

TV, TEDx, and Tweets

Measuring the Impacts of a Multi-Pronged Edutainment Program in the Kyrgyz Republic and Tajikistan

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Abstract

The evidence so far is mixed as to whether educational entertainment (or “edutainment”) can create sustainable changes in financial attitudes and behaviors, and few studies have tested such hypotheses in Central Asia. This paper utilizes a genetic matching algorithm to estimate the impact of three edutainment interventions in the Kyrgyz Republic and Tajikistan: a television series, a TEDx-style in-person speaker event, and an interactive social media video. The study randomly selected 2,187 respondents from 14 cities across the two countries to participate. A random subset of respondents was sent text messages encouraging them to view the three edutainment interventions, which were also disseminated nationally in the respective countries. Using a midline survey conducted a few weeks after concluding the campaign in both countries, and an endline survey three months later, the study measured the immediate effects of the campaign as well as those that lasted into the medium term. The findings show that campaign consumption broad impacts in the form of account ownership, savings habits,

spending habits, and personal beliefs. Treated respondents were more likely to open accounts at formal financial institutions, especially e-wallets. Treated respondents also increased their savings balance using these formal accounts, and it was observed that these savings were sourced primarily from their informal savings balances. While some of these effects faded by endline, markers of account usage (for example, transactions and likelihood of saving) persisted even months after campaign consumption. Moreover, the study finds that campaign consumption led to increased awareness of the societal expectations responsible for women’s financial disenfranchisement and undesired financial behavior among youths. Generally speaking, however, the findings did not indicate a change in the degree of agreement with these norms as a result of the campaign. The study suggests that edutainment campaigns can be used to create lasting effects on measures of financial formalization and awareness of social norms.

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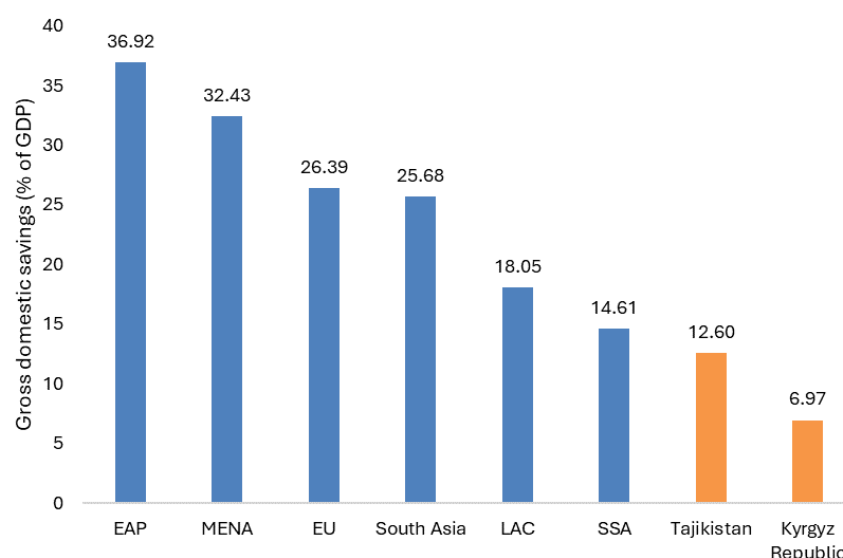
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1. Introduction

Access to financial intermediation and formal financial products and services remains a constraint to livelihood creation and economic growth in developing countries across the world. In addition to infrastructural and knowledge gaps, social norms and personal beliefs around financial management and participating in the formal financial sector play a big role in exacerbating these constraints. This challenge is acute in the Central Asian countries of Tajikistan and Kyrgyz Republic, where domestic savings are among the lowest in the world (Figure 1). According to World Bank Findex 2021 data, both countries fair very low in terms of account ownership, and women in general fair even worse than men, making them particularly vulnerable: 47 percent of women in the Kyrgyz Republic and 63 percent of women in Tajikistan do not have a bank account at a formal financial institution. Furthermore, the findings from a [social norms diagnostic conducted from 2020-2021](#) showed that approximately 39 and 23 percent of women, respectively, were saving money in secret; 22 percent of Kyrgyz women said they were not in charge of their spending, while 49 percent felt obliged to overspend on events and gifts due to social and cultural norms and mandates (Ogba, Strub, and Scarampi, 2022). A large proportion of the youth in the two countries (79 and 65 percent, respectively), reported never having tracked their expenses and a smaller number (15 and 16 percent) cited social pressure as a reason for overspending on new technology.

Figure 1. Savings rate by world region



Source: World Development Indicators (2024).

Existing studies have shown that changes in personal beliefs around finance can influence changes in financial behavior, and in the long term potentially impact the underlying norms ([Scarampi, Burjorjee, and Albashar \(2020\)](#) and [Markel et al. \(2016\)](#)). This pathway of change has drawn interest from governments, NGOs, international organizations, and even companies that wish to shape behavior to achieve their objectives. Educational entertainment, or “edutainment”, in particular, is an attractive way in developing countries to influence norms at scale in the face of practical difficulties such as budget and operational capacity ([Barsoum et al. \(2022\)](#)). Studies have been unclear whether edutainment content can achieve its desired objectives, and it also remains to be seen whether any changes in beliefs and behavior of those consuming the content last beyond a few weeks ([Coville et al. \(2019\)](#)). Moreover, very little of the available research on this topic has been done in Central Asia, where the states continue to have some form of media censorship, and authorities are adopting laws to regulate online activities.

Within this context, the IFC Central Asia Financial Inclusion Project collaborated with financial and private sector entities in Kyrgyz Republic and Tajikistan, including microfinance associations, telecoms and media production firms, to design and disseminate a three-pronged edutainment campaign consisting of a television series, in-person TEDx-style speaker events, and short-format social media videos (described in greater detail in the following section). The edutainment campaign was designed in a way to ensure that the three interventions worked together synergistically, mutually enhancing each other, such that the overall effect of all the interventions would be larger than the sum of the individual effects of each intervention.

As part of the project, the authors of this paper designed an impact evaluation to assess the effectiveness of the campaign in influencing changes in personal beliefs and behaviors around financial management, including account ownership and responsible saving and spending. The impact evaluation utilized an encouragement design, whereby one treatment arm, the “encouragement group”, would receive a series of encouragement messages to consume the content, and the other arm, the “non-encouragement group”, would receive no messages. To our knowledge, our study is the first randomized controlled trial measuring the effectiveness of nation-wide edutainment content to be conducted in Central Asia. This paper consequently presents the evaluation approach and the findings of the impact evaluation, focusing on key financially excluded demographics identified as a part of the previously conducted social norms diagnostic, namely women (age 30-49) and youth (age 18-29).

Our intention with this study was to present intent-to-treat effects. Because the implementing partner was mandated to promote the campaign nationwide in both countries, we faced a significant risk of control group contamination. At midline, however, it became clear that the take-up rates of the campaign between the encouragement and non-encouragement groups were significantly closer than expected. We followed [Buehren et al \(2024\)](#) and others by using the random assignment as an instrument for treatment (or consumption of the campaign); yet, the take-up rates were so close that the instruments failed even commonly accepted tests of validity. Faced with these challenges, our main results utilize genetic matching to create a control group against which to assess impact. In addition to the findings shared below, our paper thus serves as a use case for genetic matching when ordinary least squares (OLS) and instrumental variables (IV) are compromised by high control group take-up.

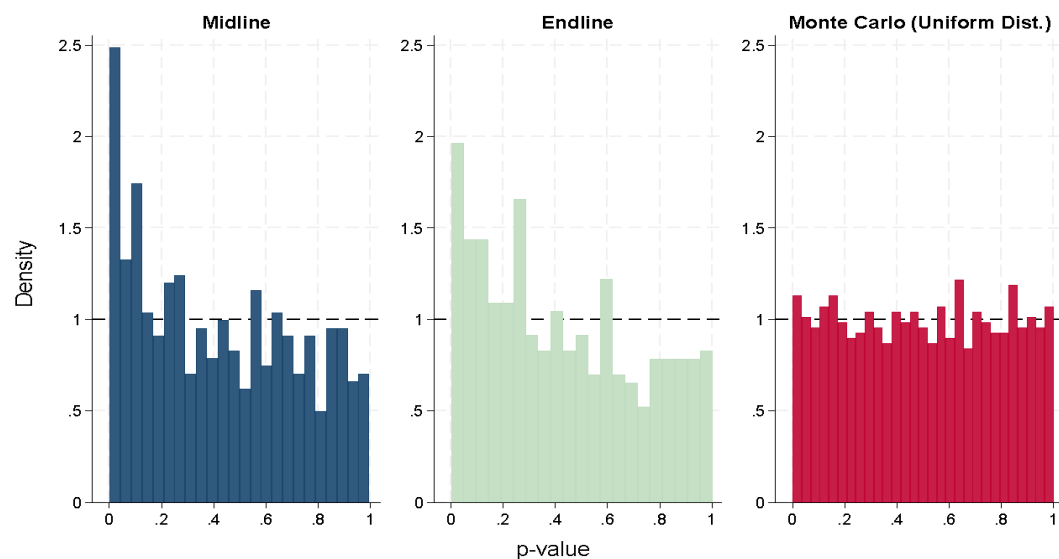
In choosing a matching method, there is a bias/ external validity tradeoff. Using matching for all independent variables allows reliable comparability across the entire sample size, but it generally results in a weaker balance across treatment and control groups, resulting in more bias/weaker claim to causality. We present genetic matching as our main results over other forms of matching because of the importance of credibly claiming causality. See Annex A1 describing the Theory of Change, the hypothesis, and the results that were observed during different survey iterations (i.e., midline and endline).

Our study follows a deep literature on measuring the effects of edutainment on beliefs and behaviors ([Smith and Viceisza \(2018\)](#), [Orozco-Olvera, Shen, and Cluver \(2019\)](#), [La Ferrara \(2016\)](#), [La Ferrara, Chong, and Duryea \(2012\)](#), [Olken \(2009\)](#), and [Jensen and Oster \(2009\)](#)). It is most closely related to studies like [Barsoum et al. \(2022\)](#), [Berg and Zia \(2017\)](#), [Bjorvatn et al. \(2019\)](#), and [Donati, Orozco-Olvera, and Rao \(2022\)](#) that utilize an encouragement design to measure impacts of mass media content. Moreover, our paper also contributes to research identifying scalable interventions that can alter financial beliefs and behavior (as done in the case of [Heitzig and O’Keeffe-O’Donovan, 2024](#)).

We find that the program had wide ranging impacts at midline (which took place within weeks of probable take-up) and persisted through endline (three months after midline and completion of the campaign). Figure 2 compares the distribution of p-values associated with our hypothesis tests at midline and endline with a distribution of p-values from a uniform Monte Carlo draw. That the distributions at midline and endline are skewed left reflect the lasting, significant impact of the campaign. More specifically, we find that campaign consumption spurred financial formalization. Campaign consumers were more likely to own formal accounts, particularly e-wallets, and increased their formal savings balances, and it was observed that these savings were sourced primarily from their informal savings balances. While these effects died out by

endline, we find that account usage persisted, especially the likelihood of holding formal savings and, in the case of Tajik respondents, account transactions. Moreover, we observe an increase in awareness among campaign consumers of social expectations that lead to women's financial disenfranchisement and youth's frivolous financial behavior. That said, we tend not to see campaign consumers agreeing more with society's expectations. Our study suggests that edutainment campaigns can be used to create lasting effects on financial formalization and on awareness of social norms. Refer to Annex A1 for a more detailed understanding of the campaign's theory of change, including the short-term outcomes and medium term impacts the evaluation hoped to assess.

Figure 2. Histogram of p-values comparing hypotheses tested at midline and endline with values randomly generated from a uniform distribution



The remainder of the paper is organized as follows. Section 2 offers background of the CAFINC project and the edutainment campaign. Section 3 outlines the methodology, explaining the issues with using OLS or IV, and specifies the details of the matching algorithm. Section 4 presents the results and average treatment effects using the matching sample. Section 5 concludes the report.

2. Background

Among the main objectives of the IFC Central Asia Financial Inclusion (CAFINC) project was to work at the market level to improve the financial capability of the populations in Kyrgyz Republic and Tajikistan. Women and youth form a large proportion of the financially excluded and often vulnerable groups in both countries. Existing financial literacy interventions were not achieving the expected financial inclusion gains due to deeply rooted social and cultural norms prevalent in the local communities.

Social norms play a significant role in shaping acceptable behaviors within a community. An individual's social identity, or their sense of belonging to a particular social group, holds emotional significance, and edutainment campaigns, unlike basic literacy campaigns, aim to drive social and behavioral change by influencing these emotional, cultural, and/ or faith-based social norms. To this end, the team designed and carried out a social norms diagnostic (refer to Annex A2 for details) to identify the social and cultural factors hindering the uptake and use of formal financial products and services by women and youth in Kyrgyz Republic and Tajikistan.

Using the findings, the team selected norms that were high impact and less sticky to inform the design of the edutainment campaign in both countries. The strength or stickiness of a social norm refers to the extent to which the social norm influences people's behavior, and how likely people are to follow/ not follow the social norm. Strength/ stickiness is usually a function of empirical expectations, normative expectations, and the severity of sanctions.

Edutainment as a tool to influence changes in financial attitudes and behaviors

The primary objective of the edutainment campaign under the CAFINC project was to influence financial behaviors and attitudes, and related social norms, that hindered individuals from engaging in the formal financial sector and managing their finances effectively. It intended to promote financial well-being by informing, motivating, and facilitating opportunities to prompt behavioral change. The target groups consisted of women and youth, from both rural and urban settings, of all marital statuses, and education levels. Attention was given to including those who had the capacity to plan and save money and were not entirely financially dependent on others.

The edutainment campaign was carried out via the following three interventions in each of the countries:

Table 1: Description of the various interventions carried out under the Edutainment campaign

Type of Intervention	Target Group	Key Messages	Dissemination
Social campaign	Women and Youth (2 per country, total 4 social campaigns)	Promote planning their finances and reducing spending based solely on the latest trends and social commitments	Social Media platforms, short ad broadcast on television channels
TV Series	Women and Youth (1 per country, total 2 TV series)	Promote savings for both men and women, encourage use of formal banks and digital financial services as safe, and useful means of savings for even low-income households. Additionally, these shows promote financial planning and management.	Aired during primetime on television. Also available in YouTube with Russian subtitles.

Money Talk Events	Women and Youth (5 per country, total 10 in-person events)	Promoted use of formal financial and digital tools for saving and financial management.	In-person events with speakers; also shared via social media platforms post the event
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The campaign material is available for viewing/ consumption on their respective social media handles (the original webpages that were created for the campaign have expired, since it has been a couple of years since its launch):

- Kyrgyz Republic (“Akcha” campaign)
 - Facebook: <https://www.facebook.com/akcha.asia>
 - YouTube: <https://www.youtube.com/watch?v=Y1eReLFARvo>
- Tajikistan (“Pul” campaign)
 - Facebook: <https://www.facebook.com/pul.tj>
 - YouTube: <https://www.youtube.com/watch?v=5RihRdXYJxE>

Edutainment is a strategic tool that harnesses the power of popular culture to educate and challenge conventional thinking while also providing a source of entertainment, with the aim to bring about individual and societal change. It tackles serious social issues and norms in a creative and informative manner, and is often combined with advocacy and on-the-ground programs to enhance its reach and effectiveness.

In the case of CAFINC, the team developed a comprehensive multi-pronged media campaign, employing various interventions and targeting different groups in the Kyrgyz Republic and Tajikistan. A deep understanding of the local context was essential, so the team relied on input and suggestions from the local counterparts and media production firms. Post the campaign implementation, the team wanted to assess its effectiveness in reaching the intended audience and influencing relevant attitudes and behaviors.

The evaluation aimed to identify both intended and unintended outcomes, and provide insights into which demographics were reached, and which were not. It also aimed to identify the most effective channels, media, and platforms for specific target groups. For example, did the women exposed to the campaign materials start utilizing formal financial institutions for savings? Did young people begin tracking their expenses and spending responsibly within their means for events and gifts? Follow-up evaluations can assess whether the campaign sparked broader discussions on the topic, leading to changes in overall norms, and consequently policies and regulations.

It is also important to acknowledge and report what worked well and what did not, to extract lessons learned and provide recommendations for future interventions. To ensure objectivity and credibility, an independent evaluation firm, MarketShare Associates, was hired to support data collection and analysis for this evaluation. This firm also helped carry out the initial social norms diagnostic, which was useful as they were already familiar with the context of the campaigns.

Table 2: Key terms used in the report

Key terms s	Description
Social norms	Expectations of behavior held by a collective group of people that governs social behavior
Personal beliefs	People’s individual beliefs/ preferences, independent of what others do or what is deemed to be appropriate
Normative expectations	People’s beliefs about “what others think should be done”
Sanctions	Positive or negative responses/ reactions by others to the behavior of an individual. It is the people’s anticipation of how others will respond in case of compliance (positive sanctions), or non-compliance (negative sanctions) often affects their behavior.

	E.g., of positive sanctions might include: smiling, patting on the shoulder or being granted higher status in the community E.g., of negative sanctions might include: scolding, gossiping, threats or physical aggression
Strength/'stickiness' of social norms	This refers to the extent to which social norms influence people's behaviour, and how likely people are to not follow the social norm. Strength/stickiness is usually a function of empirical expectations, normative expectations, and the severity of sanctions.
Prevalence of social norms	This refers to the extent to which a social norm is followed by the target population and enforced by the reference group.
Influencers	The "others" or the "the collective group" whose behavior and opinions matter in shaping a person's own behaviour. For some behaviours, the boundaries of reference groups are distinctly defined, such as "men", "working women", and "mothers-in-law". For norms that operate at the level of society or culture, the notion of reference group may be less relevant as the reference group tends to be society as a whole, or the "community".
Relaxation of social norms	As social norms are in continuous evolution, relaxation refers to when social norms become weaker and have less an influence on people's behaviour.

3. Methodology

3.1 Sampling

The sampling strategy focused on two target groups across both countries: 1) Women, age 30-49 in Kyrgyz Republic and Tajikistan; and 2) Youth, age 18-29 (both men and women) in Kyrgyz Republic and Tajikistan. The study participants were selected using stratified random sampling¹ and were subsequently screened for demographic criteria, ownership of phone, and consent to participate in the impact assessment. The target sample for each country was 1,100 respondents, 550 of each demographic (women and youth). We conduct three rounds of surveying: a baseline survey and two follow-up surveys (Figure 3). The first follow-up, or midline survey, was conducted immediately after the main thrust of the edutainment campaign in both countries, when respondents were most likely to have consumed the various interventions. The second follow-up, hereafter the "endline survey", was conducted three months after the primary thrust of the interventions to measure the campaigns' more lasting effects. All three rounds of surveying were phone-based surveys, in part to reduce the spread of COVID-19. Both the treatment and control group were paid a small sum of money that escalated with each round of surveying. In Kyrgyz Republic, the respondents were paid \$1, \$1.5, and \$2 across the baseline, midline and endline surveys; and in Tajikistan, the respondents were paid \$1.2, \$1.5, and \$2 respectively across the three iterations. In total, we interviewed 2,187 respondents at baseline across the two countries, 1,366 respondents at midline, and 898 respondents at endline (Table 3). The evaluation did not directly survey influencers. But it asked the target groups about their perception of influencers, to understand if changes have occurred in attitudes among these groups. For example, if a beneficiary decides to save and plan her/his finances but her/his community/family do not support it, it will not be interpreted as "no impact" but rather that the beneficiary made changes (i.e. there was impact on target group), but they continue to experience resistance from the community/ family (i.e. this did not happen with support from influencer groups).

¹ The survey firm conducts quarterly, nationally representative polls in both Kyrgyz Republic and Tajikistan from which we drew the random sample, stratified by demographics.

Figure 3: Edutainment Campaign Survey Methodology

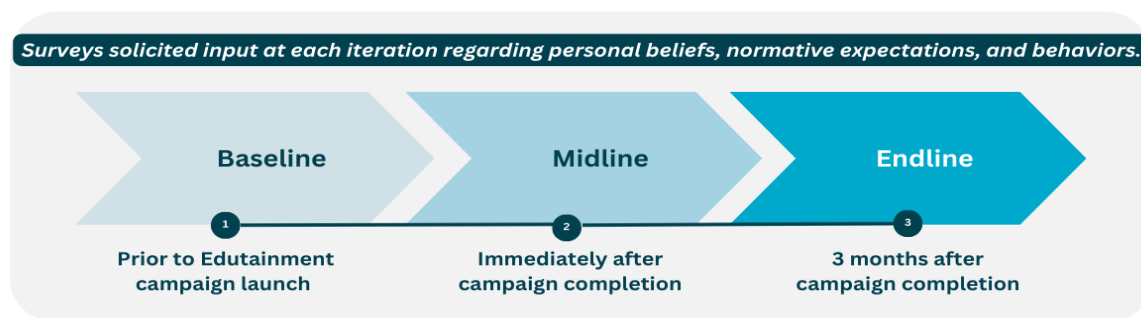


Table 3: Desired and realized sample size for baseline, midline, and endline surveys

Country		Baseline	Midline	Endline
Kyrgyz Republic	Target	1,100	800	500
	Actual	1,124	599	407
Republic of Tajikistan	Target	1,100	800	500
	Actual	1,063	767	491
Total (both countries)	Target	2,200	1,600	1,000
	Actual	2,187	1,366	898

Attrition at midline was 37.5 percent, and at endline it was 58.9 percent. The rate of attrition did not vary by treatment arm (further details provided in the next section and Table A1). According to the data collected by the survey firm, the reasons behind this relatively high attrition included i) concerns regarding sharing personal data on income and expenditure multiple times over time; ii) respondents changing phone numbers or not having enough phone credit; and/or iii) respondents losing interest in participating in the study over time.

To maximize baseline balance across the treatment arms, we utilized matched randomized sampling across baseline covariates like gender, household size, age, and others. The sample was matched in groups of three, with two members of the triad assigned to treatment and one to control. Baseline balance tests confirm that our sample is balanced across the treatment arms in all outcomes of interest.

Encouragement Design

Seventy percent of the total baseline sample of 1,100 people in each of the countries were allocated to the encouragement (treatment) group. Allocation to encouragement was stratified by country and by demographic. The treatment groups received 5 encouragement messages for the three different interventions: the TV series, the in-person “Money Talk” events, and the social campaigns.

The encouragement group received these messages using one (and only one) messaging application (i.e., either WhatsApp, Telegram, or Viber) according to the preferences indicated in the baseline and screening questionnaires. The survey company hired (M-Vector) sent and monitored the read receipts. The midline and endline surveys included extra questions to assess the respondents’ consumption of the 3 campaign interventions.

This approach helped gauge the overall impact of the campaign as well as the marginal impacts of each type of intervention. A linear regression was used to assess the causal impact of the assignment to encouragement. The

causal impact of having consumed the content was uncovered using matching, and the matching model measured the coefficient on some variation of three questions:

1. Did the respondent watch the TV series?
2. Did the respondent watch the in-person “Money Talk” event?
3. Did the respondent view both messages promoting the social media campaign?

Based on power calculations, assigning 70 percent of the baseline sample (i.e., 770 respondents per country) to the treatment group (i.e., to receive the encouragement) helped us maximize the number of respondents in our sample that ultimately consume the campaign interventions (i.e., the TV series/ in-person events/ social campaigns) while maintaining significant sample size.

The 770 respondents were stratified equally into two groups (i.e., 385 recipients in each group) women aged between 30-49 years and youth aged between 18-29 years, respectively. Thirty percent of all respondents (330 from each country) were assigned to the control (non-encouraged) group.

Table 4: Dissemination Plan for Encouragement messages in both countries

	Type of Encouragement	Recipients	Timeline for sending encouragement
1.	1 st encouragement for TV series	- 385 Women aged 30-49 years - 385 Youth aged 18-29 years	First week of October 2022
2.	2 nd encouragement for TV series	- 385 Women aged 30-49 years - 385 Youth aged 18-29 years	First week of November 2022
3.	Encouragement for Women Social Campaign	- 385 Women aged 30-49 years	Mid-October 2022
4.	Encouragement for Youth Social Campaign	- 385 Youth aged 18-29 years	Mid-November 2022
5.	Encouragement for in-person “Money Talk” Event	- 385 Women aged 30-49 years - 385 Youth aged 18-29 years	Last week of November 2022

3.2 Identification strategy

Endemic traits associated with those who ultimately consume the edutainment campaign are a potential source of endogeneity. To induce random exposure to the campaign and selection bias, we implemented a randomized controlled trial consisting of nearly 2,200 respondents, two-thirds of whom were assigned to a treatment group, or an “encouragement” group (based on 70 percent power calculation mentioned in the box above). The encouragement group received periodic text messages per the dissemination plan shown in the box above. The texts, which were delivered via WhatsApp, Telegram, or Viber, promoted the TV show, advertised the online and in-person speaker events, and short-format social media videos. In this case, treatment is strictly defined as receiving and viewing the SMS messages to consume or engage with the three related interventions described in the previous section: a TV series, an in-person speaker event, and a social media video. We intended to report intent-to-treat (ITT) effects.

Our design is similar in content to evaluations such as [Barsoum et al. \(2022\)](#), [Berg and Zia \(2017\)](#), [Bjorvatn et al. \(2019\)](#), and [Donati, Orozco-Olvera, and Rao \(2022\)](#), which randomly allocates encouragement to view edutainment programs in specific treatment communities. These studies measure the impacts of studies in a controlled setting, such as by inviting participants to a location to view a film. The validity of

extending these effects to a more organic consumption of edutainment---such as regularly watching a TV program---is tenuous. Our experiment tries to estimate the latter style of intervention, which we feel is how media tends to be consumed across the world. Our study, therefore, is more closely related methodologically to past work such as [Barsoum et al \(2022\)](#).

While a random assignment of an encouragement can in theory be used to causally identify intent-to-treat effects, our design in practice faced several challenges that undermined identification. Implementing partners were in operation across the country, and their promotional materials were not limited, for instance, in areas inhabited exclusively by treatment households, meaning that the control group (i.e. those that did not receive encouragement messages) were nonetheless exposed to significant promotions of the three interventions, including TV commercials, fliers, and organic social media content. The program's promotion was more successful than anticipated at reaching potential consumers in both countries, underscoring the tremendous potential of interventions like these. That said, however, the reach of the program meant that there was significant contamination of the control group, as shown in Table 5. For example, at endline, 37.3 percent of the treatment group had watched the TV show, but more than a quarter of the control group had watched the TV show as well. The high relative engagement of the control group in the various interventions means that the control group cannot serve as an appropriate comparison when surmising potential effects of the campaign. This also alludes to how successful the campaign was in its reach, across the populations in both countries – highlighting the effectiveness of the campaign content as well as the promotional campaigns carried out by the local media firms and IFC country teams.

Table 5. Take-up of the three edutainment programs according to encouragement assignment

	Watched TV show		Watched TedX		Engaged in social content		Consumed any treatment	
	<i>Midline</i>	<i>Endline</i>	<i>Midline</i>	<i>Endline</i>	<i>Midline</i>	<i>Endline</i>	<i>Midline</i>	<i>Endline</i>
Non-Encouragement	20.2%	26.3%	12.0%	17.0%	14.9%	21.3%	30.4%	37.5%
Encouragement	28.3%	37.3%	15.9%	22.8%	23.2%	32.2%	39.5%	48.7%
Total	25.6%	33.6%	14.5%	20.7%	20.4%	28.5%	36.5%	45.0%

A common remedy for this issue is instrumental variables (IV) ([Buehren et al. \(2024\)](#)). The (random) assignment of a group to encouragement can be used as an instrument for the observed take-up of the treatment. Because the encouragement was randomly allocated across the sample, the instrument is likely to be exogenous with the outcome variables. With a high degree of take-up among the control group, however, it is not guaranteed that the instrument will be valid (or predictive of take-up). A common rule of thumb is that the F-statistic of the first stage of 2SLS should exceed 10 in order for the instrument to be valid. In our case, the F-statistic does not exceed 10 for most outcomes, and that it does not do so is not sensitive to different subsets of the sample (see Table A2 in the Annex). That the random assignment of encouragement does not appear to be a valid instrument for take-up of the edutainment campaign is likely primarily due to significant contamination of the non-encouragement group but also due to higher-than-expected attrition.

The failed randomization essentially leaves us in a situation where we have a baseline and two additional rounds of surveying respondents, some of whom have (non-randomly) decided to watch the TV show. A natural way to proceed is to utilize statistical matching, difference-in-difference, or some combination of the two. Difference-in-difference may well address the endogeneity issue. Testing whether the parallel assumption holds – that is, whether the difference between treatment groups, in the absence of the treatment, would remain constant over time – lends credibility to the claim that difference-in-difference has addressed the endogeneity issue. With limited pre-treatment data, however, it is difficult to be certain that

the source of endogeneity has been addressed – or that the parallel trends assumption holds. For this reason, we feel that, in the very least, some form of matching is required to correct for self-selection bias.

Matching is widely used as a method to estimate Average Treatment Effects (ATE) using observational data or when randomization does not work properly in RCTs. It is also used in combination with RCTs to improve estimation and statistical power.² There is no shortage of methods to conduct statistical matching (Table 6). The question that most interests us here, however, is not directly concerned with method. In the first instance, we are concerned with how much to prioritize (minimize) bias vis-a-vis external validity and comparability. We see an inherent trade-off between bias and comparability. The more severe matching methods will achieve tremendous balance – or even exact balance – among baseline variables, but they may result in some observations without a match. If certain subgroups of the data are difficult to find matches, it may result in a matched dataset that is unrepresentative of the original dataset. Moreover, there is the related question of whether to first match the data and then estimate programmatic impacts on all outcomes using difference-in-difference, or whether to separately match the data for each outcome, placing particular emphasis on the balance of the outcome of interest at baseline, before doing a difference in means between treatment and matched control. Combining this approach with more severe matching methods would minimize bias, but make it slightly more difficult to compare hypothesis tests, as the matched samples may differ by outcome.

Table 6. Taxonomy of Matching Methods

Exact				Matching
➤				Strict
➤	Coarsened	Exact	Matching	(CEM)
➤	Fuzzy	Matching/Approximate	String	Matching
Approximate				Matching
➤	Propensity	Score		Matching
	▸ Nearest	Neighbor		Matching
	▸ Caliper			Matching
	▸ Radius			Matching
	▸ Kernel			Matching
	▸ Stratification			Matching
➤	Mahalanobis	Distance		Matching
➤		Genetic		Matching
➤	Subclassification Matching			

Faced with this difficult tradeoff, we decided to prioritize bias minimization rather than comparability across outcomes and with the other samples. We want to have the strongest claim to causality we can. In particular, we utilize a genetic matching algorithm to create a control group that did not consume the campaigns that is as balanced as possible in baseline characteristics with participants that consumed them. We match our sample on the following variables: baseline value of the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g.

² Imbens, Guido W. and Donald B. Rubin. 2015. "Causal Inference for Statistics, Social and Biomedical Sciences: An introduction." Cambridge University Press.

events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). We enforce exact matching on marital status, demographic, and the baseline value of the outcome variable if it is binary to ensure those consuming the edutainment campaigns were being compared with a control group consisting of members of their same demographic. It is possible that the matching algorithm does not find an appropriate match for all observations; for this reason, the sample sizes of hypothesis tests may be slightly different to one another. Moreover, questions that were demographic specific may also have fewer reported observations.

Tables A6 to A9 show the significant improvement in the balance achieved by the genetic matching algorithm across treatment arms – that is, across those consuming various numbers of interventions compared to those that did not consume any intervention. While p-values are a function of the absolute difference between the treatment group means, they are more than anything a measure of statistical power. For this reason, we also decided to report normalized differences between the treatment groups before and after matching. The literature suggests a cutoff of $[+/-] 0.25$ as a rule of thumb, beyond which differences start becoming practically significant. Tables A6 to A9 show the remarkable power of the genetic matching to obtain balance: among the 72 hypotheses for which balance was assessed, there was not a single imbalance, judging from either p-values or normative differences, among any of the 11 variables utilized in the genetic matching algorithm, despite significant imbalances between campaign consumers and control in the unmatched sample.

3.3 Estimation model

As noted by [Diamond and Sekhon \(2013\)](#), genetic matching searches over the set of distance metrics to identify a measure of distance that is optimal for achieving balance across treatment and the proposed synthetic control.³ It specifically aims to minimize the distance function across all respondents (i,j):

$$d(X_i, X_j) = \left\{ (X_i - X_j)' (S^{-\frac{1}{2}})' W S^{-\frac{1}{2}} (X_i - X_j) \right\}^{\frac{1}{2}}$$

where W is a $k \times k$ positive definite weight matrix with all zeros except along its main diagonal, the elements of which must be chosen by the matching model, $S^{-\frac{1}{2}}$ is the Cholesky decomposition of S , the variance-covariance matrix of the baseline covariates matrix X . Once distances are calculated, matches are made. In our case, we have selected one “control” match for every treated observation. Average treatment effect on the treated is then given as

$$ATT = Average(Y_{treated}) - Average(Y_{matched\ control})$$

We run the matching process and ATT estimation for many different definitions of treatment. One can, for instance, define treatment simply as having watched the TV show, or having watched the in-person speaker event, or engaged with the social media video. One could also define it as having consumed at least one of these---or having consumed all three. One could also define treatment as the total number of interventions consumed. For our main specification, we decided to report two primary definitions of treatment: 1) Having consumed at least one campaign; and 2) Having consumed at least two interventions. Only two percent of our sample consumed at least three interventions, so we do not report these effects. Moreover, with such a small sample size, they would not be likely to have enough statistical power to make

³ Diamond, Alexis and Jasjeet S Sekhon. 2013. “Genetic matching for estimating causal effects: A general multivariate matching method for achieving balance in observational studies.” *Review of Economics and Statistics*, 95(3)932-945.

meaningful assessments. The separation of these two definitions of treatment, as opposed using one treatment variable reflecting the sum of campaigns consumed, allows for the possibility of non-linear effects of consuming additional interventions.

The timing of when the interventions are consumed also matters. Respondents in our study were consuming the interventions continuously, even after their promotion (both our encouragement messages and other means of promotion) ended. We do not know exactly when respondents consumed the campaign, but we do know who consumed which interventions by midline and who consumed which interventions by endline. The data show that most of the consumption of campaigns happened prior to midline, coinciding with campaign promotion, rather than in between midline and endline. Insofar as campaign consumption had different effects in the short term and the medium term, including beneficiaries that consumed additional interventions between midline and endline could muddle the interpretations of impacts at midline and endline respectively. For this reason, we restrict our subsequent analysis to 773 of the 898 respondents answering all three surveys that did not consume any interventions after midline. This choice allows us to interpret results at midline as “short-term effects” and those at endline as “medium-term effects”.

This evaluation’s survey design and statistical methods enabled the assessment of the impact of the campaign on the personal beliefs, and behaviors and practices of the target groups (women and youth) in both countries.

4. Results

This section presents the results from the genetic matching process described in the previous section. It reviews the results by outcome, starting with outcomes related to account ownership, before turning to savings, spending, and finally trust in financial institutions.

Each section will present three groups of results. First, it presents results for the entire sample with two broad definitions of campaign consumption, at least one intervention consumed and at least two interventions consumed. In the measuring of the latter, we are slightly constrained by statistical power, as there were not many beneficiaries in our sample who consumed two or more. The second set of results explores the effectiveness of individual interventions (compared to consuming none of the interventions). And finally, the third set of results looks at the effects of consuming at least one campaign on four demographics: Kyrgyz women, Kyrgyz youth, Tajik women, and Tajik youth. This final set of results is important, because the margin for change includes both the type of campaign and the demographic receiving them. Unfortunately, due to sample size issues we are not able to look at both margins simultaneously.

Because we are testing a large number of hypotheses without grouping into indices, we conduct Benjamini-Hochberg p-value corrections, whose significance is reflected in the tables with a “+” in the super script above the standard errors. The significance of unadjusted p-values is reported by asterisks. All results are bolded for ease of viewing.

The reported sample sizes indicate the total matched sample size (i.e. treated units plus control units). For the most part, the sample size at midline corresponds to the sample size at endline. For a few tests, however, the sample size differs by a few observations. This is because for that particular outcome, some respondents failed to answer the question at midline or endline, resulting in different matched sample sizes.⁴

4.1 Account ownership

Table 7 reports the treatment effects calculated from the matched sample. Consuming at least one campaign resulted in a significant net increase in account ownership (7.6 percent) and especially e-wallet ownership (10.9 percent) at midline. There does not appear to be a dose-dependent effect of consuming two or more interventions (the coefficients are not significantly different from those associated with consuming at least one campaign). These effects, at least for the sample as a whole, do not persist through endline.

Table 8 shows that the impacts on e-wallet ownership stemmed mostly from the TV show, which increased the likelihood of owning an e-wallet by 12.4 percent. Meanwhile, the effects on account ownership were mostly mediated by the public talk campaign, which increased the probability of ownership by 20 percent at midline and 16.7 percent at endline. The results in Table 9 indicate that it is Tajik women that were the biggest responders to the campaign. They are the only demographic that showed significant increases in account ownership and e-wallet ownership. These results remained strong through endline. While some other demographics showed positive point estimates for these outcomes, none of them was significant (except Kyrgyz youth, for which there is slight evidence of the interventions decreasing the incidence of e-wallet ownership at endline).

⁴ Because the genetic matching algorithm uses random initial guesses at the weight matrix that minimizes the weighted Mahalanobis distance, it is theoretically possible that subsequent iterations may produce small differences in sample size. That said, in practice we do not observe this happening, almost certainly due to our allowing up to 50 generations of searches. This effectively means that it finds close to the same solution each time.

The campaign resulted in a greater awareness by women that society does not want them to use bank accounts, but only when two or more interventions are consumed (Table 7). There is slight evidence that the campaign also resulted in women being more likely to agree that women should not manage their own financial affairs without family approval, an effect that was stronger among those consuming two or more interventions (Table 7). It is worth noting that the coefficients are both large and positive for this outcome for both countries in Table 9, but neither is significant, suggesting plenty of movement in the data. So, while it is difficult to say whether women actively believe in these statements or whether they feel pressured by their husbands/ community to report it, it is evident that there is something happening here.

Table 7. Treatment effects on account ownership related outcomes

Outcome	MIDLINE				ENDLINE			
	(1)		(2)		(3)		(4)	
	At least 1		At least 2		At least 1		At least 2	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Has an e-wallet	0.109**	460	0.105	134	0.022	460	-0.000	134
2	(0.044)*		(0.087)		(0.042)		(0.072)	
3 Has any account	0.076*	460	0.124	134	0.014	460	-0.036	134
4	(0.039)		(0.076)		(0.033)		(0.056)	
5 My community expects women to not use bank accounts as it's a	0.239	202	0.648**	60	-0.036	202	0.388	60
6 sign they want financial independence	(0.165)		(0.293)		(0.144)		(0.254)	
7 Opened a new account in last 3 months	0.035	304	0.139*	96	0.032	304	-0.010	96
8	(0.049)		(0.080)		(0.040)		(0.074)	
9 Women should not use their own bank accounts & manage their	0.330*	212	0.735**	64	-0.110	214	0.191	66
10 finances without family approval	(0.171)		(0.276)		(0.159)		(0.249)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 8. Treatment effects on account ownership related outcomes by intervention

Outcome	MIDLINE						ENDLINE					
	(1)		(2)		(3)		(4)		(5)		(6)	
	<u>Social</u>		<u>Public talk</u>		<u>TV show</u>		<u>Social</u>		<u>Public talk</u>		<u>TV show</u>	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Has an e-wallet	-0.035	174	0.117	122	0.124**	264	0.080	174	0.055	122	-0.008	264
2	(0.070)		(0.086)		(0.056)		(0.067)		(0.083)		(0.052)	
3 Has any account	0.013	174	0.203**	122	0.019	264	0.010	174	0.167**	122	0.045	264
4	(0.060)		(0.087)		(0.048)		(0.060)		(0.076)		(0.043)	
5 My community expects women to not use bank	-0.365	62	0.513	60	0.166	122	0.132	60	-0.398	60	-0.117	122
6 accounts as it's a sign they want financial	(0.318)		(0.322)		(0.178)		(0.247)		(0.298)		(0.171)	
7 Opened a new account in last 3 months	-0.134	122	0.049	82	0.016	158	0.056	142	0.031	104	0.075	184
8	(0.090)		(0.097)		(0.066)		(0.067)		(0.061)		(0.051)	
9 Women should not use their own bank accounts &	-0.256	70	-0.069	64	0.595***	128	0.047	72	-0.204	64	-0.008	130
10 manage their finances without family approval	(0.291)		(0.300)		(0.225)		(0.298)		(0.266)		(0.201)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 9. Treatment effects on account ownership related outcomes by demographic

Outcome	MIDLINE								ENDLINE							
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	KZ Older Women		KZ Youth		TJ Older Women		TJ Youth		KZ Older Women		KZ Youth		TJ Older Women		TJ Youth	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Has an e-wallet	0.094 (0.083)	132	0.015 (0.089)	112	0.263** (0.107)*	84	-0.113 (0.073)	132	0.090 (0.085)	132	-0.133* (0.073)	112	0.318*** (0.093)*	84	0.044 (0.071)	132
3 Has any account	-0.062 (0.077)	132	0.110 (0.076)	112	0.277*** (0.097)*	84	-0.068 (0.069)	132	-0.052 (0.066)	132	-0.076 (0.058)	112	0.182** (0.081)*	84	0.067 (0.054)	132
5 My community expects women to not use bank	0.311 (0.192)	126			0.321 (0.301)	76			0.116 (0.147)	126			0.117 (0.261)	76		
6 accounts as it's a sign they want financial																
7 Opened a new account in last 3 months	-0.101 (0.088)	92	0.471*** (0.096)*	50	0.169** (0.077)	72	-0.050 (0.094)	90	0.011 (0.102)	92	0.196* (0.101)	54	0.073 (0.055)	72	0.267*** (0.070)*	90
9 Women should not use their own bank accounts	0.373* (0.211)	128			0.071 (0.276)	84			-0.159 (0.151)	130			0.199 (0.292)	84		
10 & manage their finances without family approval																

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

4.2 Savings

Tables 10 to 12 show programmatic effects for outcomes related to savings. Unfortunately, during data collection, respondents seemed hesitant to share information about their money and where they saved it. For this reason, our sample size is lower, and we hesitate to overinterpret the results in tables 11 and 12, which further break down the results in table 10 by specific treatment and demographic. We therefore do not discuss them in the text, but report them should the reader be curious.

A useful *point de depart* is that consuming at least one intervention resulted in an increased likelihood to hold money in a formal account (Table 10 row 15 column 1). Those consuming at least one intervention were 16.7 percent more likely to hold formal savings at midline and 12.6 percent more likely at endline. There is also evidence that campaign consumption increased formal savings balances (Table 10 row 13 column 1). Those consuming at least one intervention increased formal savings balances by US\$222.68 at midline, though this effect was not seen at endline.

Interestingly, Table 10 also shows that campaign consumption caused respondents to decrease their informal savings balance, an effect that also was not observed at endline (row 23 column 1). These results suggest that some of increase in formal savings balance observed at midline was sourced from informal holdings. The statistically significant coefficient on the outcome Total Savings Balance suggests that the increase in formal savings perhaps was not solely from informal sources (Table 10 column 1). Notably, campaign consumption resulted in a decrease of total savings balance—especially among those consuming two or more interventions.

Table 10 also reveals that women report having reduced decision-making power on savings as a result of the interventions at endline (row 3 column 3). There is a negative but insignificant point estimate at midline for this hypothesis. Furthermore, consuming one intervention caused greater awareness among women that society expects women to give their money to their families to manage (Table 10 row 29 column 1). This effect was present at midline and endline. Women seemed more likely to say that women should indeed give all their money to their family, though this effect was only present at midline (Table 10 row 1 column 1).

Table 10. Treatment effects on savings-related outcomes

Outcome	MIDLINE				ENDLINE			
	(1)		(2)		(3)		(4)	
	At least 1 campaign		At least 2 campaigns		At least 1 campaign		At least 2 campaigns	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 All the money that women earn should be given to the family to	0.484***	214	0.375	66	0.010	214	-0.218	66
2 manage	(0.141)**		(0.227)		(0.148)		(0.227)	
3 Decisionmaking power on savings (Likert scale)	-0.052	218	0.090	66	-0.158***	218	-0.091	66
4	(0.065)		(0.121)		(0.057)*		(0.116)	
5 Decreased formal savings from baseline	-0.070	192	-0.032	68	0.069	190	-0.056	72
6	(0.066)		(0.128)		(0.067)		(0.120)	
7 Decreased informal savings from baseline	0.101	180	-0.065	62	0.170**	208	0.090	74
8	(0.071)		(0.125)		(0.067)*		(0.109)	
9 Decreased total savings from baseline	-0.005	158	0.133	60	0.162**	172	0.111	68
10	(0.065)		(0.128)		(0.065)*		(0.119)	
11 Do you have money saved that is a secret from your family?	-0.209**	86	0.303	26	0.399***	58	1.031***	22
12	(0.096)		(0.184)		(0.108)**		(0.150)***	
13 Formal savings balance (2022USD)	222.680**	196	272.306	68	37.242	196	-146.771	72
14	(101.785)		(171.675)		(71.824)		(140.084)	
15 Has any formal savings	0.167***	196	0.030	68	0.126**	194	0.156	70
16	(0.063)*		(0.117)		(0.058)		(0.108)	
17 Has any informal savings	-0.157***	190	-0.181*	62	0.023	214	-0.082	72
18	(0.047)**		(0.092)		(0.043)		(0.087)	
19 Has any savings, regardless of source	-0.051	214	0.070*	68	0.113***	228	-0.006	76
20	(0.041)		(0.040)		(0.043)*		(0.064)	
21 Increased formal savings from baseline	0.087	192	-0.046	68	-0.008	190	-0.014	72
22	(0.070)		(0.118)		(0.071)		(0.124)	
23 Increased informal savings from baseline	-0.126*	180	0.087	62	-0.177**	208	-0.192*	74
24	(0.068)		(0.095)		(0.069)*		(0.111)	
25 Increased total savings from baseline	-0.027	158	-0.214	60	-0.123*	172	-0.183	68
26	(0.075)		(0.139)		(0.068)		(0.118)	
27 Informal savings balance (2022USD)	-5.342	190	-378.758	62	-278.649**	216	-271.704	74
28	(184.277)		(402.273)		(113.888)*		(218.283)	
29 My community expects women to give all their earnings to their	0.296**	208	0.261	64	0.283*	210	0.132	66
30 family to manage	(0.127)*		(0.231)		(0.150)		(0.250)	
31 Total savings, all sources (2022USD)	419.169*	168	66.150	60	-341.159**	182	-637.709***	68
32	(212.015)		(315.666)		(162.887)		(213.760)*	
33 What proportion of income do you save? (1-10%=1, 11-20%=2, 21-	0.037	198	0.352	64	-0.209	204	-0.469	72
34 30%=3, >30=4)	(0.155)		(0.314)		(0.163)		(0.282)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 11. Treatment effects on savings-related outcomes by intervention

Outcome	MIDLINE						ENDLINE					
	(1)		(2)		(3)		(4)		(5)		(6)	
	Social		Public talk		TV show		Social		Public talk		TV show	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 All the money that women earn should be given to	0.283	68	-0.184	70	-0.075	130	-0.159	68	-0.261	70	-0.165	130
2 the family to manage	(0.224)		(0.204)		(0.177)		(0.258)		(0.211)		(0.189)	
3 Decisionmaking power on savings (Likert scale)	-0.140*	76	0.027	72	0.074	136	-0.071	76	-0.245**	72	0.038	136
4	(0.083)		(0.102)		(0.070)		(0.112)		(0.105)		(0.082)	
5 Decreased formal savings from baseline	-0.053	80	-0.115	54	-0.019	78	-0.022	86	-0.003	54	0.009	102
6	(0.102)		(0.128)		(0.110)		(0.109)		(0.148)		(0.098)	
7 Decreased informal savings from baseline	0.205	68	-0.274**	52	0.184**	80	0.248**	90	-0.059	58	0.006	120
8	(0.123)		(0.115)		(0.092)		(0.108)		(0.142)		(0.093)	
9 Decreased total savings from baseline	0.373***	62	-0.192	50	0.044	62	0.127	78	-0.114	52	0.049	94
10	(0.111)*		(0.120)		(0.111)		(0.121)		(0.149)		(0.102)	
11 Do you have money saved that is a secret from your	-0.112	24	0.111	18	-0.070	44	0.100	20	0.143	14	0.838***	22
12 family?	(0.160)		(0.189)		(0.144)		(0.170)		(0.241)		(0.087)***	
13 Formal savings balance (2022USD)	-104.712	92	182.480	60	404.443**	98	-33.649	86	279.896**	54	175.864*	102
14	(105.293)		(164.079)		(156.891)		(108.549)		(112.801)		(99.719)	
15 Has any formal savings	0.188**	82	0.094	58	0.102	84	-0.008	82	0.165	52	-0.066	90
16	(0.081)		(0.108)		(0.111)		(0.109)		(0.128)		(0.096)	
17 Has any informal savings	-0.060	76	0.035	54	-0.175**	96	-0.085	86	0.041	54	-0.003	116
18	(0.098)		(0.090)		(0.074)		(0.055)		(0.073)		(0.060)	
19 Has any savings, regardless of source	0.068	96	-0.033	60	-0.016	116	0.021	96	0.084	60	0.053	126
20	(0.046)		(0.033)		(0.060)		(0.036)		(0.074)		(0.050)	
21 Increased formal savings from baseline	0.015	80	0.030	54	0.081	78	-0.002	86	-0.020	54	-0.030	102
22	(0.125)		(0.123)		(0.108)		(0.104)		(0.153)		(0.095)	
23 Increased informal savings from baseline	-0.180	68	0.310**	52	-0.240**	80	-0.243**	90	0.152	58	0.053	120
24	(0.120)		(0.115)		(0.101)		(0.109)		(0.119)		(0.093)	
25 Increased total savings from baseline	-0.329***	62	0.238	50	-0.096	62	-0.129	78	0.118	52	-0.090	94
26	(0.116)		(0.149)		(0.111)		(0.114)		(0.127)		(0.106)	
27 Informal savings balance (2022USD)	-570.164*	82	433.170	58	113.409	98	-417.661***	90	213.419	58	77.041	120
28	(315.332)		(317.782)		(243.645)		(129.031)**		(127.603)		(99.262)	
29 My community expects women to give all their	0.084	68	-0.196	62	0.555***	110	0.317	68	0.299	64	-0.023	112
30 earnings to their family to manage	(0.274)		(0.273)		(0.164)**		(0.197)		(0.225)		(0.195)	
31 Total savings, all sources (2022USD)	-532.959	76	433.747	56	311.314	78	-674.277***	78	159.821	52	-97.068	94
32	(383.769)		(378.618)		(307.575)		(213.826)**		(201.479)		(149.954)	
33 What proportion of income do you save? (1-10%=1,	0.296	78	0.728*	40	-0.047	84	0.036	78	-0.378	44	-0.218	92
34 11-20%=2, 21-30%=3, >30=4)	(0.244)		(0.363)		(0.213)		(0.265)		(0.352)		(0.244)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 12. Treatment effects on savings-related outcomes by demographic

Outcome	MIDLINE								ENDLINE							
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	KZ Older	Obs	KZ Youth	Obs	TJ Older	Obs	TJ Youth	Obs	KZ Older	Obs	KZ Youth	Obs	TJ Older Women	Obs	TJ Youth	Obs
1 All the money that women earn should be given	0.286	130			0.382**	84			0.203	130			-0.222	84		
2 to the family to manage	(0.222)				(0.187)				(0.211)				(0.234)			
3 Decisionmaking power on savings (Likert scale)	-0.108	134			0.117	84			-0.155**	134			-0.168	84		
4	(0.078)				(0.103)				(0.074)				(0.102)			
5 Decreased formal savings from baseline	-0.948***	26	-0.061	46	0.143	40	-0.115	80	-0.190	44	0.084	44	0.430***	40	0.452***	68
6	(0.074)***		(0.137)		(0.180)		(0.093)		(0.123)		(0.142)		(0.152)**		(0.121)***	
7 Decreased informal savings from baseline	-0.060	30	0.067	38	-0.242*	34	0.411***	78	-0.119	54	-0.088	50	0.165	36	0.299***	76
8	(0.176)		(0.180)		(0.131)		(0.091)***		(0.123)		(0.125)		(0.132)		(0.108)**	
9 Decreased total savings from baseline	-0.031	24	0.212	30	-0.100	32	-0.215**	72	0.266*	42	0.266**	38	0.498***	34	0.264**	68
10	(0.160)		(0.193)		(0.107)		(0.096)		(0.149)		(0.107)*		(0.171)**		(0.118)*	
11 Do you have money saved that is a secret from	-0.113	50			-0.195	36			0.794***	32			-0.138	26		
12 your family?	(0.120)				(0.136)				(0.121)***				(0.160)			
13 Formal savings balance (2022USD)	48.546	30	777.012***	46	-4.533	40	407.389**	80	118.672	44	-1606.056***	44	-1607.683***	40	286.823**	68
14	(86.082)		(248.653)**		(115.354)		(158.847)*		(129.638)		(152.642)***		(175.435)***		(115.832)*	
15 Has any formal savings	0.689***	30	0.139	46	0.248*	40	0.033	80	0.617***	42	-0.499***	44	0.021	40	-0.084	68
16	(0.163)***		(0.119)		(0.146)		(0.112)		(0.103)***		(0.135)***		(0.102)		(0.102)	
17 Has any informal savings	-0.353***	34	1.910***	44	-0.118	34	-0.065	78	-0.014	54	0.252**	48	-0.081	36	-0.170***	76
18	(0.116)**		(0.143)***		(0.078)		(0.062)		(0.083)		(0.101)*		(0.111)		(0.052)**	
19 Has any savings, regardless of source	-0.333***	36	-0.147	52	-0.048	42	-0.005	84	-0.017	56	0.195***	54	0.073	42	0.341***	76
20	(0.111)**		(0.094)		(0.046)		(0.034)		(0.080)		(0.060)**		(0.106)		(0.050)***	
21 Increased formal savings from baseline	0.038	26	0.169	46	0.126	40	-0.071	80	0.068	44	-0.338**	44	-0.331**	40	-0.435***	68
22	(0.184)		(0.140)		(0.128)		(0.113)		(0.133)		(0.131)*		(0.150)*		(0.128)***	
23 Increased informal savings from baseline	-0.101	30	0.788***	38	-0.051	34	-0.476***	78	0.266**	54	0.312**	50	-0.178	36	-0.128	76
24	(0.176)		(0.127)***		(0.141)		(0.085)***		(0.121)*		(0.132)*		(0.111)		(0.113)	
25 Increased total savings from baseline	0.304	24	-0.287	30	-0.133	32	-0.235**	72	-0.147	42	-0.204*	38	-0.139	34	0.089	68
26	(0.219)		(0.193)		(0.098)		(0.100)*		(0.122)		(0.117)		(0.156)		(0.116)	
27 Informal savings balance (2022USD)	435.435	34	217.751	44	397.270	34	-1696.206**	78	-350.163*	54	-463.424*	50	-268.209*	36	3570.042**	76
28	(408.161)		(509.470)		(310.261)		(275.840)***		(192.769)		(262.780)		(141.180)		(208.699)***	
29 My community expects women to give all their	0.426**	126			0.107	82			0.165	128			0.302	82		
30 earnings to their family to manage	(0.163)*				(0.202)				(0.172)				(0.267)			
31 Total savings, all sources (2022USD)	502.084	28	2574.900**	36	326.757	32	-947.109**	72	1462.694**	42	-2688.341***	38	-1059.984***	34	-557.161**	68
32	(528.579)		(578.507)***		(285.775)		(308.886)**		(278.580)***		(277.960)***		(294.220)***		(227.710)*	
33 What proportion of income do you save? (1-	-0.161	32	-0.351	48	0.490	40	0.033	78	0.727**	46	0.345	44	0.145	40	-0.308	74
34 10%=1, 11-20%=2, 21-30%=3, >30=4)	(0.265)		(0.305)		(0.354)		(0.235)		(0.298)*		(0.290)		(0.295)		(0.291)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

4.3 Spending

Tables 13 to 15 contain the results for spending-related outcomes. The main findings include that consuming one intervention or more increased reported formal account usage in the form of transactions (Table 13 row 15). Consumers of one intervention or more resulted in an average increase of 0.12 transactions per month. The endline point estimate was positive but insignificant. Table 14 row 15 shows that the primary driver of the increase in transactions was the in-person speaker event. Compared to consuming no interventions, consuming the in-person speaker event increased transactions per month by 0.22 at midline (all other interventions had positive coefficients for midline and endline). Table 15 row 15 reveals that while the bump in transactions was only present at midline for Kyrgyz youth and was not present at all for Kyrgyz women, both demographics in Tajikistan saw increased transactions at both midline and endline, suggesting that the campaign, broadly speaking, had a sustained impact on formal account usage in Tajikistan.

Moreover, consuming one intervention resulted in increased awareness of the expectation of young people by their peers that they should keep up with the latest technology trends (Table 13 row 15 column 1), though, overall, they were not more likely to say that they should indeed keep up (Table 13 row 19/20 column 1) and there were no changes observed at endline. There is some evidence that this corresponded to a modest increase in spending on technology of US\$69.81, but the coefficient is marginally significant at midline and not significant at endline (Table 13 row 9). Looking at Table 14, the TV show, if any, is responsible for these results, though it is difficult to say (column 3). Table 15 shows that it is primarily Tajik youth that are driving this effect (columns 4 and 8). It also shows that in Tajikistan, the interventions cause youth to be more likely to believe that their peers should keep up with technological trends. This did not seem to lead to an increase in spending on technology among Tajik youth, but it went hand-in-hand with spending more money on events at midline.

The interventions, collectively, did not appear to have an effect on women's spending-related decision-making power in either country (Tables 12 and 13 row 1). This result for the most part mirrors what we found earlier for savings-related decision-making power.

In the results for savings, we see that campaign-consumers at endline reduced their total savings balance (Table row 13 column 3). We do not see an increase in spending on events or technology (if anything, perhaps reduced spending on events), so presumably respondents have spent this money on other sources of expenditure, or given it to family to manage, as suggested by the effects on personal beliefs in Table 9. Given that we do not observe where this money goes, it is impossible to say with certainty.

Table 13. Treatment effects on spending-related outcomes

Outcome	MIDLINE				ENDLINE			
	(1)		(2)		(3)		(4)	
	At least 1 campaign		At least 2 campaigns		At least 1 campaign		At least 2 campaigns	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Decisionmaking power on purchases (Likert scale)	0.027	216	0.035	66	-0.036	216	-0.022	66
2	(0.057)		(0.104)		(0.059)		(0.117)	
3 Society expects women to spend a lot on events/feasts/gifts	0.148	204	0.221	66	0.135	206	0.186	66
4	(0.148)		(0.267)		(0.127)		(0.224)	
5 Society expects young people to spend a lot on events/feasts/gifts	0.107	238	0.285	70	0.090	238	-0.022	70
6	(0.129)		(0.246)		(0.120)		(0.200)	
7 Spending on events (2022USD)	60.104	414	-32.274	124	-156.410**	420	92.051	124
8	(74.708)		(121.693)		(79.324)		(128.025)	
9 Spending on technology (2022USD)	69.812*	240	-29.043	72	-10.914	236	-32.385	70
10	(41.529)		(83.105)		(39.048)		(82.354)	
11 The amount people spend on events/feasts/gifts for parties is	0.159	208	0.327	66	-0.056	208	-0.050	66
12 reasonable	(0.132)		(0.244)		(0.130)		(0.270)	
13 The amount that people spend on events/feasts/gifts for parties is	-0.143	248	0.103	72	0.243*	248	-0.006	72
14 reasonable	(0.119)		(0.189)		(0.144)		(0.254)	
15 Transactions per month	0.121***	460	0.025	136	0.062	460	-0.013	136
16	(0.043)*		(0.080)		(0.043)		(0.074)	
17 Young people generally expect their peers should keep up with the	0.276***	234	-0.153	66	0.093	234	0.118	66
18 latest technology trends	(0.101)*		(0.177)		(0.083)		(0.153)	
19	0.048	234	0.036	64	0.170	232	0.052	64
20 Young people should keep up with the latest trends in technology	(0.069)		(0.162)		(0.115)		(0.150)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 14. Treatment effects on spending-related outcomes by intervention

Outcome	MIDLINE						ENDLINE					
	(1)		(2)		(3)		(4)		(5)		(6)	
	<u>Social</u>		<u>Public talk</u>		<u>TV show</u>		<u>Social</u>		<u>Public talk</u>		<u>TV show</u>	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Decisionmaking power on purchases (Likert scale)	-0.113	74	-0.157	64	0.095	136	-0.965***	74	-0.128	64	0.140**	136
2	(0.092)		(0.102)		(0.069)		(0.097)***		(0.115)		(0.065)	
3 Society expects women to spend a lot on	0.031	70	0.704**	58	-0.208	116	0.441**	70	-0.461**	58	-0.178	118
4 events/feasts/gifts	(0.282)		(0.264)		(0.188)		(0.219)		(0.214)		(0.174)	
5 Society expects young people to spend a lot on	-0.183	98	0.447*	48	-0.051	126	-0.039	98	0.541**	48	-0.120	126
6 events/feasts/gifts	(0.213)		(0.265)		(0.154)		(0.191)		(0.263)		(0.160)	
7 Spending on events (2022USD)	52.071	170	-202.649	116	-77.975	254	66.485	168	272.869	116	-177.245*	262
8	(111.791)		(167.705)		(105.812)		(94.317)		(166.659)		(91.822)	
9 Spending on technology (2022USD)	78.431	108	-76.653	56	132.959**	142	-44.780	108	29.714	52	111.266*	142
10	(55.072)		(92.744)		(63.705)		(76.495)		(76.664)		(56.366)	
11 The amount people spend on events/feasts/gifts for	0.390	70	-1.339***	58	-0.210	108	-0.000	70	0.182	56	-0.021	110
12 parties is reasonable	(0.250)		(0.282)***		(0.196)		(0.201)		(0.268)		(0.199)	
13 The amount that people spend on events/feasts/gifts	0.354*	106	0.197	48	-0.160	140	0.161	106	-0.265	48	0.341	140
14 for parties is reasonable	(0.183)		(0.300)		(0.147)		(0.186)		(0.390)		(0.209)	
15 Transactions per month	0.091	182	0.220**	116	0.060	274	0.000	182	0.103	116	0.082	274
16	(0.066)		(0.087)		(0.054)		(0.062)		(0.087)		(0.057)	
17 Young people generally expect their peers should	0.327*	96	-0.229	44	-0.018	130	0.084	96	-0.287	44	-0.010	130
18 keep up with the latest technology trends	(0.170)		(0.174)		(0.127)		(0.132)		(0.192)		(0.118)	
19 Young people should keep up with the latest trends in	0.044	100	-0.222*	52	-0.075	130	0.083	98	0.358*	52	-0.344**	130
20 technology	(0.096)		(0.118)		(0.107)		(0.120)		(0.185)		(0.145)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 15. Treatment effects on spending-related outcomes by demographic

Outcome	MIDLINE								ENDLINE							
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	KZ Older Women		KZ Youth		TJ Older Women		TJ Youth		KZ Older Women		KZ Youth		TJ Older Women		TJ Youth	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Decisionmaking power on purchases (Likert scale)	-0.045 (0.067)	132			0.104 (0.099)	84			-0.035 (0.068)	132			-0.003 (0.109)	84		
2 Society expects women to spend a lot on events/feasts/gifts	0.120 (0.191)	126			0.560** (0.259)	78			0.240 (0.157)	128			0.073 (0.217)	78		
3 Society expects young people to spend a lot on events/feasts/gifts			-0.358* (0.191)	106			0.288* (0.171)	132			0.013 (0.145)	106			0.341* (0.177)	132
4 Spending on events (2022USD)	-88.714 (118.084)	106	-72.311 (52.225)	110	364.511 (224.863)	76	411.441*** (146.277)**	122	-542.024** (184.787)**	112	-21.678 (108.912)	108	238.400 (168.861)	78	133.884 (94.475)	122
5 Spending on technology (2022USD)			29.402 (42.753)	112			26.427 (68.355)	128			8.494 (49.752)	112			-2.228 (61.272)	124
6 The amount people spend on events/feasts/gifts for parties is reasonable	0.328* (0.174)	128			-0.326 (0.254)	80			0.026 (0.164)	130			-0.228 (0.198)	78		
7 The amount that people spend on events/feasts/gifts for parties is reasonable			-0.479*** (0.141)**	116			-0.039 (0.196)	132			0.243 (0.182)	116			0.227 (0.172)	132
8 Transactions per month	-0.031 (0.092)	130	0.182** (0.076)*	114	0.234** (0.096)*	84	0.224*** (0.083)**	132	-0.095 (0.071)	130	-0.123 (0.079)	114	0.411*** (0.089)***	84	0.336*** (0.092)***	132
9 Young people generally expect their peers should keep up with the latest technology trends			0.151 (0.136)	110			0.269* (0.153)	124			-0.122 (0.109)	110			0.217* (0.126)	124
10 Young people should keep up with the latest trends in technology			-0.071 (0.099)	108			0.263** (0.103)*	126			-0.128 (0.182)	108			0.342*** (0.109)**	124

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

4.4 Trust

Tables 16 to 18 contain the results for outcomes related to trust in financial institutions. For our sample as a whole, there is not substantial evidence of a change in trust in banks (Table 16 row 1). While there are signs that the social campaign may have increased trust (table 17 row 1 column 1) or Kyrgyz women increasing their mistrust as a result of the interventions (Table 18 row 1 column 1), these are only marginally significant, and hence we do not put much weight behind these results.

There is some evidence at both midline and endline that the interventions increased agreement among youth in the statement that families expect young people to rely on them for financial support (row 3 of Table 16). This appeared to be driven by the social campaign (Table 17 columns 1 and 4) and the effects were found primarily among Tajik youth (table 18 column 8).

Interestingly, while there was a null effect for the overall youth subsample on whether young people need not plan ahead financially due to their family's financial support (Table 16 row 7), we observe divergent results for youth in the two countries. Youth in Kyrgyzstan were significantly less likely to agree with the assertion, reflecting an increased importance in financial preparation (Table 18 row 7 column 2). Meanwhile, youth in Tajikistan were significantly more likely to agree with the assertion, and this effect persisted through endline (Table 18 row 7). There does not appear to be any one intervention significantly powering these results (Table 17 row 7).

Moreover, women consuming at least one intervention were more likely to agree that friends and family expect women to not use bank accounts due to their lack of trustworthiness, though this effect was only

present at midline (Table 16 row 5 column 1). Like the previous result, this effect on personal beliefs was driven by the social campaign (table 14 column 1) and was only seen in Tajikistan (Table 18 column 3).

Table 16. Treatment effects on trust-related outcomes

Outcome	MIDLINE				ENDLINE			
	(1)		(2)		(3)		(4)	
	At least 1 campaign		At least 2 campaigns		At least 1 campaign		At least 2 campaigns	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Banks should not be trusted (older women)	0.095	210	-0.027	64	0.066	208	-0.052	64
2	(0.147)		(0.305)		(0.143)		(0.251)	
3 Families expect young people to rely on them for financial support	0.212*	246	-0.056	70	0.242*	244	0.058	70
4 (youth)	(0.127)		(0.266)		(0.136)		(0.252)	
5 Friends/family expect women to not use banks as they can't be	0.350**	206	0.351	64	0.041	206	-0.084	64
6 trusted (older women)	(0.137)*		(0.237)		(0.111)		(0.173)	
7 Young people do not need to plan ahead financially because they	-0.070	244	-0.098	68	0.039	244	0.072	68
8 rely on their family for financial support (youth)	(0.134)		(0.237)		(0.131)		(0.242)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 17. Treatment effects on trust-related outcomes by intervention

Outcome	MIDLINE						ENDLINE					
	(1)		(2)		(3)		(4)		(5)		(6)	
	Social		Public talk		TV show		Social		Public talk		TV show	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Banks should not be trusted	-0.390*	72	-0.292	64	0.011	128	-0.306	72	0.103	62	-0.011	128
2	(0.220)		(0.278)		(0.178)		(0.247)		(0.273)		(0.168)	
3 Families expect young people to rely on them for	0.422*	92	0.250	46	-0.006	124	0.846***	92	-0.011	44	-0.043	124
4 financial support	(0.237)		(0.292)		(0.178)		(0.205)***		(0.358)		(0.177)	
5 Friends/family expect women to not use banks as	0.396*	66	-0.137	64	0.007	124	0.014	66	0.082	64	-0.133	124
6 they can't be trusted	(0.218)		(0.221)		(0.179)		(0.203)		(0.216)		(0.116)	
7 Young people do not need to plan ahead financially	0.179	96	0.323	52	-0.144	130	0.104	96	-0.139	52	0.077	130
8 because they rely on their family for financial support	(0.203)		(0.307)		(0.189)		(0.199)		(0.260)		(0.167)	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

Table 18. Treatment effects on trust-related outcomes by demographic

Outcome	MIDLINE								ENDLINE							
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	KZ Older Women		KZ Youth		TJ Older Women		TJ Youth		KZ Older Women		KZ Youth		TJ Older Women		TJ Youth	
	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs	Est / (se)	Obs
1 Banks should not be trusted	0.244*	128			0.019	82			0.051	128			0.339	80		
2	(0.142)				(0.271)				(0.150)				(0.247)			
3 Families expect young people to rely on them for			0.258	114			0.011	132			-0.128	114			0.593***	130
4 financial support			(0.159)				(0.191)				(0.223)				(0.173)***	
5 Friends/family expect women to not use banks	0.056	126			0.743***	80			0.153	126			0.063	80		
6 as they can't be trusted	(0.137)				(0.254)**				(0.117)				(0.194)			
7 Young people do not need to plan ahead			-0.550***	112			0.469***	132			-0.088	112			0.462**	132
8 financially because they rely on their family for			(0.197)**				(0.173)**				(0.177)				(0.188)*	

Note: Matched samples come from running the genetic matching algorithm, which pairs each treated observation with one control observation. Observations are matched on the following characteristics gathered at baseline: the outcome variable (if available), age, whether household head, whether married, household size, education level, baseline spending characteristics (e.g. events for women, and technology for youth), informal savings balance, monthly income, and demographic (a categorical variable representing country, gender, and age group). The algorithm matched exactly on the outcome variable, marital status, and demographic, except for monetary variables, which allowed for inexact matching on the baseline value of the outcome variable. Observations were dropped if a quality match could not be found. Outcomes were not measured if quality balance could not be obtained across the sample. ATT is a difference in means t-test between the matched treatment and control group.

5. Conclusion

This paper reviewed the effects of a large-scale edutainment program in Kyrgyz Republic and the Republic of Tajikistan. Its main contribution was to document the effects of the edutainment campaign on personal beliefs and behaviors related to account ownership, spending, saving and trust in financial institutions in an area of the world (Central Asia) where relatively few such studies have been done. In addition to contributing evidence on the impacts of nationally syndicated edutainment campaigns, this paper also provided a use case for utilizing statistical matching in an RCT setting, when there is significant contamination of the control group so that the randomized assignment can no longer be relied on for a valid instrument. In particular, we discuss the inherent tradeoff between bias and external validity when choosing between statistical matching methods and illustrate how genetic matching can be used to achieve superior balance at baseline.

This paper finds that the edutainment campaign caused viewers to formalize their financial practices in multiple dimensions. Content consumers were more likely to save money in formal accounts, more likely to open new accounts—particularly e-wallets—with a formal financial institution, and more likely to transact with accounts in formal financial institutions. While some of these effects were only found at midline, indicators of account usage like transactions and likelihood of holding formal savings persisted through endline. We also find that campaign consumption caused an increased awareness of social norms that disadvantaged their respective demographics, though we tended not to see a change in the level of agreement with these norms. The campaigns aimed to address some of the visible beliefs and financial behaviors of the populations in both countries, but there is limited evidence to discuss the impact on the underlying norms, which are part of a more foundational issue, and this likely requires more long-term engagement both in terms of campaign treatment, as well as impact measurement.

The results of our study support edutainment campaigns as an effective tool to spur formalization of financial behaviors and short-term increases in awareness of related social norms. More research is needed to understand additional mechanisms connecting personal beliefs and behavior change in similar contexts.

On a policy level, using behavioral tools like edutainment campaigns to improve the financial well-being of the population, can tie into the strategic development objectives of policymakers, as it aligns with the consumer protection, financial literacy and awareness aspects of the financial inclusion agenda. Improved awareness and healthy financial behaviours ensure more active and effective uptake and usage of financial products and services, which in turn reflects in responsible enhancement of financial inclusion levels.

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ANNEX

A1 Theory of Change

Table A1 highlights the key outcomes the evaluation aimed to assess across the three main topics of savings, spending, and financial management. It has been split across short-term outcomes and medium-term impacts, since the team conducted the impact assessment surveys i) right after the campaign completion and ii) 3 months post the campaign completion. Long-term impacts could not be assessed within the scope of this evaluation due to the project time constraints and limited time available to present the evaluation findings.

Table A1: Desired Changes from Edutainment Campaign

		Women (aged 30-49 years) in both countries	Youth (aged 18-29 years) in both countries
Savings	Short-term outcomes	Increase in number of people who believe that saving is every adult's (both men and women) responsibility	Increase in number of people who believe saving is important
	Medium-term impacts	Increase in number of people who intend to open personal saving accounts in six-months' time has increased	Increase in the number of people who intend to open personal saving accounts in three months' time (nearest future) has increased. Increase in number of people who have decreased informal savings. Increase in number of people who have increased formal savings using their financial bank accounts/e-wallets.
Spending	Short-term outcomes	Increase in number of people who feel that reducing one's personal/ family spending on events/ feasts/ gifts will find support and approval of one's family/community members has increased.	Increase in number of people who believe that reducing one's personal/family spending on events/ feasts/ gifts for parties will find support and approval of one's family/community members has increased.
	Medium-term impacts	The number of those who intend to reduce one's/family's spending on events/ feasts/ gifts for parties (nearest future) has increased. ⁵	The number of those who intend to reduce one's/family's spending on events/ feasts/ gifts for parties (nearest future) has increased.

⁵ The evaluation will not directly survey influencers. However, it will ask the target groups about their perception of influencers, to understand if changes have occurred in attitudes among these groups. For example, if a beneficiary decides to save and plan her/his finances but her/his community/family do not support it, it will not be interpreted as "no impact" but rather that the beneficiary made changes (i.e. there was impact on target group), but they continue to experience resistance from the community/ family (i.e. this did not happen with support from influencer groups).

		The number of those who feel strong support in one's family and community to reduce spending on events/ feasts/ gifts for parties has increased. The number of those who have reduced one's/family's spending on events/ feasts/ gifts for parties during last 6 months has increased.	The number of those who feel strong support in one's family and community to reduce spending on events/ feasts/ gifts for parties has increased. The number of those who have reduced one's/family's spending on events/ feasts/ gifts for parties during last 6 months has increased.
Financial Management	Short-term outcomes	The number of those who feel banks are trustworthy has increased.	The number of those who feel strong support in one's community (family, social group, friends, and etc.) to become independent from
	Medium-term impacts	The number of those who intend to start using/ applying for financial products/services or digital financial products/services at FIs has increased. The number of those who opened accounts for financial products/services or digital financial products/services (any channel) has increased. The number of those who have already started to use financial products/services or digital financial products/services at FIs during the last two months has increased.	The number of those who want AND plan to start personal financial planning in six months' time has increased. The number of those who want AND plan to start to use/ apply formal financial services/ digital financial services in six months' time has increased. The number of those who opened accounts for financial products/ services or digital financial products / services (any channels) has increased. The number of those who have already started to use financial products/ services or digital financial products / services at FIs during the last two months has increased.

The impacts on beliefs, in juxtaposition with those on behaviors, do not paint a picture consistent with the theory of change developed at the inception of the program evaluation. Our theory of change, informed by a prior social norms study in the region, held that impacts would first transpire in the form of altered beliefs, then in the form of altered intentions, and finally in the form of behaviors. In our case, however, we have clear impacts on behaviors in the form of increased (or reallocated) saving balances, increased account ownership, and increased account usage, but a lack of impacts on beliefs upstream of those behaviors.

A2 Social Norms Diagnostic

Box 1: Social Norms diagnostic and Edutainment Campaign conducted in the Kyrgyz Republic and Tajikistan

Between 2020-21, the IFC CAFINC project conducted a social norms diagnostic in the Kyrgyz Republic and Tajikistan to better understand how social norms influence the savings, spending and financial planning behaviors among women and youth in both countries. Per the findings from the study, the team identified certain behaviors/ norms to be addressed via the edutainment campaign based on their stickiness and impact. The less sticky the norm, the easier it is to affect change over a shorter period, and the higher the impact they have, the more people it would affect. The following 6 behaviors were narrowed down based on these two factors of low stickiness and high impact:

Behavior 1: Not opening bank accounts (women and youth)

Behavior 2: Saving in secret (women)

Behavior 3: Overspending on events/feasts/gifts (women and youth)

Behavior 4: Not planning ahead financially (women and youth)

Behavior 5: Not tracking their finances (women and youth)

Behavior 6: Overspending on technology (youth)

The above behaviors can be broadly classified under 3 categories of social norms: Savings, Spending, and Financial Management. Some of the behaviors that the campaign aimed to influence have been listed below:

Saving:

Women should surrender their entire income to the families/ spouses, and have low financial agency: Women (and also female youth) should directly hand over their earnings to their husbands or mothers-in-law. This norm has been waning off late, but women of all ages are still expected to prioritize their families in their financial decisions (i.e., spending/ saving), resulting in them saving in secret)

Spending:

Women (and also youth) should spend beyond their means on events, and gifts (and this is done as a form of social safety/ insurance): Women's spending on events, feasts and gifts is largely driven by expectations set in social and cultural norms: In both countries, women agree that too much money is spent on such occasions but are unaware that other women feel the same, especially in the Kyrgyz Republic. A growing number of young people, especially urban youth, have started going against traditional expectations by being conscious about the events they attend and the amounts they spend on it.

Youth should spend beyond their means/ capacity (and not for productive purposes) on technology: this has been observed in both countries. Social pressure is the strongest influence on youth's expenditure on technology. Their interest in technology and inability to track their expenditures play a strong role too. Male youth in their late teens/early 20s, who are single and live with their parents are most strongly influenced by norms, and simultaneously play the role of the enabler.

Financial Management:

Women and youth should rely on family for support: this results in them seeing no need in maintaining personal savings; when women do save, their saving decisions are expected to be in agreement with their family.

Women should not be actively involved in making household financial decisions: Majority of women interviewed in both countries disagree that household financial decisions are a man's role.

Women do not need to have and maintain personal financial goals: Majority of women in both countries indicated having financial goals that they are actively working towards.

A3 Attrition

Table A2. Attrition by encouragement group

Group	Baseline	Midline	Endline
Non-Encouragement	731	467	296
	33.4%	34.2%	33.0%
Encouragement	1,456	899	602
	66.6%	65.8%	67.0%
Total	2,187	1,366	898

A4 OLS and IV estimates

TABLE A3. PROGRAMMATIC IMPACTS ON OUTCOMES, OLS AND IV

Outcome	OLS (T = encouragement)			IV (T = engaged with at least one campaign)				N
	<i>b</i>	<i>se</i>	<i>p-value</i>	<i>b</i>	<i>se</i>	<i>p-value</i>	<i>Relevance F-Stat</i>	
Women in your country should not use their own bank accounts and manage their finances without approval of her family	-0.016	0.128	0.904	-0.457	3.717	0.902	0.531	453

My community (neighborhood) expects women to not use bank accounts as that is a sign that they want financial independence	0.117	0.116	0.311	3.328	5.243	0.526	0.565	448
All the money that women earn should be given to the family to manage e.g., husbands or in-laws	-0.001	0.105	0.990	-0.054	4.380	0.990	0.266	454
My community expects women to give all of their earnings to their family to manage	-0.005	0.107	0.964	-0.154	3.318	0.963	0.457	449
The amount that people spend on events/feasts/gifts for parties is reasonable	-0.140	0.109	0.199	-3.531	4.819	0.464	0.710	450
Society expects women to spend a lot on events/feasts/gifts	-0.208	0.111	0.061	-5.588	7.667	0.466	0.640	451
Banks should not be trusted	0.015	0.108	0.890	0.465	3.438	0.892	0.477	452
Friends and family expect women to not use banks as they can't be trusted	0.010	0.096	0.919	0.216	2.191	0.922	0.946	452
Young people should keep up with the latest trends in technology	-0.023	0.071	0.748	-0.159	0.489	0.745	8.371	442
Young people generally expect their peers should keep up with the latest technology trends	0.076	0.078	0.332	0.514	0.537	0.338	9.015	443
Young people do not need to plan ahead financially because they rely on their family for financial support	-0.053	0.106	0.615	-0.370	0.721	0.608	8.478	441
Families expect young people to rely on them for financial support	-0.067	0.106	0.532	-0.443	0.726	0.542	9.304	442
The amount that people spend on events/feasts/gifts for parties is reasonable	0.175	0.108	0.106	1.274	0.944	0.177	7.643	443
Society expects young people to spend a lot on events/feasts/gifts	0.000	0.103	0.996	0.003	0.690	0.996	9.014	442

Has bank account	0.051	0.043	0.239	0.341	0.309	0.270	9.049	443
Account with credit union	0.019	0.016	0.238	0.132	0.134	0.327	8.795	443
Account with microfinance institution	-0.011	0.025	0.655	-0.078	0.177	0.657	8.625	443
Has Mobile Money Account/E-Wallet	-0.037	0.045	0.411	-0.253	0.323	0.432	8.787	443
No account anywhere	0.009	0.040	0.818	0.063	0.280	0.821	8.889	443
Over the last 2 months, did you transact at least once a month on average?	-0.055	0.033	0.099	-0.580	0.426	0.174	7.811	898
Could your household cover expenses for at least one week?	0.026	0.034	0.449	0.168	0.223	0.451	9.369	436
What proportion of income do you save? (1-10%=1, 11-20%=2, 21-30%=3, >30=4)	0.063	0.102	0.540	0.536	0.897	0.550	6.721	500
To what extent is it important or not to you to make contributions to events?	0.009	0.069	0.894	0.101	0.764	0.895	7.218	896
Has any account	-0.025	0.030	0.404	-0.272	0.352	0.440	7.541	898
Savings in formal financial accounts	-1,805.84	11,747.99	0.878	-18,522.69	105,226.00	0.860	4.275	458
Savings in informal financial accounts	4,386.44	10,042.46	0.662	41,915.00	93,526.77	0.654	4.906	465
Spending on technology	7,344.61	3,655.54	0.045	52,223.88	29,281.27	0.075	7.913	436
Spending on events	-1,125.76	3,855.64	0.770	-14,160.71	60,909.14	0.816	5.178	848
Decision-making power on purchases	-0.013	0.046	0.769	-0.358	1.241	0.773	0.649	454
Decision-making power on savings	-0.013	0.046	0.769	-0.358	1.241	0.773	0.649	454
Do you keep money in secret?	-0.039	0.085	0.645	0.445	1.099	0.685	0.817	129

Table A4. t-test p-values between treatment and control

Treatment: At least one campaign

U: Unmatched sample, M: Matched sample

Outcome	Outcome at baseline		Age		HH head		Married		HH size		Education		Events spending		Tech spending		Informal savings		Monthly income		Demo-graphic	
	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M
All the money that women earn should be given to the family to mage	0.08	1.00	0.12	1.00	0.93	0.78	0.47	1.00	0.29	0.59	0.03	0.73	0.03	0.94		1.00	0.08	0.42	0.03	0.37	0.00	1.00
Banks should not be trusted	0.12	1.00	0.08	0.76	0.93	1.00	0.38	1.00	0.32	0.97	0.07	0.53	0.04	0.94		1.00	0.07	0.44	0.02	0.70	0.00	1.00
Decisionmaking power on purchases (Likert scale)	0.65	1.00	0.12	0.88	0.93	0.32	0.47	1.00	0.29	0.65	0.03	0.83	0.03	0.54		1.00	0.08	0.92	0.03	0.68	0.00	1.00
Decisionmaking power on savings (Likert scale)	0.04	1.00	0.11	1.00	0.91	0.89	0.47	1.00	0.29	0.63	0.03	0.83	0.03	0.92		1.00	0.08	0.74	0.03	0.94	0.00	1.00
Decreased formal savings from baseline	0.76	1.00	0.01	0.35	0.18	1.00	0.72	1.00	0.98	0.86	0.31	0.84	0.00	0.18	0.76	0.67	0.92	0.45	0.95	0.16	0.16	1.00
Decreased informal savings from baseline	0.72	1.00	0.02	0.75	0.08	0.64	0.46	1.00	0.26	0.82	0.20	0.55	0.01	0.24	0.79	0.68	0.90	0.54	0.82	0.24	0.25	1.00
Decreased total savings from baseline	0.74	1.00	0.02	0.86	0.10	0.74	0.55	1.00	0.50	0.18	0.23	0.74	0.00	0.44	0.49	0.65	0.57	0.13	0.89	0.14	0.20	1.00
Do you have money saved that is a secret from your family?	0.15	1.00	0.73	0.64	0.83	0.64	0.69	1.00	0.61	0.75	0.37	0.28	0.93	0.61		1.00	0.82	0.68	0.59	0.45	0.29	1.00
Families expect young people to rely on them for fincial support	0.33	1.00	0.01	0.39	0.24	0.89	0.09	1.00	0.95	0.34	0.56	1.00	0.00	0.60	0.56	0.15	0.89	0.75	0.76	0.72	0.78	1.00
Formal savings balance (2022USD)	0.12	0.95	0.01	0.64	0.18	0.88	0.72	1.00	0.98	0.60	0.31	0.74	0.00	0.29	0.76	0.81	0.92	0.31	0.95	0.18	0.16	1.00
Friends/family expect women to not use banks as they can't be trusted	0.01	1.00	0.14	0.88	0.99	0.66	0.54	1.00	0.26	0.73	0.02	0.79	0.03	0.87		1.00	0.08	0.65	0.04	0.79	0.00	1.00
Has an e-wallet	0.00	1.00	0.00	0.75	0.52	0.56	0.75	1.00	0.67	0.89	0.02	0.83	0.00	0.98	0.60	0.86	0.25	1.00	0.11	0.52	0.10	1.00
Has any account	0.00	1.00	0.00	0.75	0.52	0.85	0.75	1.00	0.67	0.56	0.02	0.88	0.00	0.61	0.60	0.85	0.25	0.77	0.11	0.74	0.10	1.00
Has any formal savings	0.01	1.00	0.01	0.53	0.18	0.77	0.72	1.00	0.98	0.67	0.31	0.77	0.00	0.27	0.76	0.78	0.92	0.40	0.95	0.31	0.16	1.00
Has any informal savings	0.30	1.00	0.02	1.00	0.08	0.65	0.46	1.00	0.26	0.91	0.20	0.51	0.01	0.37	0.79	0.88	0.90	0.41	0.82	0.48	0.25	1.00
Has any savings, regardless of source	0.30	1.00	0.01	0.46	0.12	0.67	0.58	1.00	0.47	0.51	0.26	0.82	0.00	0.42	0.99	0.87	0.67	0.26	0.96	0.22	0.19	1.00
Increased formal savings from baseline	0.76	1.00	0.01	0.87	0.18	0.88	0.72	1.00	0.98	0.97	0.31	0.31	0.00	0.22	0.76	0.70	0.92	0.25	0.95	0.29	0.16	1.00
Increased informal savings from baseline	0.72	1.00	0.02	0.87	0.08	0.76	0.46	1.00	0.26	0.42	0.20	0.41	0.01	0.38	0.79	0.68	0.90	0.42	0.82	0.23	0.25	1.00
Increased total savings from baseline	0.74	1.00	0.02	0.61	0.10	0.62	0.55	1.00	0.50	0.25	0.23	0.79	0.00	0.43	0.49	0.65	0.57	0.05	0.89	0.16	0.20	1.00
Informal savings balance (2022USD)	0.90	0.32	0.02	0.44	0.08	0.66	0.46	1.00	0.26	0.48	0.20	0.40	0.01	0.45	0.79	0.64	0.90	0.32	0.82	0.23	0.25	1.00
My community expects women to give all their earnings to their family to mage	0.07	1.00	0.15	0.88	0.85	0.30	0.47	1.00	0.42	0.67	0.02	1.00	0.04	0.86		1.00	0.01	0.74	0.03	0.14	0.00	1.00
My community expects women to not use bank accounts (sign they want fincial independence)	0.06	1.00	0.14	1.00	0.85	0.88	0.67	1.00	0.35	0.91	0.02	0.36	0.05	1.00		1.00	0.01	0.67	0.02	0.49	0.00	1.00
Opened a new account in last 3 months	0.25	1.00	0.01	0.52	0.22	1.00	0.99	1.00	0.16	0.45	0.10	0.88	0.00	0.82	0.45	0.83	0.49	0.80	0.18	0.97	0.61	1.00
Society expects women to spend a lot on events/feasts/gifts	0.73	1.00	0.11	0.64	0.95	0.66	0.47	1.00	0.28	0.68	0.03	0.93	0.03	0.88		1.00	0.07	0.48	0.02	0.48	0.00	1.00
Society expects young people to spend a lot on events/feasts/gifts	0.17	1.00	0.00	0.31	0.20	0.89	0.09	1.00	0.95	0.35	0.50	0.37	0.00	0.74	0.54	0.13	0.87	0.30	0.75	0.79	0.74	1.00
Spending on events (2022USD)	0.00	0.11	0.00	0.74	0.78	0.09	0.42	1.00	0.96	0.65	0.02	0.46	0.00	0.11	0.45	0.81	0.28	0.87	0.14	0.26	0.11	1.00
Spending on technology (2022USD)	0.51	0.32	0.01	0.88	0.21	1.00	0.09	1.00	0.86	0.24	0.62	0.40	0.00	0.20	0.51	0.32	0.88	0.94	0.91	0.86	0.86	1.00
The amount people spend on events/feasts/gifts for parties is reasoble	0.42	1.00	0.06	1.00	0.94	0.56	0.66	1.00	0.24	0.38	0.05	0.90	0.07	0.91		1.00	0.07	0.65	0.05	0.35	0.00	1.00
The amount that people spend on events/feasts/gifts for parties is reasoble	0.19	1.00	0.01	0.65	0.20	0.42	0.07	1.00	0.97	0.79	0.56	0.55	0.00	0.73	0.57	0.66	0.91	0.95	0.76	0.48	0.81	1.00
Total savings, all sources (2022USD)	0.09	0.20	0.02	0.51	0.10	0.88	0.55	1.00	0.50	0.13	0.23	0.57	0.00	0.06	0.49	0.35	0.57	0.10	0.89	0.25	0.20	1.00
Transactions per month	0.06	1.00	0.00	0.40	0.53	0.70	0.76	1.00	0.72	0.55	0.01	0.58	0.00	0.91	0.57	0.77	0.25	0.60	0.09	0.78	0.09	1.00
What proportion of income do you save? (1-10%=1, 11-20%=2, 21-30%=3, >30=4)	0.48	1.00	0.00	0.87	0.08	0.18	0.83	1.00	0.74	0.23	0.20	0.44	0.00	0.06	0.73	0.95	0.79	0.13	0.79	0.14	0.43	1.00
Women should not use their own bank accounts & mage their finces without family approval	0.48	1.00	0.13	0.88	0.93	0.89	0.47	1.00	0.36	1.00	0.03	0.70	0.03	0.98		1.00	0.12	0.90	0.03	0.73	0.00	1.00
Young people do not need to plan ahead fincially because of family support	0.27	1.00	0.00	0.56	0.26	0.89	0.08	1.00	0.91	0.44	0.49	0.76	0.00	0.51	0.54	0.39	0.89	0.39	0.72	0.72	0.85	1.00
Young people generally expect their peers should keep up with the latest technology trends	0.32	1.00	0.00	0.88	0.21	0.68	0.08	1.00	0.95	0.56	0.49	0.82	0.00	0.86	0.54	0.49	0.90	0.54	0.74	0.51	0.83	1.00
Young people should keep up with the latest trends in technology	0.52	1.00	0.00	0.76	0.23	0.68	0.08	1.00	0.93	0.43	0.50	0.84	0.00	0.52	0.59	0.16	0.88	0.56	0.81	0.97	0.77	1.00

Table A5. t-test p-values between treatment and control

Treatment: At least two campaigns

U: Unmatched, M: Matched

Outcome	Outcome at baseline		Age		HH head		Married		HH size		Education		Events spending		Tech spending		Informal savings		Monthly income		Demographic	
	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M
All the money that women earn should be given to the family to mage	0.14	1.00	0.29	0.55	0.77	0.80	0.32	1.00	0.05	0.68	0.05	0.76	0.20	0.96		1.00	0.00	0.65	0.11	0.64	0.01	1.00
Banks should not be trusted	0.87	1.00	0.31	0.77	0.69	0.61	0.36	1.00	0.04	1.00	0.05	0.69	0.23	0.82		1.00	0.00	0.66	0.13	0.85	0.01	1.00
Decisionmaking power on purchases (Likert scale)	0.75	1.00	0.29	0.77	0.77	1.00	0.32	1.00	0.05	0.75	0.05	0.70	0.20	0.60		1.00	0.00	0.69	0.11	0.60	0.01	1.00
Decisionmaking power on savings (Likert scale)	0.54	1.00	0.28	1.00	0.78	0.80	0.32	1.00	0.05	1.00	0.05	0.66	0.20	0.58		1.00	0.00	0.92	0.11	1.00	0.02	1.00
Decreased formal savings from baseline	0.58	1.00	0.02	0.76	0.20	0.63	0.45	1.00	0.86	0.62	0.52	0.67	0.00	0.85	0.02	0.99	0.57	1.00	0.28	0.88	0.65	1.00
Decreased informal savings from baseline	0.69	1.00	0.05	0.53	0.23	0.44	0.39	1.00	0.31	0.81	0.55	0.74	0.00	0.55	0.05	0.96	0.53	0.90	0.30	0.84	0.90	1.00
Decreased total savings from baseline	0.52	1.00	0.06	1.00	0.41	0.43	0.35	1.00	0.47	0.91	0.61	0.60	0.00	0.32	0.02	0.77	0.30	0.36	0.26	0.95	0.78	1.00
Do you have money saved that is a secret from your family?	0.27	1.00	0.65	1.00	0.56	0.69	0.50	1.00	0.48	1.00	0.34	1.00	0.80	0.67		1.00	0.01	0.87	0.52	0.86	0.19	1.00
Families expect young people to rely on them for fincial support	0.78	1.00	0.00	1.00	0.05	0.63	0.46	1.00	0.80	0.63	0.01	0.71	0.00	0.43	0.04	0.95	0.46	0.59	0.12	0.50	0.63	1.00
Formal savings balance (2022USD)	0.02	0.86	0.02	0.76	0.20	1.00	0.45	1.00	0.86	0.96	0.52	0.60	0.00	0.47	0.02	0.99	0.57	0.84	0.28	0.98	0.65	1.00
Friends/family expect women to not use banks as they can't be trusted	0.36	1.00	0.28	1.00	0.80	0.80	0.34	1.00	0.06	0.53	0.05	1.00	0.22	0.79		1.00	0.00	0.48	0.13	0.66	0.02	1.00
Has an e-wallet	0.01	1.00	0.00	0.83	0.10	0.86	0.65	1.00	0.16	0.70	0.00	0.77	0.00	0.82	0.02	0.98	0.01	0.95	0.02	0.89	0.23	1.00
Has any account	0.01	1.00	0.00	1.00	0.10	1.00	0.65	1.00	0.16	0.87	0.00	0.86	0.00	0.75	0.02	0.98	0.01	0.97	0.02	0.79	0.23	1.00
Has any formal savings	0.11	1.00	0.02	0.57	0.20	1.00	0.45	1.00	0.86	0.65	0.52	0.78	0.00	0.66	0.02	0.98	0.57	0.68	0.28	0.61	0.65	1.00
Has any informal savings	0.41	1.00	0.05	0.77	0.23	0.80	0.39	1.00	0.31	0.48	0.55	1.00	0.00	0.33	0.05	0.95	0.53	0.72	0.30	0.84	0.90	1.00
Has any savings, regardless of source	0.11	1.00	0.02	1.00	0.09	1.00	0.49	1.00	0.58	0.82	0.46	0.61	0.00	0.85	0.03	0.96	0.79	0.82	0.33	0.51	0.55	1.00
Increased formal savings from baseline	0.58	1.00	0.02	0.76	0.20	1.00	0.45	1.00	0.86	0.76	0.52	0.58	0.00	0.91	0.02	0.96	0.57	0.99	0.28	0.94	0.65	1.00
Increased informal savings from baseline	0.69	1.00	0.05	1.00	0.23	0.44	0.39	1.00	0.31	0.66	0.55	1.00	0.00	0.44	0.05	0.74	0.53	0.29	0.30	0.97	0.90	1.00
Increased total savings from baseline	0.52	1.00	0.06	1.00	0.41	0.28	0.35	1.00	0.47	0.70	0.61	0.44	0.00	0.49	0.02	0.74	0.30	0.40	0.26	0.90	0.78	1.00
Informal savings balance (2022USD)	0.53	0.30	0.05	0.53	0.23	1.00	0.39	1.00	0.31	0.52	0.55	0.67	0.00	0.26	0.05	0.96	0.53	0.30	0.30	0.44	0.90	1.00
My community expects women to give all their earnings to their family to mage	0.29	1.00	0.34	0.78	0.68	1.00	0.32	1.00	0.08	0.45	0.04	0.59	0.30	0.89		1.00	0.00	0.97	0.16	0.30	0.03	1.00
My community expects women to not use bank accounts (sign they want fincial independence)	0.24	1.00	0.40	0.78	0.86	1.00	0.30	1.00	0.09	0.87	0.03	1.00	0.23	0.84		1.00	0.00	0.87	0.11	0.94	0.01	1.00
Opened a new account in last 3 months	0.12	1.00	0.07	0.81	0.01	1.00	0.49	1.00	0.45	0.87	0.01	0.95	0.00	0.77	0.00	0.97	0.06	0.84	0.13	0.94	0.86	1.00
Society expects women to spend a lot on events/feasts/gifts	0.14	1.00	0.29	0.77	0.81	0.30	0.32	1.00	0.05	0.58	0.05	0.77	0.22	0.79		1.00	0.00	0.16	0.13	0.83	0.02	1.00
Society expects young people to spend a lot on events/feasts/gifts	0.01	1.00	0.00	1.00	0.04	0.81	0.46	1.00	0.80	0.69	0.01	0.60	0.00	0.68	0.04	0.79	0.47	0.95	0.12	0.91	0.61	1.00
Spending on events (2022USD)	0.00	0.54	0.01	1.00	0.08	1.00	0.51	1.00	0.17	0.96	0.00	0.50	0.00	0.54	0.09	0.96	0.04	0.83	0.05	0.87	0.31	1.00
Spending on technology (2022USD)	0.05	0.89	0.00	0.50	0.04	0.48	0.44	1.00	0.81	0.96	0.01	0.55	0.00	0.76	0.05	0.89	0.51	0.75	0.11	0.91	0.64	1.00
The amount people spend on events/feasts/gifts for parties is reasoble	0.75	1.00	0.33	1.00	0.71	1.00	0.29	1.00	0.06	1.00	0.05	0.66	0.19	0.68		1.00	0.00	0.97	0.10	0.55	0.01	1.00
The amount that people spend on events/feasts/gifts for parties is reasoble	0.03	1.00	0.00	0.50	0.04	1.00	0.43	1.00	0.79	0.62	0.01	0.53	0.00	0.83	0.04	0.84	0.45	0.88	0.12	0.79	0.64	1.00
Total savings, all sources (2022USD)	0.01	0.61	0.06	0.77	0.41	1.00	0.35	1.00	0.47	1.00	0.61	0.85	0.00	0.32	0.02	0.95	0.30	0.47	0.26	0.81	0.78	1.00
Transactions per month	0.01	1.00	0.00	0.67	0.12	1.00	0.68	1.00	0.20	0.80	0.00	0.56	0.00	0.85	0.03	0.97	0.01	0.92	0.01	0.62	0.20	1.00
What proportion of income do you save? (1-10%=1, 11-20%=2, 21-30%=3, >30=4)	0.53	1.00	0.03	0.76	0.09	0.62	0.52	1.00	0.60	0.86	0.58	0.64	0.00	0.86		0.16	0.95	0.85	0.67	0.85	0.52	1.00
Women should not use their own bank accounts & mage their finces without family approval	0.94	1.00	0.34	0.78	0.69	0.61	0.32	1.00	0.07	1.00	0.07	0.71	0.26	0.86		1.00	0.00	0.84	0.13	0.82	0.02	1.00
Young people do not need to plan ahead fincially because of family support	0.21	1.00	0.00	1.00	0.05	0.81	0.45	1.00	0.81	0.88	0.01	0.70	0.00	0.88	0.04	0.96	0.46	0.62	0.12	0.51	0.66	1.00
Young people generally expect their peers should keep up with the latest technology trends	0.90	1.00	0.00	0.72	0.08	0.46	0.56	1.00	0.94	0.41	0.01	0.48	0.00	0.75	0.06	0.69	0.50	0.49	0.13	0.60	0.77	1.00
Young people should keep up with the latest trends in technology	0.34	1.00	0.00	0.33	0.05	0.62	0.45	1.00	0.81	0.35	0.01	0.50	0.00	0.68	0.04	0.29	0.46	0.83	0.11	0.43	0.62	1.00

Table A6. Normalized difference between treatment and control

Treatment: At least one campaign

U: Unmatched, M: Matched

Outcome	Outcome at baseline		Age		HH head		Married		HH size		Education		Events spending		Tech spending		Informal savings		Monthly income		Demographic	
	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M
All the money that women earn should be given to the family to mage	-0.14	0.00	0.13	0.00	-0.01	0.03	-0.06	0.00	-0.09	0.05	0.18	0.03	0.16	0.01			0.14	0.08	0.18	0.09	-0.38	0.00
Banks should not be trusted	-0.13	0.00	0.15	0.03	-0.01	0.00	-0.07	0.00	-0.08	0.00	0.15	-0.06	0.16	0.01			0.15	0.08	0.19	0.04	-0.38	0.00
Decisionmaking power on purchases (Likert scale)	0.04	0.00	0.13	0.01	-0.01	0.10	-0.06	0.00	-0.09	-0.04	0.18	0.02	0.16	-0.06			0.14	0.01	0.18	0.04	-0.38	0.00
Decisionmaking power on savings (Likert scale)	0.17	0.00	0.13	0.00	-0.01	-0.01	-0.06	0.00	-0.09	-0.05	0.18	-0.02	0.16	0.01			0.14	0.03	0.17	-0.01	-0.38	0.00
Decreased formal savings from baseline	0.03	0.00	0.25	0.10	0.12	0.00	-0.03	0.00	0.00	-0.02	0.09	-0.02	0.27	0.14	0.03	-0.04	-0.01	-0.08	-0.01	-0.14	0.13	0.00
Decreased informal savings from baseline	0.03	0.00	0.21	0.03	0.16	0.05	-0.07	0.00	-0.10	0.02	0.12	-0.06	0.22	0.12	0.02	0.04	0.01	0.07	0.02	-0.13	0.10	0.00
Decreased total savings from baseline	0.03	0.00	0.22	0.02	0.15	-0.04	-0.06	0.00	-0.06	0.15	0.12	-0.04	0.26	0.09	0.06	0.05	0.06	0.17	0.01	-0.17	0.12	0.00
Do you have money saved that is a secret from your family?	0.21	0.00	-0.05	-0.07	0.03	0.07	-0.06	0.00	0.07	0.05	0.13	0.17	0.01	0.08			0.03	-0.06	0.08	0.12	-0.15	0.00
Families expect young people to rely on them for fancial support	0.08	0.00	0.24	0.08	0.10	0.01	0.14	0.00	0.01	0.09	0.05	0.00	0.27	0.05	-0.05	-0.13	-0.01	0.03	-0.03	-0.03	-0.02	0.00
Formal savings balance (2022USD)	0.13	0.01	0.25	0.05	0.12	0.01	-0.03	0.00	0.00	0.05	0.09	-0.03	0.27	0.11	0.03	-0.02	-0.01	-0.10	-0.01	-0.14	0.13	0.00
Friends/family expect women to not use banks as they can't be trusted	-0.23	0.00	0.12	-0.02	0.00	0.04	-0.05	0.00	-0.10	-0.03	0.20	-0.03	0.16	0.02			0.14	-0.04	0.16	0.03	-0.37	0.00
Has an e-wallet	0.17	0.00	0.18	0.02	0.04	0.04	-0.02	0.00	-0.02	0.01	0.14	-0.01	0.22	0.00	-0.03	-0.01	0.07	0.00	0.09	0.04	-0.09	0.00
Has any account	0.17	0.00	0.18	0.02	0.04	0.01	-0.02	0.00	-0.02	0.04	0.14	-0.01	0.22	0.03	-0.03	-0.01	0.07	0.02	0.09	0.02	-0.09	0.00
Has any formal savings	0.22	0.00	0.25	0.06	0.12	0.03	-0.03	0.00	0.00	0.04	0.09	-0.03	0.27	0.11	0.03	-0.03	-0.01	-0.09	-0.01	-0.10	0.13	0.00
Has any informal savings	0.10	0.00	0.21	0.00	0.16	0.05	-0.07	0.00	-0.10	0.01	0.12	-0.07	0.22	0.09	0.02	0.02	0.01	-0.09	0.02	-0.07	0.10	0.00
Has any savings, regardless of source	0.09	0.00	0.24	0.07	0.13	0.04	-0.05	0.00	-0.06	0.06	0.10	-0.02	0.23	0.08	0.00	0.02	-0.04	-0.11	0.00	-0.12	0.11	0.00
Increased formal savings from baseline	0.03	0.00	0.25	0.02	0.12	0.02	-0.03	0.00	0.00	0.00	0.09	-0.10	0.27	0.13	0.03	-0.04	-0.01	-0.12	-0.01	-0.11	0.13	0.00
Increased informal savings from baseline	0.03	0.00	0.21	0.02	0.16	-0.03	-0.07	0.00	-0.10	0.09	0.12	0.09	0.22	0.09	0.02	0.04	0.01	0.09	0.02	-0.13	0.10	0.00
Increased total savings from baseline	0.03	0.00	0.22	0.06	0.15	-0.06	-0.06	0.00	-0.06	0.13	0.12	-0.03	0.26	0.09	0.06	0.05	0.06	0.22	0.01	-0.16	0.12	0.00
Informal savings balance (2022USD)	0.01	-0.10	0.21	0.08	0.16	-0.05	-0.07	0.00	-0.10	0.07	0.12	-0.09	0.22	0.08	0.02	0.05	0.01	-0.10	0.02	-0.12	0.10	0.00
My community expects women to give all their earnings to their family to mage	-0.15	0.00	0.12	0.02	-0.02	0.10	-0.06	0.00	-0.07	-0.04	0.19	0.00	0.15	-0.02			0.21	0.03	0.18	0.15	-0.38	0.00
My community expects women to not use bank accounts (sign they want fancial independence)	-0.16	0.00	0.12	0.00	-0.02	0.01	-0.04	0.00	-0.08	-0.01	0.20	0.09	0.15	0.00			0.20	-0.04	0.19	0.07	-0.40	0.00
Opened a new account in last 3 months	0.08	0.00	0.18	0.05	0.09	0.00	0.00	0.00	-0.10	0.06	0.12	0.01	0.21	0.02	0.05	-0.02	0.05	0.02	0.10	0.00	-0.04	0.00
Society expects women to spend a lot on events/feasts/gifts	0.03	0.00	0.14	0.05	0.00	0.04	-0.06	0.00	-0.09	-0.04	0.18	-0.01	0.16	0.02			0.15	0.07	0.19	0.07	-0.39	0.00
Society expects young people to spend a lot on events/feasts/gifts	-0.11	0.00	0.24	0.09	0.11	-0.01	0.14	0.00	0.01	0.09	0.06	-0.08	0.28	-0.03	-0.05	-0.14	-0.01	-0.10	-0.03	0.02	-0.03	0.00
Spending on events (2022USD)	0.24	0.11	0.19	0.02	0.02	0.12	-0.05	0.00	0.00	0.03	0.14	-0.05	0.24	0.11	-0.05	-0.02	0.07	-0.01	0.09	-0.08	-0.10	0.00
Spending on technology (2022USD)	-0.06	0.09	0.23	-0.01	0.11	0.00	0.14	0.00	0.02	0.11	0.04	-0.08	0.29	0.12	-0.06	0.09	-0.01	0.01	-0.01	-0.02	-0.01	0.00
The amount people spend on events/feasts/gifts for parties is reasoble	-0.07	0.00	0.16	0.00	-0.01	0.06	-0.04	0.00	-0.10	-0.09	0.16	0.01	0.13	0.01			0.15	0.04	0.16	0.09	-0.37	0.00
The amount that people spend on events for parties is reasoble	-0.11	0.00	0.23	-0.04	0.11	0.07	0.15	0.00	0.00	0.02	0.05	-0.05	0.28	0.03	-0.05	-0.04	-0.01	0.01	-0.03	-0.06	-0.02	0.00
Total savings, all sources (2022USD)	0.16	0.14	0.22	0.07	0.15	-0.02	-0.06	0.00	-0.06	0.17	0.12	-0.06	0.26	0.21	0.06	0.10	0.06	0.18	0.01	-0.12	0.12	0.00
Transactions per month	0.10	0.00	0.18	0.06	0.04	0.03	-0.02	0.00	-0.02	0.04	0.14	-0.04	0.22	0.01	-0.03	-0.02	0.07	0.03	0.10	0.02	-0.10	0.00
What proportion of income do you save? (1-10%=1, 11-20%=2, 21-30%=3, >30=4)	-0.06	0.00	0.25	0.02	0.15	0.14	-0.02	0.00	-0.03	0.12	0.11	-0.08	0.24	0.19	-0.03	0.01	-0.02	-0.15	-0.02	-0.15	0.07	0.00
Women should not use their own bank accounts & mage their finces without family approval	-0.06	0.00	0.12	-0.02	-0.01	0.01	-0.06	0.00	-0.08	0.00	0.18	-0.04	0.16	0.00			0.13	0.01	0.17	0.03	-0.37	0.00
Young people do not need to plan ahead fancially because of family support	-0.09	0.00	0.24	0.05	0.09	0.01	0.15	0.00	0.01	0.07	0.06	0.03	0.27	0.06	-0.05	-0.08	-0.01	0.08	-0.03	-0.03	-0.02	0.00
Young people generally expect their peers should keep up with the latest technology trends	0.08	0.00	0.24	0.01	0.10	0.04	0.15	0.00	0.01	0.05	0.06	-0.02	0.28	-0.02	-0.05	-0.06	-0.01	-0.06	-0.03	-0.06	-0.02	0.00
Young people should keep up with the latest trends in technology	0.05	0.00	0.24	0.03	0.10	0.04	0.15	0.00	0.01	0.07	0.06	0.02	0.28	-0.06	-0.05	-0.13	-0.01	0.05	-0.02	0.00	-0.02	0.00

Table A7. Normalized difference between treatment and control

Treatment: At least two campaigns

U: Unmatched, M: Matched

Outcome	Outcome at baseline		Age		HH head		Married		HH size		Education		Events spending		Tech spending		Informal savings		Monthly income		Demographic	
	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M	U	M
All the money that women earn should be given to the family to mage	-0.19	0.00	0.14	-0.10	0.04	0.04	-0.13	0.00	-0.28	-0.07	0.26	0.05	0.13	-0.01			0.34	0.08	0.20	0.08	-0.32	0.00
Banks should not be trusted	-0.02	0.00	0.14	-0.05	0.05	0.09	-0.12	0.00	-0.30	0.00	0.25	-0.07	0.12	-0.04			0.34	0.08	0.19	0.03	-0.32	0.00
Decisionmaking power on purchases (Likert scale)	-0.04	0.00	0.14	-0.05	0.04	0.00	-0.13	0.00	-0.28	-0.06	0.26	0.07	0.13	0.09			0.34	0.07	0.20	0.09	-0.32	0.00
Decisionmaking power on savings (Likert scale)	0.08	0.00	0.14	0.00	0.04	0.04	-0.13	0.00	-0.28	0.00	0.25	-0.08	0.13	0.10			0.34	-0.02	0.20	0.00	-0.32	0.00
Decreased formal savings from baseline	0.07	0.00	0.32	-0.05	0.16	0.08	-0.10	0.00	-0.02	-0.09	0.09	-0.07	0.37	0.03	0.25	0.00	0.08	0.00	0.13	0.03	0.06	0.00
Decreased informal savings from baseline	0.05	0.00	0.27	-0.11	0.16	0.14	-0.12	0.00	-0.14	-0.04	0.08	-0.06	0.32	0.11	0.20	0.01	0.09	0.02	0.12	-0.04	-0.02	0.00
Decreased total savings from baseline	0.09	0.00	0.27	0.00	0.11	0.15	-0.13	0.00	-0.10	-0.02	0.07	-0.10	0.35	0.18	0.23	0.05	0.15	0.17	0.14	-0.01	-0.04	0.00
Do you have money saved that is a secret from your family?	-0.24	0.00	0.10	0.00	0.12	0.11	-0.15	0.00	0.15	0.00	0.21	0.00	0.05	-0.12			0.40	0.04	0.15	0.05	-0.28	0.00
Families expect young people to rely on them for fancial support	0.03	0.00	0.43	0.00	0.24	0.08	0.10	0.00	-0.03	0.08	0.33	0.06	0.46	0.13	0.24	0.01	0.09	-0.09	0.19	-0.11	-0.06	0.00
Formal savings balance (2022USD)	0.24	0.03	0.32	-0.05	0.16	0.00	-0.10	0.00	-0.02	0.01	0.09	-0.09	0.37	0.12	0.25	0.00	0.08	-0.04	0.13	0.00	0.06	0.00
Friends/family expect women to not use banks as they can't be trusted	-0.13	0.00	0.14	0.00	0.03	0.05	-0.13	0.00	-0.27	-0.11	0.25	0.00	0.12	0.05			0.34	0.13	0.19	0.08	-0.31	0.00
Has an e-wallet	0.24	0.00	0.28	0.03	0.15	-0.02	-0.04	0.00	-0.13	0.05	0.30	0.04	0.32	0.03	0.18	0.00	0.23	0.01	0.20	0.02	-0.10	0.00
Has any account	0.24	0.00	0.28	0.00	0.15	0.00	-0.04	0.00	-0.13	0.02	0.30	0.02	0.32	0.04	0.18	0.00	0.23	0.00	0.20	0.03	-0.10	0.00
Has any formal savings	0.21	0.00	0.32	0.10	0.16	0.00	-0.10	0.00	-0.02	-0.08	0.09	-0.05	0.37	0.08	0.25	0.01	0.08	-0.07	0.13	-0.09	0.06	0.00
Has any informal savings	0.12	0.00	0.27	0.05	0.16	0.05	-0.12	0.00	-0.14	-0.13	0.08	0.00	0.32	0.17	0.20	0.01	0.09	-0.07	0.12	0.04	-0.02	0.00
Has any savings, regardless of source	0.24	0.00	0.32	0.00	0.21	0.00	-0.09	0.00	-0.07	0.04	0.10	-0.09	0.34	-0.03	0.23	0.01	0.04	-0.04	0.11	-0.11	0.07	0.00
Increased formal savings from baseline	0.07	0.00	0.32	-0.05	0.16	0.00	-0.10	0.00	-0.02	-0.05	0.09	-0.10	0.37	-0.02	0.25	0.01	0.08	0.00	0.13	0.01	0.06	0.00
Increased informal savings from baseline	0.05	0.00	0.27	0.00	0.16	0.14	-0.12	0.00	-0.14	0.08	0.08	0.00	0.32	0.14	0.20	0.06	0.09	0.19	0.12	0.01	-0.02	0.00
Increased total savings from baseline	0.09	0.00	0.27	0.00	0.11	0.20	-0.13	0.00	-0.10	0.07	0.07	-0.14	0.35	0.13	0.23	0.06	0.15	0.15	0.14	-0.02	-0.04	0.00
Informal savings balance (2022USD)	0.09	0.19	0.27	-0.11	0.16	0.00	-0.12	0.00	-0.14	0.12	0.08	-0.08	0.32	0.20	0.20	0.01	0.09	0.19	0.12	-0.14	-0.02	0.00
My community expects women to give all their earnings to their family to mage	-0.14	0.00	0.13	0.05	0.05	0.00	-0.13	0.00	-0.26	-0.13	0.28	0.10	0.10	-0.02			0.37	-0.01	0.18	0.18	-0.29	0.00
My community expects women to not use bank accounts (sign they want fancial independence)	-0.16	0.00	0.11	0.05	0.02	0.00	-0.14	0.00	-0.25	-0.03	0.29	0.00	0.12	0.04			0.36	0.03	0.20	0.01	-0.33	0.00
Opened a new account in last 3 months	0.16	0.00	0.20	-0.04	0.27	0.00	0.08	0.00	-0.08	0.02	0.29	0.01	0.29	0.04	0.27	0.01	0.19	0.03	0.16	0.01	0.02	0.00
Society expects women to spend a lot on events/feasts/gifts	0.20	0.00	0.14	-0.05	0.03	0.18	-0.13	0.00	-0.28	-0.10	0.26	0.05	0.12	-0.05			0.34	0.25	0.19	0.04	-0.31	0.00
Society expects young people to spend a lot on events/feasts/gifts	-0.31	0.00	0.44	0.00	0.24	0.04	0.10	0.00	-0.03	0.07	0.34	0.09	0.46	0.07	0.23	0.04	0.09	-0.01	0.19	0.02	-0.06	0.00
Spending on events (2022USD)	0.31	0.08	0.29	0.00	0.16	0.00	-0.07	0.00	-0.14	-0.01	0.34	0.09	0.31	0.08	0.14	0.01	0.19	0.03	0.18	0.02	-0.09	0.00
Spending on technology (2022USD)	0.23	0.02	0.41	0.11	0.25	0.12	0.10	0.00	-0.03	0.01	0.34	0.10	0.46	0.05	0.23	0.02	0.08	0.05	0.19	-0.02	-0.06	0.00
The amount people spend on events/feasts/gifts for parties is reasoble	-0.04	0.00	0.13	0.00	0.05	0.00	-0.14	0.00	-0.28	0.00	0.26	-0.08	0.13	-0.07			0.34	-0.01	0.20	0.11	-0.32	0.00
The amount that people spend on events is reasoble	-0.28	0.00	0.42	0.11	0.24	0.00	0.10	0.00	-0.03	0.08	0.33	0.11	0.46	0.04	0.24	-0.03	0.09	-0.03	0.19	0.05	-0.06	0.00
Total savings, all sources (2022USD)	0.29	0.09	0.27	0.05	0.11	0.00	-0.13	0.00	-0.10	0.00	0.07	-0.03	0.35	0.18	0.23	0.01	0.15	-0.13	0.14	0.04	-0.04	0.00
Transactions per month	0.20	0.00	0.28	0.05	0.14	0.00	-0.04	0.00	-0.12	0.03	0.30	0.07	0.31	-0.02	0.17	0.00	0.22	-0.01	0.21	0.06	-0.11	0.00
What proportion of income do you save? (1-10%=1, 11-20%=2, 21-30%=3, >30=4)	0.08	0.00	0.30	0.05	0.21	0.09	-0.09	0.00	-0.07	-0.03	0.07	0.08	0.31	0.03	0.16	0.01	0.03	0.12	0.05	0.03	0.08	0.00
Women should not use their own bank accounts & mage their finces without family approval	-0.01	0.00	0.13	0.05	0.05	0.09	-0.13	0.00	-0.27	0.00	0.24	-0.07	0.11	0.03			0.31	0.03	0.19	0.04	-0.30	0.00
Young people do not need to plan ahead fancially because of family support	-0.15	0.00	0.43	0.00	0.24	-0.04	0.10	0.00	-0.03	-0.03	0.34	0.07	0.46	0.03	0.23	-0.01	0.09	-0.09	0.18	0.11	-0.06	0.00
Young people generally expect their peers should keep up with the latest technology trends	0.02	0.00	0.43	0.06	0.21	0.13	0.08	0.00	-0.01	0.15	0.37	0.12	0.44	0.06	0.22	-0.07	0.09	-0.12	0.18	0.09	-0.04	0.00
Young people should keep up with the latest trends in technology	-0.10	0.00	0.43	0.17	0.24	0.09	0.10	0.00	-0.03	0.17	0.34	0.12	0.46	0.07	0.24	0.19	0.09	-0.04	0.19	0.14	-0.06	0.00