18	-0.02	-0.12	-0.08	-0.05	0.13	-0.16	0.24	0.21	-0.23
T2-T3:	-0.01	-0.07	0.12	0.04	0.07	-0.03	-0.34	-0.17	-0.13	-0.10	0.11
T2-T4:	-0.08	-0.10	0.08	-0.06	-0.05	-0.21	0.14	-0.09	0.10	0.11	0.10
T2-T5:	0.01	-0.19	0.12	0.03	0.05	-0.02	0.02	0.12	-0.11	-0.13	0.14
T3-T4:	-0.07	-0.03	-0.04	-0.10	-0.12	-0.19	0.48	0.07	0.25	0.24	0.00
T3-T5:	0.01	-0.12	0.00	0.00	-0.02	0.00	0.36	0.28	0.03	-0.04	0.05
T4-T5:	0.09	-0.10	0.04	0.10	0.10	0.19	-0.12	0.20	-0.24	-0.29	0.04

Notes: Dependent variables reported at the top of the table. Standard errors are clustered at village level. Observations are at the women level. In each specification, we control for strata fixed effects (FE). We also control for participant-in-group-A dummy variable, and for each treatment dummy A, I, P, and I+P. What is reported in the table is the coefficient attached to the interaction of each treatment dummy and the participant-in-group-A dummy. At the bottom of the table, we report balancing results in terms of normalized differences between groups. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

E Power calculations

Here are the power calculations that were conducted before the experiment. For the purpose of estimating average treatment effects on take-up, our main variable of interest, our key parameters are as follows:

- $\alpha = 0.05$. This is standard type I error.
- $\kappa = 0.80$. This is standard power.
- $J = 35$. This is the number of clusters (villages) per treatment arm.
- $N_j = 24$. This is the average number of B participants in each cluster (village) j.
- $ICC = 0.02$. This is the intra-cluster correlation coefficient calculated using the baseline data.
- $R_1 = 0.10$. This is the proportion of the variance in participants' take-up explained by participant covariates in our baseline data.
- $R_2 = 0.03$. This is the proportion of the variance in participants' take-up explained by cluster (village) covariates in our baseline data.

With these parameters, our minimum detectable effect (MDE) is 0.15 standard deviation units. This number is smaller than the smallest effect size estimated in our pilot, which was carried out at the beginning of 2021 (for more details, see Appendix I). During the pilot, eligible participants were contacted by phone and offered S&G. Our effect sizes for B participants were 0.32 SD in the information treatment, 0.40 SD in the persuasion treatment, and 0.78 SD in the information + persuasion treatment. Although our intervention in the scaled-up experiment requires participants to keep their savings in the bank for longer than in the pilot (three months instead of one), it also relies on in-person team visits to each village, not phone calls. This ought to increase the effectiveness of the intervention. To be conservative about power, we need our intervention to have at least *half* of the smallest estimated treatment effect size in the pilot.

F Analysis of attrition

Table F8: Analysis of attrition: full sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total		No		Yes		Norm.
	Coef.	SE	Coef.	SE	Coef.	SE	Diff.
Demographics:							
Age of respondent	29.65	(0.14)	29.68	(0.14)	29.15	(0.37)	0.02
Education of respondent	8.78	(0.07)	8.77	(0.07)	8.96	(0.22)	-0.01
Can read and write [0,1]	0.79	(0.01)	0.79	(0.01)	0.80	(0.02)	-0.01
Years of marriage	8.73	(0.13)	8.76	(0.13)	8.19	(0.36)	0.02*
Household size	5.32	(0.02)	5.31	(0.02)	5.41	(0.10)	-0.01
Age of husband	34.21	(0.13)	34.19	(0.14)	34.54	(0.46)	-0.01
Education of husband	8.99	(0.07)	8.99	(0.07)	8.98	(0.25)	0.00
Income and assets:							
Own home [0,1]	0.96	(0.00)	0.96	(0.00)	0.95	(0.01)	0.01
Housewife [0,1]	0.82	(0.01)	0.83	(0.01)	0.80	(0.02)	0.01
Income from labor of respondent (₹)	582	(30)	597	(31)	316	(100)	0.03***
Own farm [0,1]	0.64	(0.01)	0.64	(0.01)	0.61	(0.03)	0.02
Amount of farm land (Bigha)	3.15	(0.08)	3.14	(0.08)	3.43	(0.47)	-0.01
Savings and borrowings:							
Have you ever visited a bank? [0,1]	0.92	(0.00)	0.92	(0.00)	0.93	(0.01)	-0.01
Self-reported formal savings, last 6 months (₹)	2049	(77)	2071	(81)	1656	(209)	0.02**
Self-reported informal savings, last 6 months (₹)	504	(16)	505	(17)	481	(65)	0.01
Self-reported formal borrowings, last 6 months (₹)	853	(225)	757	(203)	2551	(1728)	-0.03
Self-reported informal borrowings, last 6 months (₹)	205	(88)	215	(93)	27	(12)	0.01**
Deposits:							
Deposit at least once a week [0,1]	0.06	(0.00)	0.06	(0.00)	0.06	(0.01)	0.00
Deposit at least once a month [0,1]	0.25	(0.01)	0.25	(0.01)	0.26	(0.02)	-0.00
Deposit once every few months [0,1]	0.54	(0.01)	0.54	(0.01)	0.53	(0.03)	0.01
Deposit once a year [0,1]	0.15	(0.01)	0.14	(0.01)	0.16	(0.02)	-0.01
Risk attitude (0: low risk; 10: high risk)	4.52	(0.03)	4.53	(0.04)	4.44	(0.11)	0.01
Treatment status:							
T1 [0,1]	0.20	(0.03)	0.20	(0.03)	0.20	(0.04)	0.00
T2 [0,1]	0.20	(0.03)	0.20	(0.03)	0.21	(0.04)	-0.00
T3 [0,1]	0.20	(0.03)	0.20	(0.03)	0.18	(0.03)	0.01
T4 [0,1]	0.20	(0.03)	0.20	(0.03)	0.19	(0.03)	0.01
T5 [0,1]	0.20	(0.03)	0.20	(0.03)	0.23	(0.04)	-0.02*
Observations	5958		5642		316		
Clusters	180		180		151		

Notes: The Table presents the results from regressions of each variable listed on the left on an attrition dummy variable. Columns (1) and (2) report the mean and standard error for the total sample, columns (3) and (4) for the non-attrition group (No), and columns (5) and (6) for the attrition group (Yes). Column (7) reports the normalized difference between the attrition and non-attrition groups. Pairwise t-tests are conducted to compare the differences between the attrition and non-attrition groups, with significance levels: * p<0.1, ** p<0.05, *** p<0.01.

Table F9: Analysis of attrition: secondary participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total		No		Yes		Norm.
	Coef.	SE	Coef.	SE	Coef.	SE	Diff.
Demographics:							
Age of respondent	29.70	(0.15)	29.74	(0.15)	29.08	(0.37)	0.03*
Education of respondent	8.72	(0.08)	8.70	(0.08)	9.01	(0.23)	-0.02
Can read and write [0,1]	0.78	(0.01)	0.78	(0.01)	0.80	(0.02)	-0.01
Years of marriage	8.77	(0.14)	8.82	(0.14)	8.12	(0.37)	0.03*
Household size	5.30	(0.02)	5.30	(0.03)	5.37	(0.10)	-0.01
Age of husband	34.21	(0.14)	34.20	(0.15)	34.38	(0.47)	-0.01
Education of husband	8.97	(0.08)	8.97	(0.08)	8.96	(0.26)	0.00
Income and assets:							
Own home [0,1]	0.96	(0.00)	0.96	(0.00)	0.95	(0.01)	0.01
Housewife [0,1]	0.83	(0.01)	0.83	(0.01)	0.80	(0.02)	0.02
Income from labor of respondent (₹)	578	(36)	595	(37)	335	(107)	0.03**
Own farm [0,1]	0.65	(0.01)	0.65	(0.01)	0.60	(0.03)	0.03*
Amount of farm land (Bigha)	3.25	(0.10)	3.24	(0.11)	3.36	(0.49)	-0.00
Savings and borrowings:							
Have you ever visited a bank? [0,1]	0.92	(0.00)	0.92	(0.00)	0.93	(0.01)	-0.01
Self-reported formal savings, last 6 months (₹)	2068	(86)	2094	(91)	1691	(220)	0.02*
Self-reported informal savings, last 6 months (₹)	511	(17)	513	(18)	478	(65)	0.01
Self-reported formal borrowings, last 6 months (₹)	696	(202)	672	(211)	1027	(748)	-0.01
Self-reported informal borrowings, last 6 months (₹)	234	(114)	248	(122)	29	(12)	0.01*
Deposits:							
Deposit at least once a week [0,1]	0.06	(0.00)	0.07	(0.00)	0.05	(0.01)	0.01
Deposit at least once a month [0,1]	0.25	(0.01)	0.25	(0.01)	0.26	(0.03)	-0.01
Deposit once every few months [0,1]	0.54	(0.01)	0.54	(0.01)	0.52	(0.03)	0.01
Deposit once a year [0,1]	0.14	(0.01)	0.14	(0.01)	0.16	(0.02)	-0.02
Risk attitude (0: low risk; 10: high risk)	4.53	(0.04)	4.53	(0.04)	4.44	(0.12)	0.01
Treatment status:							
T1 [0,1]	0.20	(0.03)	0.20	(0.03)	0.16	(0.03)	0.03*
T2 [0,1]	0.20	(0.03)	0.20	(0.03)	0.21	(0.04)	-0.01
T3 [0,1]	0.20	(0.03)	0.20	(0.03)	0.19	(0.04)	0.01
T4 [0,1]	0.20	(0.03)	0.20	(0.03)	0.20	(0.04)	0.00
T5 [0,1]	0.20	(0.03)	0.20	(0.03)	0.24	(0.04)	-0.03**
Observations	4543		4245		298		
Clusters	180		180		147		

Notes: The Table presents the results from regressions of each variable listed on the left on an attrition dummy variable. Columns (1) and (2) report the mean and standard error for the total sample, columns (3) and (4) for the non-attrition group (No), and columns (5) and (6) for the attrition group (Yes). Column (7) reports the normalized difference between the attrition and non-attrition groups. Pairwise t-tests are conducted to compare the differences between the attrition and non-attrition groups, with significance levels: * p<0.1, ** p<0.05, *** p<0.01.

Table F10: Analysis of attrition: primary participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total		No		Yes		Norm.
	Coef.	SE	Coef.	SE	Coef.	SE	Diff.
Demographics:							
Age of respondent	29.50	(0.19)	29.49	(0.19)	30.22	(1.69)	-0.05
Education of respondent	8.99	(0.11)	9.00	(0.11)	8.11	(0.94)	0.10
Can read and write [0,1]	0.80	(0.01)	0.80	(0.01)	0.83	(0.08)	-0.04
Years of marriage	8.61	(0.19)	8.60	(0.19)	9.33	(1.60)	-0.05
Household size	5.37	(0.05)	5.37	(0.05)	5.94	(0.59)	-0.13
Age of husband	34.21	(0.21)	34.17	(0.21)	37.22	(2.13)	-0.20
Education of husband	9.04	(0.13)	9.04	(0.13)	9.33	(0.80)	-0.03
Income and assets:							
Own home [0,1]	0.96	(0.01)	0.96	(0.01)	0.89	(0.07)	0.14
Housewife [0,1]	0.82	(0.01)	0.82	(0.01)	0.83	(0.09)	-0.02
Income from labor of respondent (₹)	597	(63)	604	(63)	0	(0)	0.13***
Own farm [0,1]	0.62	(0.01)	0.62	(0.01)	0.72	(0.12)	-0.10
Amount of farm land (Bigha)	2.83	(0.10)	2.81	(0.11)	4.50	(1.22)	-0.19
Savings and borrowings:							
Have you ever visited a bank? [0,1]	0.91	(0.01)	0.91	(0.01)	1.00	(0.00)	-0.16***
Self-reported formal savings, last 6 months (₹)	1989	(136)	2001	(137)	1083	(544)	0.09*
Self-reported informal savings, last 6 months (₹)	482	(30)	481	(31)	539	(355)	-0.02
Self-reported formal borrowings, last 6 months (₹)	1357	(628)	1016	(530)	27778	(28306)	-0.27
Self-reported informal borrowings, last 6 months (₹)	113	(56)	115	(56)	0	(0)	0.03
Deposits:							
Deposit at least once a week [0,1]	0.05	(0.01)	0.05	(0.01)	0.11	(0.08)	-0.13
Deposit at least once a month [0,1]	0.24	(0.01)	0.24	(0.01)	0.17	(0.08)	0.09
Deposit once every few months [0,1]	0.55	(0.01)	0.55	(0.01)	0.61	(0.11)	-0.05
Deposit once a year [0,1]	0.15	(0.01)	0.15	(0.01)	0.11	(0.08)	0.06
Risk attitude (0: low risk; 10: high risk)	4.50	(0.06)	4.50	(0.06)	4.39	(0.36)	0.03
Treatment status:							
T1 [0,1]	0.20	(0.03)	0.19	(0.03)	0.83	(0.09)	-0.78***
T2 [0,1]	0.20	(0.03)	0.20	(0.03)	0.06	(0.06)	0.18**
T3 [0,1]	0.20	(0.03)	0.20	(0.03)	0.06	(0.06)	0.18**
T4 [0,1]	0.20	(0.03)	0.20	(0.03)	0.06	(0.06)	0.18**
T5 [0,1]	0.20	(0.03)	0.20	(0.03)	0.00	(0.00)	0.26***
Observations	1415		1397		18		
Clusters	180		180		15		

Notes: The Table presents the results from regressions of each variable listed on the left on an attrition dummy variable. Columns (1) and (2) report the mean and standard error for the total sample, columns (3) and (4) for the non-attrition group (No), and columns (5) and (6) for the attrition group (Yes). Column (7) reports the normalized difference between the attrition and non-attrition groups. Pairwise t-tests are conducted to compare the differences between the attrition and non-attrition groups, with significance levels: * p<0.1, ** p<0.05, *** p<0.01.

G Comparative Statics of the Model

In this section, we derive the comparative statics of our model to analyze how the principal's persuasion effort e responds to changes in the monetary reward τ and information. We present the underlying assumptions, state the main propositions with detailed proofs, and discuss the implications of these results.

G.1 Assumptions

Assumption 1: Cost Function $C(e|F)$.

(a) $C(e|F) > 0$ for all $e \geq 0$ and $F \in \{0,1\}$. (Non-negative cost of effort)

(b) $C'(e|F) > 0$ for all $e \geq 0$. (Positive marginal cost of effort)

(c) $C''(e|F) > 0$ for all $e \geq 0$. (Marginal cost is increasing)

(d) $C'(e|0) > C'(e|1) > 0$ for all $e \geq 0$. (Information reduces marginal cost)

(e) $C''(e|0) > C''(e|1) > 0$ for all $e \geq 0$. (Informed effort cost is lower)

Assumption 2: Persuasion Function $\widehat{\theta}(e)$.

(a) $\widehat{\theta}(e) \geq 0$ for all $e \geq 0$. (Non-negative return to effort)

(b) $\widehat{\theta}'(e) > 0$ for all $e \geq 0$. (Positive marginal return to effort)

(c) $\widehat{\theta}''(e) < 0$ for all $e \geq 0$. (Decreasing marginal return to effort)

Assumption 3: Agent's Reservation Utility $\widetilde{R}$.

(a) $\widetilde{R} \sim \text{Uniform}[0,1]$. (Uniformly distributed reservation utility)

G.2 Propositions

Proposition 1. ***Probability of Adoption:*** *The probability that the agent adopts action a is:*

$$\Pr(a|e) = E[U(a)], \quad \textit{for } E[U(a)] \in [0,1].$$

Proof. Given that $\widetilde{R}$ is uniformly distributed over $[0,1]$, the probability that the agent takes action a is:

$$\Pr(a|e) = \Pr\left(E[U(a)] \geq \widetilde{R}\right) = \int_0^{E[U(a)]} f_{\widetilde{R}}(r)\, dr = E[U(a)],$$

since $f_{\widetilde{R}}(r) = 1$ over the interval $[0,1]$. □

Proposition 2. ***Optimality Conditions for Persuasion Effort:*** *The principal's optimal persuasion effort e^* satisfies the following FOC and SOC:*

$$(\alpha+\tau)\lambda\widehat{\theta}'(e)-C'(e|F)=0 \quad \textit{(FOC)}$$
$$(\alpha+\tau)\lambda\widehat{\theta}''(e)-C''(e|F)<0 \quad \textit{(SOC)}$$

which ensure that e^* is an interior maximum.

Proof. The principal maximizes her expected utility:

$$\max_{e} \quad U(e)=(\alpha+\tau)\Pr(a|e)-C(e|F).$$

Differentiating $U(e)$ with respect to e yields the FOC:

$$\frac{dU(e)}{de}=(\alpha+\tau)\frac{d\Pr(a|e)}{de}-C'(e|F)=0.$$

From Proposition 1, $\Pr(a|e)=E[U(a)]=\lambda\widehat{\theta}(e)$. Therefore:

$$\frac{d\Pr(a|e)}{de}=\lambda\widehat{\theta}'(e).$$

Substituting back into the FOC:

$$(\alpha+\tau)\lambda\widehat{\theta}'(e)-C'(e|F)=0.$$

We note that $(\alpha+\tau)\geq 0$, $\lambda>0$, $\widehat{\theta}'(e)>0$ and $C'(e|F)>0$ by assumption, hence an interior solution is guaranteed to exist. For the SOC, we differentiate the FOC with respect to e:

$$\frac{d^2U(e)}{de^2}=(\alpha+\tau)\lambda\widehat{\theta}''(e)-C''(e|F).$$

We note that $\widehat{\theta}''(e)<0$ and $C''(e|F)>0$ by assumption. Hence the SOC is satisfied ensuring an interior maximum for e^*. □

Proposition 3. ***Effect of Monetary Reward on Persuasion Effort:*** *An increase in the monetary reward τ leads to a higher optimal persuasion effort e^* by the principal; that is,*

$$\frac{de^*}{d\tau}>0.$$

Proof. Let $\Phi(e,\tau)=(\alpha+\tau)\lambda\widehat{\theta}'(e)-C'(e|F)=0$ denote the FOC. Totally differentiating $\Phi(e,\tau)$ with respect to e and τ, we have:

$$\frac{\partial\Phi}{\partial e}de+\frac{\partial\Phi}{\partial\tau}d\tau=0.$$

Compute the partial derivatives:

$$\frac{\partial \Phi}{\partial e} = SOC, \quad \frac{\partial \Phi}{\partial \tau} = \lambda \widehat{\theta}'(e).$$

Substituting back and solving for $\frac{de}{d\tau}$:

$$\frac{de}{d\tau} = -\frac{\lambda \widehat{\theta}'(e)}{SOC} > 0.$$

□

Proposition 4. ***Effect of Information Provision on Persuasion Effort:*** *The optimal persuasion effort e^* is higher when the principal is informed ($F = 1$) compared to when uninformed ($F = 0$); that is,*

$$e^*(F = 1) > e^*(F = 0).$$

Proof. From the optimality condition (FOC) in Proposition 2:

$$(\alpha + \tau)\lambda \widehat{\theta}'(e^*) = C'(e^*|F).$$

We know from Assumption 1(d) that $C'(e|0) > C'(e|1)$ for all $e \geq 0$, meaning the marginal cost is lower when $F = 1$. For the same marginal benefit on the left-hand side, a lower marginal cost $C'(e|1)$ implies a higher optimal effort e^* when $F = 1$. Formally, since $C'(e|F)$ is increasing in e and higher in $F = 0$, the equality can only hold if $e^*(F = 1) > e^*(F = 0)$. Therefore $e^*(F = 1) > e^*(F = 0)$. □

Proposition 5. ***Effect on Probability of Adoption:*** *Higher persuasion effort e increases the probability of adoption $\Pr(a|e)$, and thus, an increase in τ or provision of information ($F = 1$) leads to a higher probability of the agent adopting action a.*

Proof. From Proposition 1, $\Pr(a|e) = E[U(a)]$, where $E[U(a)] = \lambda \widehat{\theta}(e)$. Since $\widehat{\theta}'(e) > 0$, we have:

$$\frac{d \Pr(a|e)}{de} = \lambda \widehat{\theta}'(e) > 0.$$

From Propositions 3 and 4, both τ and F positively affect e^*. Using the chain rule:

$$\frac{d \Pr(a|e)}{d\tau} = \frac{d \Pr(a|e)}{de} \cdot \frac{de}{d\tau} > 0,$$

and

$$\frac{\Delta \Pr(a|e)}{\Delta F} = \frac{d \Pr(a|e)}{de} \cdot (e^*(F = 1) - e^*(F = 0)) > 0.$$

Therefore, higher monetary incentives τ and information provision ($F = 1$) lead to increased persuasion effort e and a higher probability $\Pr(a|e)$ of the agent adopting action a. □

Remark 1. ***Ambiguity in the Relative Strength of Effects:*** *While both increasing the monetary reward τ and providing information ($F = 1$) lead to higher persuasion effort e^*, it is unclear without further specification of the model whether one effect is stronger than the other. The relative magnitudes depend on the specific functional forms of the cost function $C(e|F)$ and the persuasion function $\widehat{\theta}(e)$, as well as parameters like α and λ.*

G.3 Predictions

Based on the propositions above, we derive the following model predictions:

1. **Prediction 1:** *Increasing the monetary reward τ leads to higher persuasion effort e^* by the principal and, consequently, a higher probability of agent adoption* $\Pr(a|e^*)$. This is supported by Propositions 3 and 5.

2. **Prediction 2:** *Providing information to the principal ($F = 1$) reduces the marginal cost of persuasion effort, resulting in higher optimal effort e^* and a higher probability of agent adoption* $\Pr(a|e^*)$. This follows from Propositions 4 and 5.

3. **Prediction 3:** *The combined effect of increased monetary incentives and information provision yields the highest persuasion effort and adoption probability, due to their additive effects on increasing the marginal benefit and reducing the marginal cost of effort.*

4. **Prediction 4:** *Observing differences in adoption rates across different settings allows us to infer the relative importance of monetary incentives and information in influencing the principal's behavior.* This follows from Remark 1, highlighting the ambiguity in the relative strength of the effects without further empirical evidence.

H Main results

Table H1: Saving Outcomes at Endline for Secondary Participants

	(1) Total Mean/(SE)	(2) T1 or T2 Mean/(SE)	(3) T3 Mean/(SE)	(4) T4 Mean/(SE)	(5) T5 Mean/(SE)
Gross S&G deposits					
Unconditional mean (₹)	2418	2274	2347	2469	2734
	(45)	(59)	(102)	(85)	(126)
No deposits (%)	4.8%	11.1%	0.0%	0.4%	1.1%
	(0.79)	(1.61)	(0.00)	(0.26)	(1.07)
Mean if deposits (₹)	2539	2556	2347	2478	2763
	(42)	(42)	(102)	(84)	(123)
S&G deposits 3+ months					
Unconditional mean (₹)	229	3	10	293	845
	(29)	(1)	(3)	(42)	(69)
No such deposits (%)	92.6%	99.8%	98.6%	89.8%	74.7%
	(0.81)	(0.11)	(0.53)	(1.17)	(1.42)
Mean if such deposits (₹)	3081	1125	675	2866	3339
	(171)	(315)	(69)	(357)	(193)
Endline S&G balance					
Unconditional mean (₹)	11802	11228	10943	12412	13227
	(375)	(706)	(1125)	(154)	(393)
Zero final balance (%)	3.5%	8.7%	0.0%	0.0%	0.0%
	(0.64)	(1.38)	(0.00)	(0.00)	(0.00)
Mean if positive balance (₹)	12231	12299	10943	12412	13227
	(382)	(754)	(1125)	(154)	(393)

Notes: Based on information provided by secondary participants in the endline survey. Columns (1) to (5) present parameter estimates and associated standard errors for each of the treatment dummies in a regression of the left variable on treatment dummies and strata dummies. Reported standard errors are clustered at the village level. " Deposits made during project" refers to the total amount of money that participants deposited in the bank over the 6 months preceding the endline survey, regardless of whether they retained it on their account or not. "Deposits lasting 3+ Months" refers to deposits kept in the bank for at least 3 months. "Final balance at endline" refers to the total balance in the respondent's bank account at the end of the study period. Reported averages are for: the whole sample in Column 1; the control groups T1&T2 in Column 2; and for treatments T3, T4, and T5 in Columns 3, 4 and 5, respectively.

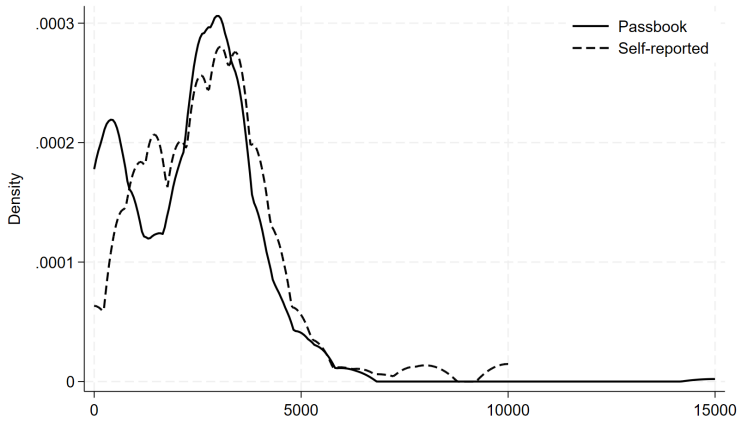
Table H2: Saving Outcomes at Endline for Primary Participants

	(1) Total Mean/(SE)	(2) T1 or T2 Mean/(SE)	(3) T3 Mean/(SE)	(4) T4 Mean/(SE)	(5) T5 Mean/(SE)
Gross S&G deposits					
Unconditional mean (₹)	2643	2364	2511	2807	3150
	(78)	(82)	(180)	(228)	(174)
No deposits (%)	3.4%	8.7%	0.0%	0.0%	0.0%
	(0.74)	(1.71)	(0.00)	(0.00)	(0.00)
Mean if deposits (₹)	2737	2591	2511	2807	3150
	(76)	(63)	(180)	(228)	(174)
S&G deposits 3+ months					
Unconditional mean (₹)	690	1	497	1131	1783
	(68)	(1)	(108)	(144)	(135)
No such deposits (%)	75.5%	99.4%	81.2%	56.7%	42.1%
	(2.00)	(0.31)	(2.10)	(3.43)	(3.18)
Mean if such deposits (₹)	2820	100	2653	2615	3077
	(196)	(0.0)	(500)	(388)	(238)
Endline S&G balance					
Unconditional mean (₹)	11707	10660	11231	12303	13624
	(560)	(927)	(1758)	(638)	(928)
Zero final balance (%)	2.7%	6.7%	0.0%	0.0%	0.0%
	(0.64)	(1.50)	(0.00)	(0.00)	(0.00)
Mean if positive balance (₹)	12026	11430	11231	12303	13624
	(563)	(957)	(1758)	(638)	(928)

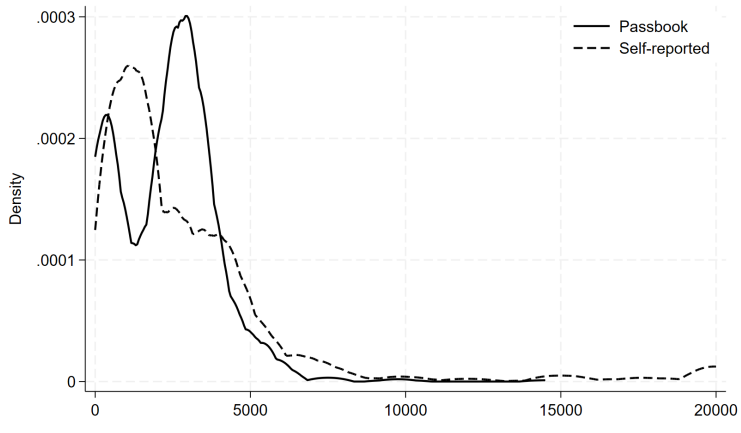
Notes: Based on information provided by primary participants in the endline survey. Columns (1) to (5) present parameter estimates and associated standard errors for each of the treatment dummies in a regression of the left variable on treatment dummies and strata dummies. Reported standard errors are clustered at the village level. " Deposits made during project" refers to the total amount of money that participants deposited in the bank over the 6 months preceding the endline survey, regardless of whether they retained it on their account or not. "Deposits lasting 3+ Months" refers to deposits kept in the bank for at least 3 months. "Final balance at endline" refers to the total balance in the respondent's bank account at the end of the study period. Reported averages are for: the whole sample in Column 1; the control groups T1&T2 in Column 2; and for treatments T3, T4, and T5 in Columns 3, 4 and 5, respectively.

Figure H1: Distribution of Gross S&G Deposits (₹) for Secondary Participants

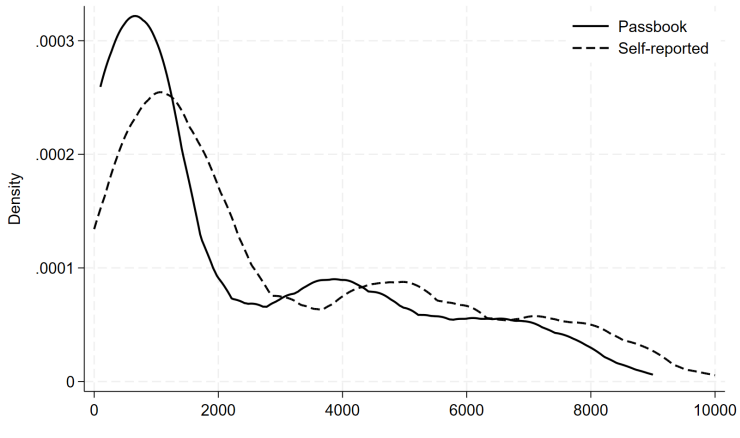
a) Control Group (T1)



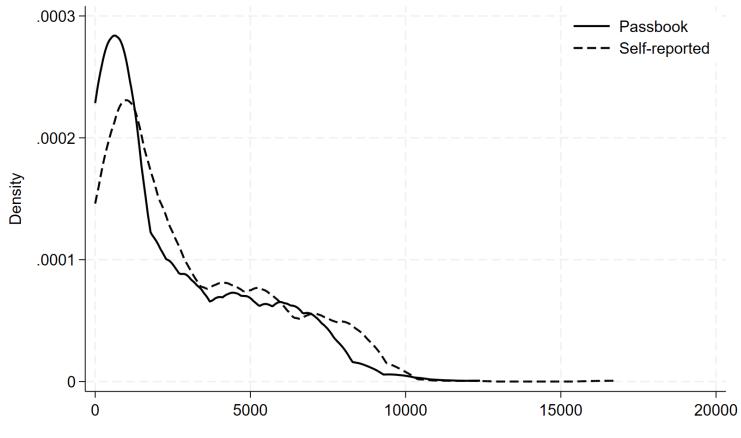
b) Access Group (T2)



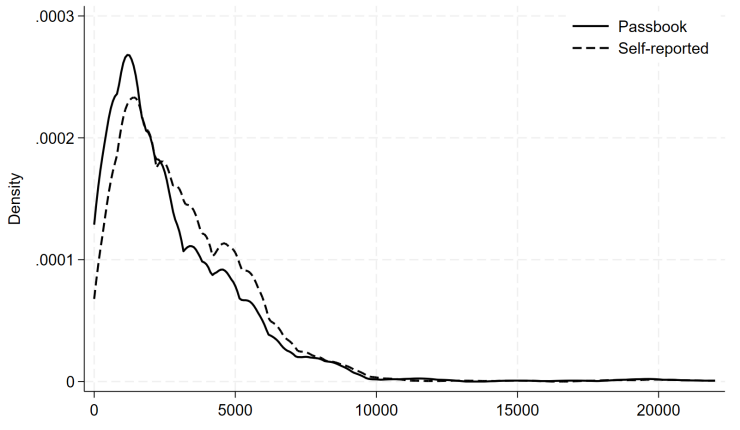
c) Information Group (T3)



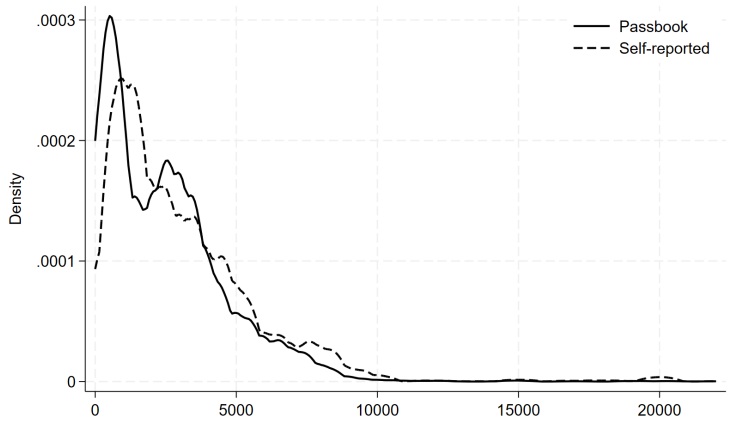
d) Persuasion Group (T4)



e) Information + Persuasion Group (T5)



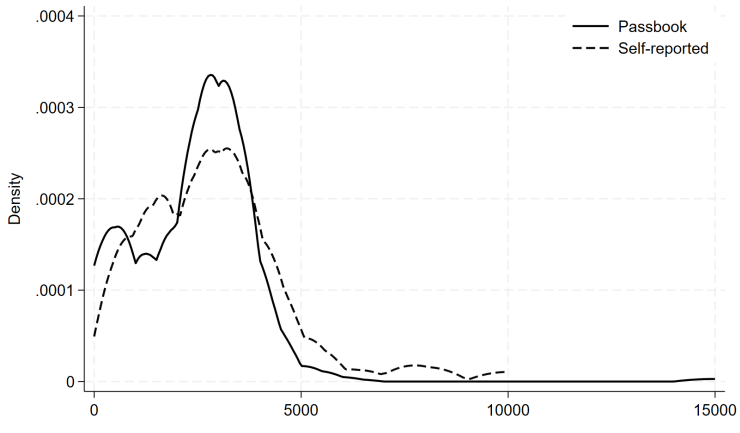
f) All Secondary Participants



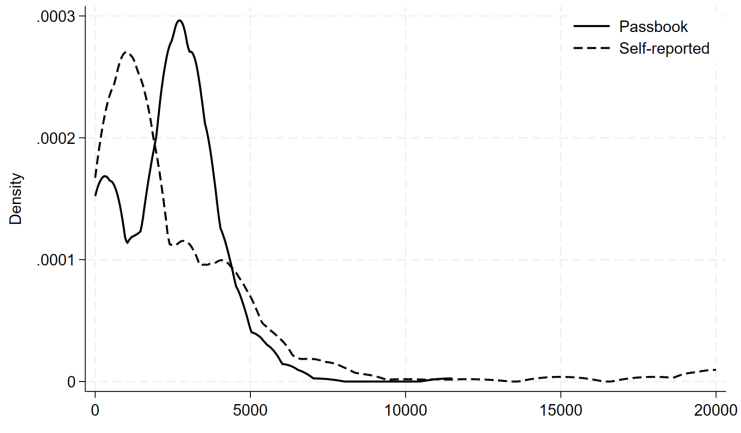
Notes: Data on secondary participants from endline survey. Distribution of Gross S&G Deposits in ₹ for each treatment group. Solid black lines present information recorded in passbooks. Dashed black lines present information self-reported by participants.

Figure H2: Distribution of Gross S&G Deposits (₹) for Primary Participants

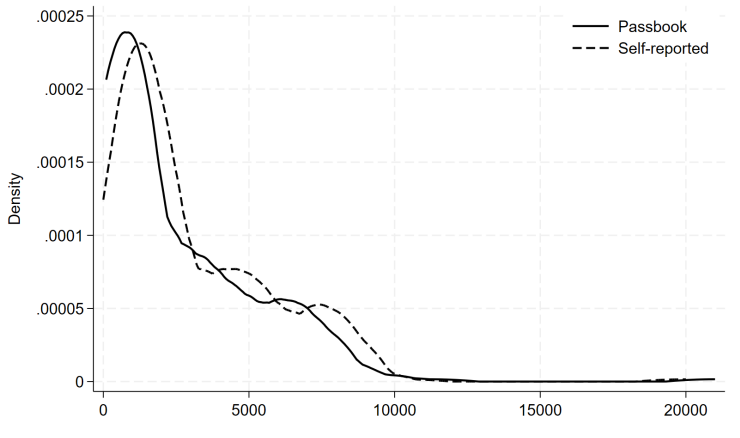
a) Control Group (T1)



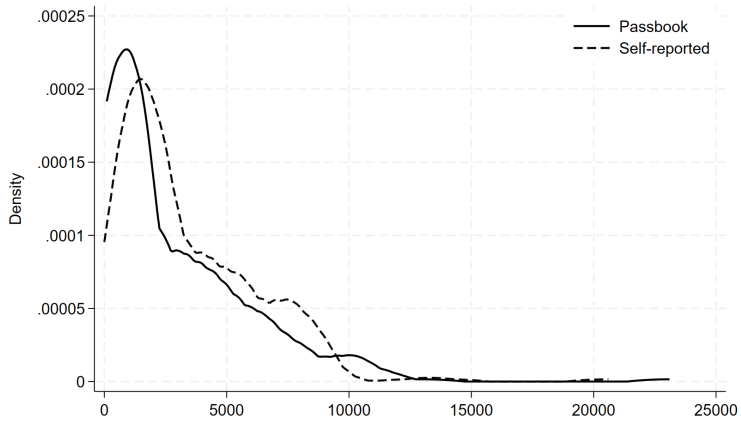
b) Access Group (T2)



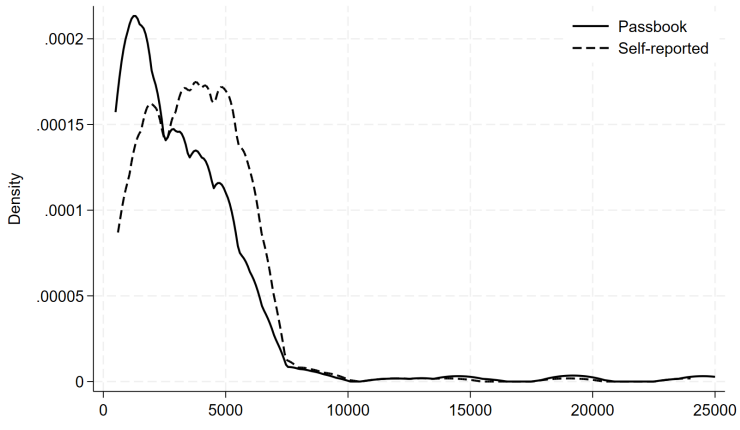
c) Information Group (T3)



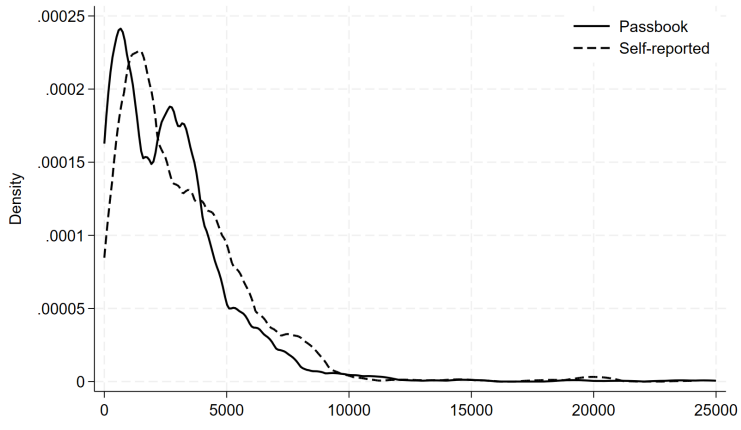
d) Persuasion Group (T4)



e) Information + Persuasion Group (T5)



f) All Primary Participants



Notes: Data on primary participants from endline survey. Distribution of Gross S&G Deposits in ₹for each treatment group. Solid black lines present information recorded in passbooks. Dashed black lines present information self-reported by participants.

Table H3: Treatment Effects on Main Outcomes for Primary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Panel A: Savings			
		Information From Passbooks				Self-Reported Information	
	Sign-up Rate [0,1]	Take-up Rate [0,1]	S&G deposits 3+ Months (₹)	Gross S&G Deposits (₹)	Endline S&G Balance (₹)	Formal Savings (₹)	Informal Savings (₹)
Information (T3)	0.36***	0.18***	490***	143	492	195	-227*
	(0.03)	(0.02)	(108)	(191)	(1988)	(216)	(136)
Persuasion (T4)	0.52***	0.43***	1134***	442*	1630	526***	-293**
	(0.04)	(0.03)	(139)	(235)	(1089)	(202)	(133)
Both (T5)	0.66***	0.58***	1783***	789***	2929**	1038***	-305***
	(0.03)	(0.03)	(128)	(190)	(1280)	(176)	(110)
Control mean:	0.01	0.00	3	2274	11228	2862	782
Clusters:	144	180	180	180	180	180	180
Observations:	1132	1397	1397	1397	1397	1397	1397
Adjusted R^2:	0.25	0.28	0.12	0.01	0.00	0.03	0.01
p-value T3-T4:	0.00	0.00	0.00	0.28	0.55	0.15	0.72
p-value T3-T5:	0.00	0.00	0.00	0.01	0.23	0.00	0.64
p-value T4-T5:	0.00	0.00	0.00	0.21	0.25	0.01	0.94
				Panel B: Knowledge about S&G			
	Received Information [0,1]	Aware S&G [0,1]	Where Deposit [0,1]	How long Deposit [0,1]	How much Deposit [0,1]	Max amount Deposit [0,1]	Total Score (2)-(6)
Information (T3)	.	1.00***	0.89***	0.97***	0.82***	0.91***	4.59***
	.	(0.00)	(0.02)	(0.02)	(0.03)	(0.02)	(0.04)
Persuasion (T4)	.	1.00***	0.76***	0.77***	0.77***	0.23***	3.52***
	.	(0.00)	(0.02)	(0.02)	(0.02)	(0.02)	(0.04)
Both (T5)	.	1.00***	0.95***	0.97***	0.98***	0.99***	4.89***
	.	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Control mean:	0.00	0.00	0.01	0.00	0.00	0.00	0.01
Clusters:	144	144	144	144	144	144	144
Observations:	1132	1132	1132	1132	1132	1132	1132
Adjusted R^2:	.	1.00	0.65	0.74	0.63	0.73	0.92
p-value T3-T4:	.	.	0.00	0.00	0.11	0.00	0.00
p-value T3-T5:	.	.	0.00	0.78	0.00	0.00	0.00
p-value T4-T5:	.	.	0.00	0.00	0.00	0.00	0.00
				Panel C: Knowledge about savings			
	Received information [0,1]	Savings lose value [0,1]	Beneficial why [0,4]	Bank services [0,4]	Bank savings options [0,4]	Interest rate [0,1]	Total Score (2)-(6)
Information (T3)	.	0.16***	0.58***	0.70***	0.60***	0.21***	2.27***
	.	(0.04)	(0.08)	(0.09)	(0.05)	(0.04)	(0.20)
Persuasion (T4)	.	-0.01	0.19**	0.10	-0.01	-0.00	0.25
	.	(0.04)	(0.07)	(0.09)	(0.05)	(0.03)	(0.17)
Both (T5)	.	0.24***	0.70***	0.72***	0.71***	0.21***	2.58***
	.	(0.04)	(0.08)	(0.08)	(0.06)	(0.03)	(0.20)
Control mean:	0.00	0.39	1.73	1.98	1.11	0.52	5.71
Clusters:	180	180	180	180	180	180	180
Observations:	1397	1397	1397	1397	1397	1397	1397
Adjusted R^2:	.	0.05	0.08	0.08	0.14	0.05	0.18
p-value T3-T4:	.	0.00	0.00	0.00	0.00	0.00	0.00
p-value T3-T5:	.	0.08	0.17	0.83	0.09	0.90	0.13
p-value T4-T5:	.	0.00	0.00	0.00	0.00	0.00	0.00

Notes: Data on primary participants from endline survey. The regression models are identical to those in Table **??**. The dependent variable appears on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All regressions include stratification dummies and pre-treatment savings, both formal and informal, as covariates. Panel A shows the results on savings outcomes. Panel B reports the findings on the awareness of our specific saving product S&G for all groups except the pure control group. Panel C displays the results on general savings knowledge. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table H4: Treatment Effects on Expenditure and Livestocks for Primary Participants

	(1) Expenditure 1 week (₹)	(2) Expenditure 1 month (₹)	(3) Expenditure 6 months (₹)	(4) Own Animals [0,1]	(5) Number Animals (count)
Information (T3)	-4	-63*	-986*	0.03	-0.04
	(55)	(36)	(529)	(0.04)	(0.18)
Persuasion (T4)	-5	-74**	-1315***	0.04	0.37**
	(64)	(29)	(465)	(0.03)	(0.15)
Both (T5)	81	-27	-1696***	-0.19***	-1.00***
	(70)	(56)	(379)	(0.03)	(0.12)
Control mean:	1296	3424	10600	0.79	2.34
Clusters:	180	180	180	180	180
Observations:	1397	1397	1397	1397	1397
Adjusted R^2:	-0.00	0.98	0.02	0.04	0.07
p-value T3-T4:	1.00	0.74	0.57	0.79	0.05
p-value T3-T5:	0.26	0.56	0.18	0.00	0.00
p-value T4-T5:	0.29	0.41	0.40	0.00	0.00

Notes: Data on primary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H5: Treatment Effects on Income, Empowerment, Health for Primary Participants

	(1)	(2)	(3)	(4)	(5)
	Panel A: Income and Empowerment				
	Household Income (₹)	Own Income (₹)	Husband Income (₹)	Decision Index [0,12]	Permission Index [0,7]
Information (T3)	321***	129**	188***	0.85***	0.35*
	(60)	(53)	(24)	(0.16)	(0.20)
Persuasion (T4)	-11	-5	-1	1.12***	2.92***
	(26)	(24)	(5)	(0.16)	(0.16)
Both (T5)	76**	-17	84***	0.87***	2.63***
	(29)	(29)	(14)	(0.12)	(0.16)
Control mean:	11944	631	11313	0.98	1.19
Clusters:	180	180	180	180	180
Observations:	1397	1397	1397	1397	1397
Adjusted R^2:	0.99	0.97	1.00	0.28	0.33
p-value T3-T4:	0.00	0.00	0.00	0.17	0.00
p-value T3-T5:	0.00	0.00	0.00	0.90	0.00
p-value T4-T5:	0.00	0.48	0.00	0.14	0.18
	Panel B: Health and Worries				
	General Health [0,5]	Worried General [1,10]	Worried Financial Situation [1,10]	Worried Food Security [1,10]	Worried Medical Treatment [1,10]
Information (T3)	-0.02	-0.90***	-1.04***	-0.91***	-0.74***
	(0.06)	(0.19)	(0.16)	(0.19)	(0.23)
Persuasion (T4)	-0.06	-0.33**	-0.56***	-0.32**	-0.15
	(0.05)	(0.14)	(0.14)	(0.15)	(0.15)
Both (T5)	-0.06	-0.93***	-1.22***	-1.17***	-1.08***
	(0.05)	(0.19)	(0.16)	(0.15)	(0.16)
Control mean:	3.74	6.11	5.48	6.01	6.31
Clusters:	180	180	180	180	180
Observations:	1397	1397	1397	1397	1397
Adjusted R^2:	-0.00	0.03	0.06	0.05	0.03
p-value T3-T4:	0.57	0.00	0.00	0.00	0.01
p-value T3-T5:	0.60	0.88	0.29	0.20	0.16
p-value T4-T5:	0.99	0.00	0.00	0.00	0.00

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H6: Robustness Analysis of Treatment Effects on Savings for Secondary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Panel A: Savings (No Trimming)				
		Information From Passbooks				Self-Reported Information	
	Sign-up S&G [0,1]	Take-up S&G [0,1]	S&G deposits 3+ Months (₹)	Gross S&G Deposits (₹)	Endline S&G Balance (₹)	Formal Savings (₹)	Informal Savings (₹)
Information (T3)	0.18***	0.01**	7	81	-241	117	-178
	(0.01)	(0.01)	(11)	(106)	(1254)	(131)	(151)
Persuasion (T4)	0.23***	0.10***	289***	193*	1152	141	-162**
	(0.01)	(0.01)	(40)	(101)	(731)	(126)	(81)
Both (T5)	0.36***	0.25***	842***	461***	1953**	288**	-203**
	(0.02)	(0.01)	(66)	(141)	(809)	(140)	(80)
Control mean:	0.01	0.00	3	2274	11228	2862	782
Clusters:	144	180	180	180	180	180	180
Observations:	3387	4245	4245	4245	4245	4245	4245
Adjusted R^2:	0.11	0.14	0.09	0.01	0.01	0.00	0.01
p-value T3-T4:	0.00	0.00	0.00	0.35	0.21	0.85	0.92
p-value T3-T5:	0.00	0.00	0.00	0.02	0.06	0.24	0.88
p-value T4-T5:	0.00	0.00	0.00	0.08	0.12	0.30	0.71
			Panel B: Savings (Top 1% Trimmed)				
		Information From Passbooks				Self-Reported Information	
Information (T3)	0.18***	0.01**	11	84	-236	119	-178
	(0.01)	(0.01)	(9)	(106)	(1251)	(131)	(151)
Persuasion (T4)	0.22***	0.09***	207***	123	1043	88	-163**
	(0.01)	(0.01)	(27)	(98)	(731)	(124)	(83)
Both (T5)	0.34***	0.23***	641***	309**	1674**	146	-192**
	(0.02)	(0.01)	(42)	(145)	(816)	(142)	(82)
Control mean:	0.01	0.00	3	2274	11228	2862	782
Clusters:	144	180	180	180	180	180	180
Observations:	3358	4216	4216	4216	4216	4216	4216
Adjusted R^2:	0.10	0.12	0.10	0.00	0.00	-0.00	0.01
p-value T3-T4:	0.01	0.00	0.00	0.74	0.24	0.81	0.93
p-value T3-T5:	0.00	0.00	0.00	0.16	0.10	0.86	0.94
p-value T4-T5:	0.00	0.00	0.00	0.23	0.23	0.68	0.80
			Panel C: Savings (Top 5% Trimmed)				
		Information From Passbooks				Self-Reported Information	
Information (T3)	0.18***	0.01**	8*	82	-224	118	-178
	(0.01)	(0.01)	(4)	(107)	(1248)	(131)	(151)
Persuasion (T4)	0.20***	0.06***	64***	22	664	50	-154*
	(0.01)	(0.01)	(12)	(99)	(729)	(126)	(84)
Both (T5)	0.28***	0.15***	214***	98	539	-24	-155*
	(0.02)	(0.01)	(20)	(157)	(826)	(152)	(89)
Control mean:	0.01	0.00	3	2274	11228	2862	782
Clusters:	144	180	180	180	180	180	180
Observations:	3247	4105	4105	4105	4105	4105	4105
Adjusted R^2:	0.07	0.07	0.08	0.00	0.00	-0.00	0.01
p-value T3-T4:	0.21	0.00	0.00	0.61	0.42	0.60	0.89
p-value T3-T5:	0.00	0.00	0.00	0.93	0.51	0.37	0.90
p-value T4-T5:	0.00	0.00	0.00	0.65	0.81	0.63	1.00

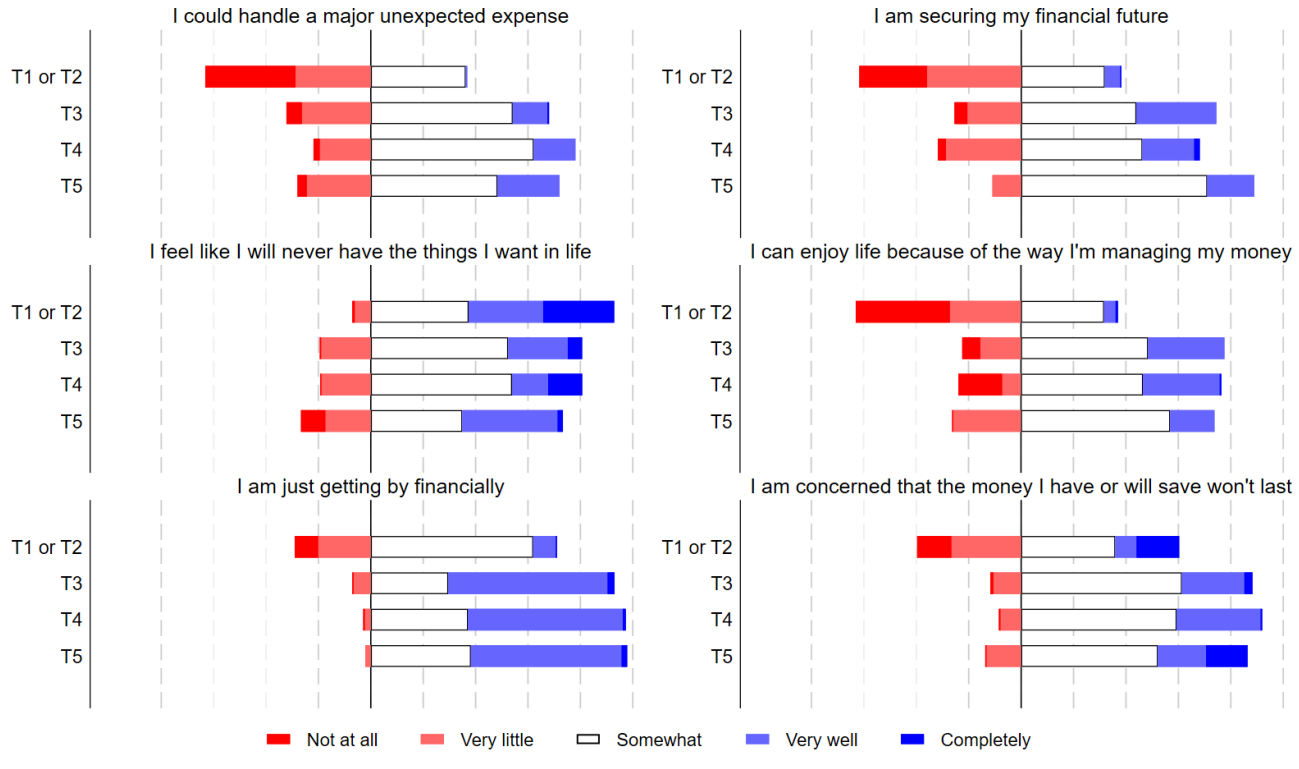
Notes: Data on secondary participants from endline survey. We merge the pure control group and the access group into one control group for all our regressions. The dependent variable appears on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All regressions include stratification dummies and pre-treatment savings, both formal and informal, as covariates. Panel A shows the results on savings outcomes. Panel B reports the findings on the awareness of our specific saving product S&G for all groups except the pure control group. Panel C displays the results on general savings knowledge. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H7: Robustness Analysis of Treatment Effects on Savings for Primary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Panel A: Savings (No Trimming)				
		Information From Passbooks				Self-Reported Information	
	Sign-up S&G [0,1]	Take-up S&G [0,1]	S&G deposits 3+ Months (₹)	Gross S&G Deposits (₹)	Endline S&G Balance (₹)	Formal Savings (₹)	Informal Savings (₹)
Information (T3)	0.36***	0.18***	490***	143	492	195	-227*
	(0.03)	(0.02)	(108)	(191)	(1988)	(216)	(136)
Persuasion (T4)	0.52***	0.43***	1134***	442*	1630	526***	-293**
	(0.04)	(0.03)	(139)	(235)	(1089)	(202)	(133)
Both (T5)	0.66***	0.58***	1783***	789***	2929**	1038***	-305***
	(0.03)	(0.03)	(128)	(190)	(1280)	(176)	(110)
Control mean:	0.01	0.01	1	2364	10660	2806	806
Clusters:	144	180	180	180	180	180	180
Observations:	1132	1397	1397	1397	1397	1397	1397
Adjusted R^2:	0.25	0.28	0.12	0.01	0.00	0.03	0.01
p-value T3-T4:	0.00	0.00	0.00	0.28	0.55	0.15	0.72
p-value T3-T5:	0.00	0.00	0.00	0.01	0.23	0.00	0.64
p-value T4-T5:	0.00	0.00	0.00	0.21	0.25	0.01	0.94
			Panel B: Savings (Top 1% Trimmed)				
		Information From Passbooks				Self-Reported Information	
Information (T3)	0.35***	0.17***	307***	-23	441	54	-230*
	(0.03)	(0.02)	(62)	(159)	(2016)	(193)	(136)
Persuasion (T4)	0.49***	0.40***	700***	23	1041	245	-295**
	(0.04)	(0.04)	(71)	(180)	(1070)	(187)	(138)
Both (T5)	0.65***	0.57***	1525***	562***	2384*	829***	-304***
	(0.03)	(0.03)	(95)	(175)	(1250)	(167)	(109)
Control mean:	0.01	0.01	1	2364	10660	2806	806
Clusters:	144	180	180	180	180	180	180
Observations:	1107	1372	1372	1372	1372	1372	1372
Adjusted R^2:	0.25	0.28	0.20	0.00	0.00	0.02	0.01
p-value T3-T4:	0.00	0.00	0.00	0.83	0.76	0.33	0.73
p-value T3-T5:	0.00	0.00	0.00	0.01	0.34	0.00	0.66
p-value T4-T5:	0.00	0.00	0.00	0.02	0.21	0.00	0.96
			Panel C: Savings (Top 5% Trimmed)				
		Information From Passbooks				Self-Reported Information	
Information (T3)	0.32***	0.13***	148***	-146	595	-2	-215
	(0.03)	(0.02)	(20)	(159)	(2068)	(197)	(139)
Persuasion (T4)	0.44***	0.32***	301***	-352*	-396	204	-266*
	(0.04)	(0.04)	(35)	(182)	(1087)	(195)	(154)
Both (T5)	0.55***	0.42***	466***	-62	-380	476**	-227*
	(0.04)	(0.04)	(53)	(220)	(1268)	(191)	(135)
Control mean:	0.01	0.01	1	2364	10660	2806	806
Clusters:	144	180	180	180	180	180	180
Observations:	996	1261	1261	1261	1261	1261	1261
Adjusted R^2:	0.20	0.20	0.16	-0.00	0.00	0.01	0.01
p-value T3-T4:	0.01	0.00	0.00	0.33	0.62	0.32	0.80
p-value T3-T5:	0.00	0.00	0.00	0.74	0.64	0.02	0.95
p-value T4-T5:	0.05	0.11	0.01	0.27	0.99	0.18	0.85

Notes: Data on primary participants from endline survey. We merge the pure control group and the access group into one control group for all our regressions. The dependent variable appears on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All regressions include stratification dummies and pre-treatment savings, both formal and informal, as covariates. Panel A shows the results on savings outcomes. Panel B reports the findings on the awareness of our specific saving product S&G for all groups except the pure control group. Panel C displays the results on general savings knowledge. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Figure H3: How well does this statement describe you or your situation? Full Sample



Notes: Data from endline survey. Bar plots depict the mean of the variable by treatment group. The data for primary and secondary participants have been combined due to the similarity in their responses.

Table H8: Robustness Analysis of Empowerment – Full Sample

	(1)	(2)	(3)	(4)
	Panel A: Secondary Participants			
	Index Decisions "Husband" [0,12]	Index Decisions "Both" [0,12]	Index Permissions "No" [0,7]	Index Permissions "Not alone" [0,7]
Information (T3)	-3.91***	2.79***	0.03	-0.51***
	(0.11)	(0.18)	(0.02)	(0.18)
Persuasion (T4)	-4.05***	2.90***	0.05***	-2.89***
	(0.11)	(0.17)	(0.01)	(0.09)
Both (T5)	-4.20***	2.76***	0.11***	-2.69***
	(0.10)	(0.16)	(0.02)	(0.12)
Control mean:	4.40	6.49	0.02	5.85
Clusters:	180	180	180	180
Observations:	4245	4245	4245	4245
Adjusted R^2:	0.50	0.26	0.02	0.33
p-value T3-T4:	0.07	0.49	0.43	0.00
p-value T3-T5:	0.00	0.85	0.00	0.00
p-value T4-T5:	0.01	0.33	0.00	0.14
	Panel B: Primary Participants			
	Index Decisions "Husband" [0,12]	Index Decisions "Both" [0,12]	Index Permissions "No" [0,7]	Index Permissions "Not alone" [0,7]
Information (T3)	-4.00***	3.14***	0.03**	-0.38*
	(0.16)	(0.24)	(0.01)	(0.21)
Persuasion (T4)	-3.92***	2.77***	0.05***	-2.96***
	(0.15)	(0.23)	(0.02)	(0.16)
Both (T5)	-3.98***	3.07***	0.08***	-2.72***
	(0.15)	(0.20)	(0.02)	(0.17)
Control mean:	4.35	6.66	0.01	5.81
Clusters:	180	180	180	180
Observations:	1397	1397	1397	1397
Adjusted R^2:	0.48	0.28	0.02	0.34
p-value T3-T4:	0.40	0.13	0.36	0.00
p-value T3-T5:	0.80	0.73	0.03	0.00
p-value T4-T5:	0.45	0.14	0.18	0.25

Notes: Data on secondary (primary) participants from endline survey in Panel A (B). The dependent variables appear on top. The "Decision Index" captures a participant's autonomy in decision-making. Participants were asked "Who is the main decision maker?" Column (1) reports the results on the sum of decisions made by the "husband," Column (2) the sum of decisions made by "both." The "Permission Index" measures a participant's freedom of movement. Participants indicated their usual permission to visit seven common locations. Column (3) reports the results on the sum of permissions that are not allowed, and Column (4) the sum of permissions that are allowed "not alone." We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H9: Expenditure 1 week among Secondary Participants

	(1)	(2)	(3)	(4)
	Food (₹)	Food away (₹)	Non-alcohol (₹)	Alcohol (₹)
Information (T3)	57	-33*	-12	-2
	(41)	(19)	(16)	(4)
Persuasion (T4)	39*	-12	-18	-3
	(21)	(13)	(16)	(4)
Both (T5)	1	-9	1	-4
	(20)	(11)	(14)	(5)
Control mean:	639	269	340	44
Clusters:	180	180	180	180
Observations:	4245	4245	4245	4245
Adjusted R^2:	0.01	0.00	0.00	0.00
p-value T3-T4:	0.68	0.30	0.77	0.87
p-value T3-T5:	0.20	0.20	0.46	0.72
p-value T4-T5:	0.10	0.83	0.28	0.82

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H10: Expenditure 1 month among Secondary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Energy (₹)	Cowdung (₹)	Rent (₹)	Bills (₹)	Travels (₹)	Mobile (₹)	Cigarettes (₹)	Recreation (₹)
Information (T3)	-6	-0	-9	-16	38	-17*	2	-27
	(19)	(1)	(23)	(22)	(34)	(10)	(8)	(47)
Persuasion (T4)	-17	0	-28	-9	16	-2	-0	9
	(15)	(1)	(19)	(34)	(33)	(9)	(8)	(41)
Both (T5)	-22	1	-48**	-2	81**	10	9	18
	(18)	(1)	(21)	(30)	(32)	(11)	(12)	(46)
Control mean:	365	2	140	832	869	336	199	736
Clusters:	180	180	180	180	180	180	180	180
Observations:	4245	4245	4245	4245	4245	4245	4245	4245
Adjusted R^2:	0.17	0.00	0.06	0.18	0.43	0.00	-0.00	0.66
p-value T3-T4:	0.52	0.34	0.39	0.82	0.58	0.16	0.79	0.48
p-value T3-T5:	0.43	0.19	0.10	0.64	0.28	0.04	0.63	0.42
p-value T4-T5:	0.77	0.47	0.30	0.86	0.10	0.34	0.48	0.86

Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H11: Expenditure 6 months among Secondary Participants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Furnitures (₹)	Clothes (boys) (₹)	Clothes (girls) (₹)	Clothes (males) (₹)	Clothes (females) (₹)	Education (₹)	Ceremonies (₹)	Doctor (₹)	Remittances (₹)
Information (T3)	12	-31	-44	13	-76	-50	-469***	81	3
	(159)	(60)	(68)	(31)	(84)	(99)	(41)	(52)	(31)
Persuasion (T4)	-31	-29	52	-14	-767***	0	-628***	58	7
	(86)	(67)	(65)	(36)	(48)	(51)	(24)	(42)	(35)
Both (T5)	-36	44	-48	15	-941***	-117	-616***	8	14
	(80)	(33)	(36)	(30)	(41)	(85)	(20)	(34)	(25)
Control mean:	1510	1104	1083	948	1348	2177	870	890	369
Clusters:	180	180	180	180	180	180	180	180	180
Observations:	4245	4245	4245	4245	4245	4245	4245	4245	4245
Adjusted R^2:	0.01	0.01	0.01	-0.00	0.16	-0.00	0.25	0.00	0.00
p-value T3-T4:	0.79	0.98	0.27	0.50	0.00	0.63	0.00	0.70	0.91
p-value T3-T5:	0.77	0.24	0.95	0.95	0.00	0.58	0.00	0.20	0.69
p-value T4-T5:	0.96	0.30	0.14	0.45	0.00	0.19	0.63	0.29	0.83

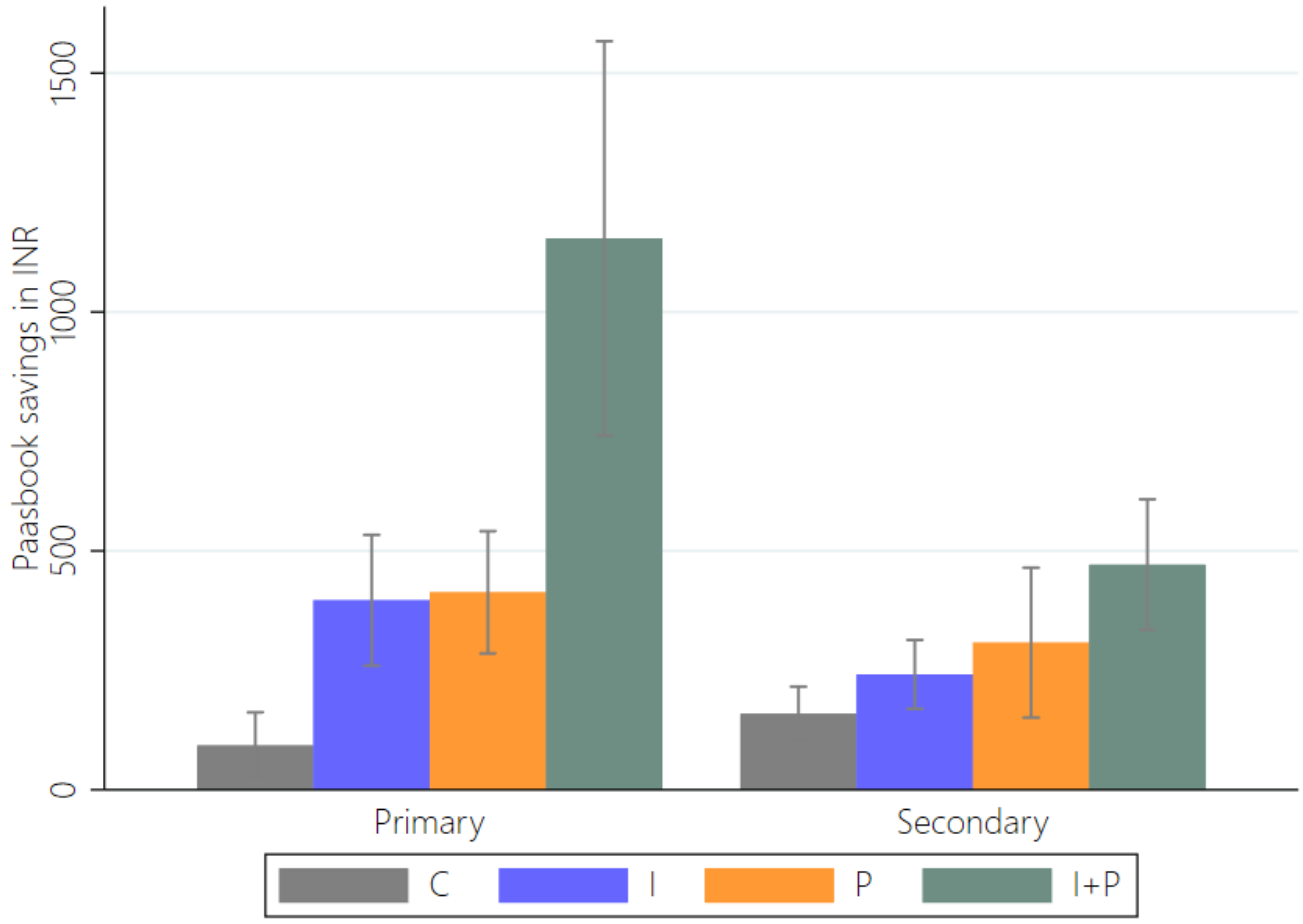
Notes: Data on secondary participants from endline survey. The dependent variables appear on top. We use three dummy variables to indicate the treatment groups: "Information (T3)" for the information-only treatment, "Persuasion (T4)" for the persuasion-only treatment, and "Both (T5)" for the combined treatment of information and persuasion. All OLS regressions include stratification dummies and pre-treatment value of the dependent variable as covariates. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

I Results from the pilot

The trial was piloted between September 2020 and January 2021 in 15 rural villages from the State of Bihar, India. Figure I2 provides a map of the areas that we covered in the pilot. We conducted the baseline in October 2020 with a randomly selected sample of 585 eligible women aged 18-40 years. Table I1 presents the summary statistics. After finalizing the intervention, we randomized the villages into one pure control (equivalent to T1 in the main RCT) and three treatment groups I, P, I+P (equivalent to T3, T4, and T5, respectively, in the main RCT). Table I2 shows that the groups were balanced. Finally, we ran the intervention during the first week of December 2020, and collected the endline in January 2021, one month after the intervention.

The pilot was designed exactly like the main trial, except that: (i) we randomized villages into four groups, not five; (ii) the implementation of the trial was conducted mostly on the phone, not in person, following the Covid-19 protocol that was in place at the time; and (iii) to receive the compensation of S&G (a higher interest rate compared to the market), eligible participants were encouraged to save via formal financial institutions for at least one month, not three months.[21] To estimate the effect of each treatment, we compare the outcomes – formal savings as stated on passbooks – of the three treatment groups with that of the control group. The pilot therefore essentially attempted to see how we could foster the adoption of our innovative financial product using information dissemination versus persuasion.

Figure I1: Mean savings in INR reported on passbooks at endline (last 1 month) by different groups: pilot sample

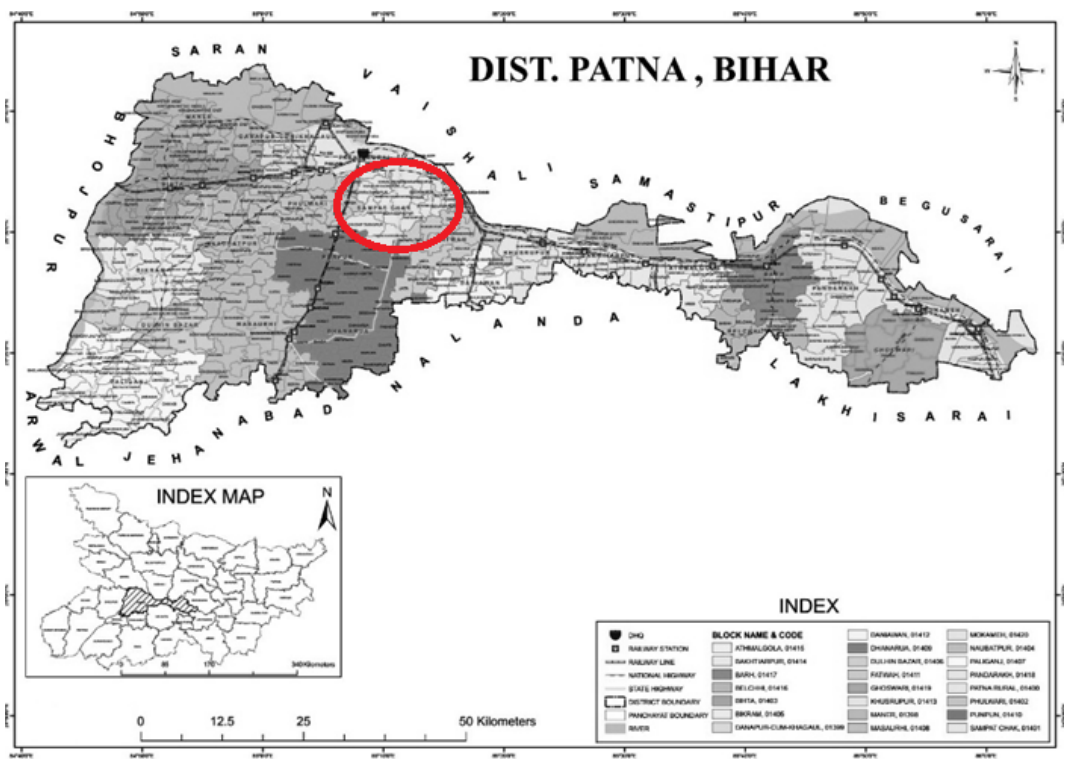


Notes: Mean savings in INR reported on passbooks at endline (last 1 month) by treatment group and type of participant.

[21] Differently from the presentation of the S&G financial product, and the different incentive schemes in I, P, and I+P groups, passbooks verification was conducted onsite by the enumerators at the endline. The team followed the Covid-19 protocol that was in place at the time.

The main results of the pilot are twofold. First of all, each of the treatments was effective at increasing savings in formal institutions among secondary participants. Figure I1 above shows that mean savings reported on the passbooks at endline increased by 241₹ in $T3$ group and 308₹ in $T4$ group, against 159₹ in the pure control group $T1$. Table I3 in the Appendix reports that the effect sizes, calculated using equation (4), were large – 0.32 SD for $T3$ and 0.40 SD for $T4$.[22] These effects, though significantly larger compared to the control group, were not significantly different from each other. Second, information dissemination and persuasion were more effective when applied together compared to when these interventions were considered separately. Specifically, formal savings increased by 471₹ in $T5$, which corresponds to 0.78 SD at endline.[23]

Figure I2: Area in Bihar included in the pilot



[22] The specification includes dummies for information villages (I group), persuasion villages (P group) or information and persuasion villages (I+P group), as well as the following set of covariates: self-reported formal savings at baseline, farm land ownerhip, amount of farm land, income from labor at baseline, family size, age, age squared, education level, literacy, caste, years of marriage and risk attitude. Standard errors are clustered at village level.

[23] We observe some formal savings in the bank also by the control group which is not driven by our intervention. On average, primary participants save 92₹ and secondary participants save 159₹. The difference is not statistically significant.

Table I1: Summary Statistics: pilot sample

	(1) Mean	(2) Median	(3) S.D.	(4) Min	(5) Max
Demographics:					
Age of respondent	31.43	32.00	5.68	19	40
Education of respondent	8.48	8.00	4.75	0	17
Literacy level	2.43	3.00	0.76	1	3
Years of marriage	8.20	9.00	5.26	0	19
Household size	7.46	7.00	3.34	3	18
Caste	3.04	4.00	1.22	1	4
Income and assets:					
Own farm [0,1]	0.31	0.00	0.46	0	1
Amount of farm land (Bigha)	3.59	0.00	5.66	0	20
Income from labor of respondent (₹)	239.56	200.00	354.23	0	6000
Savings and borrowings:					
Self-reported formal savings, last 6 months (₹)	1109.90	500.00	1223.15	0	15000
Passbook savings, last 1 month (₹)	1096.55	500.00	1336.22	0	14900
How often deposit money in the bank	2.94	3.00	0.70	1	4
Risk attitude [0: low risk; 10: high risk]	5.94	6.00	1.28	3	9
Treatment status:					
C [0,1]	0.28	0.00	0.45	0	1
I [0,1]	0.20	0.00	0.40	0	1
P [0,1]	0.26	0.00	0.44	0	1
I+P [0,1]	0.26	0.00	0.44	0	1
Villages	15				
Observations	586				

Notes: The Table reports the mean, median, standard deviation, minimum and maximum values of the main variables used in the paper. There is a total of 586 respondents interviewed at baseline, distributed in 15 villages.

Table I2: Balancing tests between treatments: pilot sample

	(1) Age	(2) Education	(3) Literacy	(4) Marriage	(5) Household size	(6) Caste	(7) Own farm	(8) Farm land	(9) Income
I (T1)	0.07	0.53	0.17	-0.02	0.71	-0.25	0.42	-43.53	0.20*
	(0.70)	(1.71)	(0.21)	(0.93)	(0.73)	(0.27)	(0.24)	(61.45)	(0.10)
P (T2)	-0.28	0.78	0.15	-0.57	0.89	-0.32	0.25	13.05	-0.04
	(0.87)	(1.68)	(0.14)	(1.02)	(0.66)	(0.26)	(0.30)	(91.83)	(0.09)
I+P (T3)	-2.19**	0.51	0.26	-1.86*	-0.00	-0.11	-0.01	-99.64*	0.32**
	(0.90)	(1.39)	(0.16)	(0.94)	(0.89)	(0.26)	(0.32)	(47.53)	(0.12)
Baseline savings	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean (Dep. Var.):	31.43	8.48	2.43	8.20	7.46	3.04	3.59	282.54	5.76
SD (Dep. Var.):	5.67	4.75	0.76	5.26	3.34	1.22	5.66	381.45	1.25
Clusters:	15	15	15	15	15	15	15	15	15
Observations:	586	586	586	586	586	586	586	586	586
Adjusted R^2:	0.02	0.16	0.20	0.03	0.22	0.04	0.89	0.30	0.13
Normalized difference between groups:									
T1-T0:	0.03	-0.00	0.09	0.04	0.34	-0.26	0.23	-0.00	0.71
T2-T0:	-0.05	0.17	0.21	-0.12	0.27	-0.24	0.10	-0.02	0.26
T3-T0:	-0.35	-0.01	0.20	-0.30	0.13	-0.15	0.17	-0.34	0.26
T2-T1:	-0.08	0.19	0.13	-0.17	-0.06	0.02	-0.12	-0.01	-0.45
T2-T3:	0.30	0.20	0.01	0.18	0.14	-0.09	-0.06	0.30	-0.00
T1-T3:	0.39	0.01	-0.12	0.35	0.20	-0.11	0.06	0.29	0.45

Notes: Dependent variables reported at the top of the table. Standard errors are clustered at village level. Observations are at the women level. In each specification, we control for baseline self-reported savings. At the bottom of the table, we report balancing results in terms of normalized differences between groups. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table I3: Effect sizes on savings reported on passbooks at endline (last 1 month): pilot sample

	(1) **A participants**	(2) **B participants**	(3) **All participants**
I (T1)	0.22	0.32*	0.27*
	(0.21)	(0.17)	(0.14)
P (T2)	0.43	0.40*	0.41**
	(0.25)	(0.19)	(0.16)
I+P (T3)	2.43***	0.78***	1.18***
	(0.52)	(0.19)	(0.14)
Covariates	✓	✓	✓
Baseline savings	✓	✓	✓
Clusters:	15	15	15
Observations:	144	441	585
Adjusted R^2:	0.325	0.099	0.137

Notes: Dependent variable: Savings as collected from passbooks in standardized mean difference (z-scores). Key variables: dummies for information villages (I group), persuasion villages (P group) or information and persuasion villages (I+P group). Covariates: self-reported formal savings at baseline, farm land ownerhip, amount of farm land, income from labor at baseline, family size, age, age squared, education level, literacy, caste, years of marriage and risk attitude. Standard errors are clustered at village level. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.