

Final report



# Assessment of loans to female run start-ups

A randomised  
control trial



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January 2017

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# **Updated Final Report**

## **Assessment of Loans to Female run Start-ups A Randomized Control Trial**

**January, 2017**

**Farah Said,  
Mahreen Mahmud & Azam Chaudhry**

## Executive Summary

This study analyses the impact of a microenterprise loan product offered to aspiring female entrepreneurs on socio-economic household welfare of the recipients. Specifically, this study is a Randomised Control Trial (RCT) to evaluate the impact of a product offered by Kashf Foundation (partner organization), the Kashf Ibtada-e-Karobar Karza (KIKK), that provided start-up capital and training to women from low-income households. The product KIKK involved submission of a business plan at the time of application, PKR 10,000-30,000, 12 month loan with monthly repayment and 3 hours of training on marketing, networking and capacity building to female beneficiaries.

The study sample was selected from new applicants at 13 Kashf branches in Bahawalpur, Gujrat and Sialkot. All eligible applicants between May and August 2014 at these branches were randomly assigned to either receive KIKK (treatment) or not (control), thus producing statistically balanced treatment and control groups. The analysis makes use of a balanced sample of 618 individuals that were surveyed three times over two years: once before the disbursement of loans; and then one and two years later in August 2015 and August 2016.

There was a significant impact of the microfinance product on the likelihood of setting up a business at the first follow up a year later but no improvement in household asset holdings or in women's independence when making ordinary household decisions. Two years after the disbursement of loans, we no longer found a significant difference in the number of women reporting to be self-employed between the treatment and control group. Quite possibly the initial improvement in business creation were transitory effects of the product. There were no significant improvements in household asset holdings as well as in women's independence in making ordinary household decisions over this period across the two groups.

To provide measures of social and household dynamics these borrowers operate in, this study also made use of lab-in-the-field experiments at the time of the first follow up survey in 2015, with 267 randomly selected RCT participants and male members of their households. The researchers made use of standard behavioural activities, customized to the local context. Experimental results show that in pairs where women were entrepreneurs, men and women did not change behaviour between public and private rounds. However, husbands of housewives chose to keep more for themselves in the private than in the public round. In literature, this is taken as evidence of 'hiding' of resources from the spouse. Self-employed women kept more of their endowments when earned, i.e. they exhibit greater entitlement over their earnings than over windfall. Husbands of housewives act the same. These results point towards possibly adversarial dynamics in households where the woman is not working. Unfortunately, given baseline measures of these preferences were not recorded, is not possible to identify the direction of causality between these preferences and female enterprise.

The findings of this study are pertinent to policy makers and microfinance institutions alike that, by virtue of their own agenda, often attempt to promote enterprise and empowerment amongst women through access to finance. The results of the RCT provide some evidence that while appropriate targeting can actually lead to business creation for a sample of aspiring female entrepreneurs, it does not appear to result in sustained business creation. Results also indicate that the control of household resources and household dynamics can be another constraint on whether a woman is able to show agency, particularly in decisions relating to setting up a business. As such, these findings point towards the need for changing perceptions regarding female enterprise. Access to finance alone may be met with limited success if the female borrower fears capture of the loan resources or social censure of her enterprise.

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## 1 Introduction

Recent years have seen an influx of microfinance related impact evaluations. The excitement around a model that promised to be market based yet reduced poverty and improved other social indicators motivated academics to conduct thorough scientific evaluations. Lack of a credible control group due to the self-selection of microfinance borrowers has meant that any robust evaluation has to be through a Randomized Control Trials (RCTs).

Problems with randomizing at the individual level has also meant that majority of these studies have relied on clustered RCTs comparing outcomes across villages or neighbourhoods<sup>1</sup>. These studies have not found any significant gains in expenditures on consumption or non-durable goods. They do find increases in business activity but this is due to expansion of pre-existing businesses and not new set ups. However, this expansion does not result in any significant gains in profits except for the top 5-10% of the profit earners in some cases. We look to contribute to an understanding of a specific type of Microcredit i.e. loan for setting up an enterprise<sup>2</sup> along with capacity building training in business management, marketing techniques and business innovation<sup>3</sup>.

## 2 Relevant Literature

Banerjee et al. (2015) carried out a randomized evaluation of a group lending microcredit program in Hyderabad, India. The results show that 15 to 18 months later, investment and profits of pre-existing businesses increased and durable goods expenditure increased while there were insignificant changes to health, education and women empowerment. Crépon, Devoto, Duflo and Parienté (2013) carried out a similar randomized evaluation of a microcredit program introduced in rural areas of Morocco starting in 2006 by Al Amana, the country's largest microfinance institution. The study revealed the access to microcredit led to an increase in investment in assets and increased profits for the businesses of the borrowers. However, there was no overall gain in income mainly because the increase in profits was subsided by a reduction in income from casual labour. Previously, Angelucci, Karlan and Zinman (2012) carried out a geographic wise clustered randomized trial and household survey of 250 eligible borrowers and their businesses to estimate impacts from extending group lending by the largest micro lender in Mexico. In line with the above-mentioned studies, impacts were insignificant for economic outcomes like income and consumption even after 18 to 34 months. However, there was evidence of investment increase and consumption smoothing. Happiness, trust in others and female intra-household power also increased.

deMel, McKenzie and Woodruff (2008) and Fafchamps et. al (2014) use an RCT to identify the effect of incremental cash investments on the profitability of enterprises. Their data also allows them to measure the impact for female-run enterprises. deMel et al. (2008) find that for microenterprises in Sri Lanka, access to finance led to a real return to capital that was higher than the market interest rates. Moreover, while returns varied in entrepreneurial abilities, they were significantly larger with male owners, and household wealth but did not vary with risk aversion and uncertainty. Fafchamps et. al (2014), on the other hand, look at the differential impact of cash and in-kind grants to both male and female-owned

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<sup>1</sup> Banerjee et al. (2013), Angelucci, Karlan and Zinman (2012), Crépon, Devoto, Duflo and Parienté (2013), Tarozzi, Desai and Johnson (2013)

<sup>2</sup> deMel, McKenzie and Woodruff (2008) and Fafchamps et. al (2014) have studied in detail the impact of access to finance on existing female run enterprises.

<sup>3</sup> 3 hour *Business Incubation Sessions* are conducted in groups of 20 new borrowers at the local branch.

microenterprises in Ghana. They find that the impacts of cash grants are insignificant for both male and female run enterprises, casting doubt on the role of micro-credit alone in enhancing business growth. For women particularly, only in-kind grants led to any improvements in profits and that too only for microenterprises that were earning higher than median profits. These results imply that the mechanism through which assistance is provided to women matters – cash assistance alone may not be sufficient to benefit enterprise and / or to sustain improvements in profits.

There have been several studies that have looked at the impact of access to microfinance in Pakistan. However, evaluation has mostly involved non-experimental or quasi-experimental analysis. Asim (2009) used propensity score matching on a sample of 275 clients and their households<sup>4</sup> to study the impact of microcredit on indicators of women's empowerment. It was found that participation in micro credit programs does not significantly impact empowerment outcomes, such as contribution in economic, child or health related decisions in the household. One must also note, none of these loans were extended to start-ups but to existing micro-enterprises as an injection of liquidity. In a similar manner, Setboonsarng and Parpiev (2008) carried out impact assessment using propensity score matching from data on male and female clients from a Khushali Micro Finance Bank in Pakistan. They were able to show that the Khushali Bank lending program in the region contributed significantly to income generation activities such as agricultural production. Contrary to previous studies, Ghalib, Malki and Imai (2011), were able to show statistically significant and a positive impact of microcredit programs on economic wellbeing of households in rural Punjab. They used a quasi-experimental approach using a sample comprised of both borrowers and non-borrowers from 1132 households across 11 districts of Punjab, Pakistan. Indicators such as expenditure on healthcare and clothing, monthly household income and quality of roofing and walls were significantly higher for households with access to microfinance.

Existing literature provides us with some insight for thinking about the likely impact of borrowed funds in the businesses and lives of females who do not have an existing business. Most of the existing studies are based on borrowers from organization who give loans for both productive and non-productive reasons with no follow up on what the loan is used for. Hence, the evidence so far captures the overall impact of access to finance used for consumption, for enterprise expansion or to set up a new business. Also, there is variation in the ideology of the microfinance organizations with some emphasizing business creation and others targeting women. Banerjee et. al (2015) cite this as one possible explanation for the divergent findings on social indicators across studies. In this study we specifically look at households where there is no female run enterprise and they are given a loan to start a new business. We survey these households three time – once before the loan has been disbursed, once one year after disbursement and then once two years after the disbursement of the loan. This allows us to quantify the business and socio-economic impacts of these loans over the medium (one year) and long term (two years).

### **3 Partner Organization**

The organization offering this product, Kashf Foundation, is Pakistan's foremost specialized non-profit microfinance organization. It was established in 1996 with a vision to provide affordable financial and non-financial services for all, in a poverty-free and gender-equitable society. The organization offers microfinance services to low-income households,

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<sup>4</sup>Mainly women registered with Kashf Foundation and the NGO Community Support Concern in Shalimar and Aziz Bhatti town, Lahore

specifically women. Kashf products are designed with a view to augment the role of women in the household decision making by establishing their entrepreneurship skills through access to business loans; upgrading their financial management skills by carrying out financial education trainings; decreasing family level contingencies by providing micro-insurance services and enhancing the economic status of their families as a whole.

### **3.1 Product Summary**

This study specifically focuses on evaluating the impact of Kashf Ibtada-e-Karobar Karza (KIKK) on socio-economic wellbeing of borrower households. The KIKK was piloted in 2012-13 and rolled out in January 2014 in urban and peri-urban areas of four districts of Punjab – Bahawalpur, Gujrat, Sialkot and Multan. The product, offered in collaboration with Pakistan Poverty Alleviation Fund (PPAF), aims to offer business start-up capital to skilled women from low-income households who have a practical business plan and require a line of credit. PPAF's funded KIKK has two components, access to finance through a short-term microloan and business training<sup>5</sup> for successful applicants to assist in business sustainability.

### **3.2 Micro-Loan**

KIKK provides its clients with an amount of PKR 10,000 to PKR 30,000 for 12 months, allowing monthly instalments, with service charges of 22% per annum of the declining balance of loan. The initiative is envisioned to provide the clients with access to a line of credit - if women are able to sustain their initial businesses, they may be promoted to Kashf's main products such as Kashf Karobar Karza that provides approximately PKR 60,000. The product was to be delivered to 2,280 clients from January to October 2014 under the PPAF funded initiative. Apart from these 4 districts, the product has 2,661 beneficiaries from 19 districts.

### **3.3 Training Component**

Female beneficiaries of the loan will also receive 2 hour training on marketing, networking and capacity building. It is hoped that the product in its entirety will aid the sustainability of the new enterprise. The training program includes discussion sessions on the qualities of a successful entrepreneur; how to set goals and timelines for their business; maintaining financial plans and discipline; effective marketing and networking and the need for innovation in business growth and sustainability. The purpose of the workshops is to bring to the attention of the participants that women working from home can not only play an important role in their family but also contribute to the community as a whole.

## **4 Research Questions**

This product may allow Microfinance Financial Institutions (MFIs) to draw new clients into their client pool, by offering a product that is targeted towards investing in a new or discontinued business owned and controlled by a female. From a practical point of view, researchers can evaluate the viability of the product as an alternative to existing microfinance models that do not focus on micro-loans targeted towards start-ups. Particularly, we aim to address three main research questions:

*Research Question 1:* How does the combined effect of the loan and business training impact the ability to set up a business?

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<sup>5</sup> The training for new entrepreneurs is grant based only and will be discontinued upon grant expiry until further notice.

*Research Question 2:* Does female involvement in the loan usage and decision making improve household gender empowerment levels in the short run?

*Research Question 3:* Does the provision of microcredit to start a business improve the socio-economic wellbeing of the household in the short run?

## **5 Surveys and Game Sessions**

### **5.1 Survey**

We conducted three rounds of survey with the RCT sample, each a year apart. The surveys included questions developed by Banerjee et al. (2015) and those asked general household surveys conducted by the Pakistan Bureau of Statistics (such as the Pakistan Standard of Living Measurement Survey). The first module collected information on the basic demographic composition of the household of the clients. The second module asked detailed questions regarding the assets possessed by the household, condition of the house and the average monthly income and expenditure. The main module of interest was the one on empowerment and here questions were tailored to women's marital status. The questions pertained to several dimensions of decision-making. The next two modules collected information on any other loans taken by the household and the degree of community interaction through committees and formal trainings by Kashf or other organizations. The final module asked questions related to any work done by the client, specifically if it was a business. These modules were included in all three rounds of the survey, allowing us to measure change in variables of interest over time.

At midline we also included questions to determine what use the loan was put to and the effectiveness of financial and management training provided by Kashf to the treated individuals shortly after receiving the loan. Though the likelihood of the loan granted to a treatment client being used by a control client is low, information spill overs from the training sessions with treatment clients were possible. We controlled for this in analysis using information gathered on the linkages between the control and treatment clients at midline.

For eliciting time preferences, we used a standard intertemporal convex time budget design developed by Andreoni and Sprenger (2012). The midline questionnaire included list-choices questions for payments at a near time frame (tomorrow versus a month from tomorrow) and a far time frame (5 or 6 months from now).

The baseline survey was conducted by the BDO. All clients identified by the BDO had to fulfil KIKK eligibility criteria. The BDO conducted the survey for the study, as well as the Loan and Business Appraisal forms as per their operations guidelines, in the same visit. Survey and form were filled in before the final list of clients was sent to the Head Office for assignment to control and treatment.

The mid and endline surveys were conducted by an independent survey firm trained by the researchers. Officers of the local Kashf branch helped them in locating clients when needed. However, no loan officer was present at the time of the actual survey. Please see Annexure A



for details on the randomisation and sampling strategy. The questionnaire is provided in Annexure B<sup>6</sup>.

## **5.2 Session Details of In-field Experiments**

We had two sessions in each of the 13 branches for a total of 26 sessions conducted the same day in the morning and the afternoon between August and September 2015. The afternoon participants arrived soon after the participants from the morning session left which we hoped minimized any chances of spill overs. Moreover, we always assigned control and treatment clients to the same group since we also did not want that those who had and those who had not received the KIKK product to interact with each other. Whether a session was to be with control or treatment clients was randomly assigned to avoid any time-of-the-day effects biasing results. These sessions were held in a central location close to the branch and people would be travelling from areas around it. In the case of Kashf, this could mean a distance of 10 to 15 km.

Given the urban setting of most of the branches in the sample, respondents were offered PKR 1,000 per person to give them sufficient incentive to come. All sessions were held on a Sunday so that people having to take time off work would not result in low participation rates. In the first week, 15 participants were invited to each session to achieve a target sample of 12. These invitations were made at the end of the survey that the enumerator firm was conducting in the area, in the week preceding the games session. This was later increased to avoid losing out on potential sample. In case of more than 12 couples appearing for a session, a ballot was conducted to select the couples who would participate and those asked to leave were paid the participation fee as promised. In keeping with the local norms as well as to avoid couples influencing each other, all male and female sessions were in separate rooms. However, these were run simultaneously and no interaction was allowed till a session was completed. Except for the norms game, which was always played last, the researchers also randomised the order of other games played in each session.

Details of the field experiments conducted are provided in Annexure C. One game was randomly selected for payment at the end from a bag containing numbers 1 to 4. In case of all games other than the norms and risk activities, an additional draw was done to determine the round as well as the room according to which the payment was to be made. The respondents had been informed about this at the start and the rooms clearly marked to show where males and females would go. To keep allocations private in the dictator game, as discussed before, a coin was tossed to determine a random amount to be added to participant payoffs.

## **5.3 Quality Checks**

### **5.3.1 Survey**

Once the survey data was received, 25% of all baseline and midline questionnaires were checked for data entry accuracy. Each week the survey firm provided us with a list of all clients surveyed along with their contact numbers. 30% of them were called to confirm that the survey was actually conducted.

While the first two rounds of surveys were conducted using pen and paper, the last round of the surveys conducted in 2016 were conducted using tablets. This allowed the research team to conduct immediate spot checks and provide timely feedback to the enumerators. As a result, data entry and enumerator errors were markedly lower in the final round of the survey.

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<sup>6</sup> Annexure B has the questionnaire administered in 2014 and 2015. The 2016 questionnaire has minor differences and is available upon request.

### **5.3.2 In-field Experiments**

At all sessions, a member of the research team was present. This was to make sure that data entry was correctly done which determined the payments to be made. We also wanted to ensure that the correct order of randomization of the activities was followed and all sessions were as homogenous as possible.

### **5.4 Issues Encountered**

The study required that the product, KIKK, would not be offered to the control clients (or members of the household) for the duration of the evaluation period. Any new assistance or products to the sample area was to be given to individuals in the control and treatment groups irrespective of their treatment or control status. Control and treatment status in the RCT, and any real or perceived benefits received by treatment borrowers in the project, should have no bearing on how Kashf field staff determine who to provide other products or training – even if this meant that Kashf borrowers of other products would all in the treatment. If they were all in the control, this would not present a problem. Study design would be compromised only if Kashf field staff provided loans and / or other assistance to control individuals because they were controls in this study; i.e. as a way of compensating them for not receiving the KIKK loan. Kashf field staff and managers were to strictly ensure that control clients were not favoured in this manner.

We encountered non-compliance from the treated individuals in 38 cases. In 18 of the 38 cases, the individual failed to provide post-dated cheques as per Kashf operational policy after the individual had been informed of having been approved the loan. In 10 of the 38 cases, the client later refused the loan. In such circumstances, the research time provided a random replacement from the control group. The balance of the total sample was not compromised by these replacements (discussed later in section 7).

#### **5.4.1 Survey**

One of the issues encountered at the data collection level was the additional burden on the BDO and branch staff in filing in the survey and maintaining required records. Some BDOs expressed concern during the training regarding the level of detail that the survey questions required, which was more than the typical questions on loan applications. As a result, the field staff was understandably concerned about the reticence of the respondents in replying to certain questions. Though the survey script introduced the survey as information being collected by Lahore School for academic purpose, there were some surveys where the respondents chose not to answer sensitive questions (such as questions on empowerment levels). To avoid incomplete surveys and burden on the BDO, we hired external, independent enumerators to conduct the surveys in 2015 and 2016.

There were a further 11 individuals from the control group, who were later provided loans in violation of the research protocol. These individuals were 6 years older on average but this difference is only weakly significant at the 10% level. They are not significantly different from the randomly allocated sample on other characteristics such as education, dependency ratio, marital status, occupation, household expenditure or type of family business (if any). 13 treatment individuals refused to take-up the loan after approval. Unlike other such cases, these 13 cases were not communicated by the branch officer to the research team in time for a random replacement to be found. These individuals were balanced with the remaining sample on marital status and occupation. However, they were also younger, less educated women

with fewer children and higher household expenditure. Given the small number of these individuals, we included them in our ‘intent to treat’ sample, subject to robustness checks.

### 5.4.2 In-Field Experiments

As mentioned earlier, individuals were provided PKR 1,000 as participation fees and the games were held on a Sunday so that it would not be necessary to take time off from work to attend. 15 randomly selected clients, and a male partner from their household, were invited from each area.

However, this was later increased to 20 pairs of potential participants to ensure a minimum attendance of 12 pairs at each session. There were instances when fewer than 12 participants arrived. In 4 sessions (conducted over two days), attendance was low due to unavoidable reasons. For instance, during one of the session days in Gujrat, multiple pairs did not show up due to a death in the community. In another instance in Sialkot, attendance was low due to a security incident at the India-Pakistan border. Such events were unpredictable and unavoidable – the sessions continued with the participants who had shown up as long as at least 4 pairs were available to participate.

At times a client who had been asked to participate with a specific male member of the household, for example her husband, would show up with some other member who was available, such as her brother or child. Such participants were not allowed to participate. Latecomers were also not accommodated. As a result of all these issues, the average attendance at the session was 10 pairs.

### 5.5 Attrition

We were unable to survey 210 of the initial 899 baseline respondents due to various reasons. Almost 60% of these individuals belonged to the control group. Enumerators reported a high level of local migration. Therefore, 174 individuals could not be located despite all the data available (phone numbers, loan guarantor detail, father / husband names, etc) and assistance from staff at the local branch. However, the fact that individual had shifted was verified via phone to the client in only in 3 of these instances.

Out of the 689 individuals that were contacted at midline, the survey firm was only able to locate and contact 637 at the endline in 2016. Of these 637, surveys were successfully conducted with 618 individuals (see table 5.1). These 618 constitute the final sample that provides us with a balanced panel at over the two years.

**Table 5.1: Reasons for failure to conduct midline (2015) and endline (2016) surveys**

<b>Reason not surveyed</b>	<b>Midline (2015)</b>		<b>Endline (2016)</b>	
	<b>Control</b>	<b>Treatment</b>	<b>Control</b>	<b>Treatment</b>
Location not known	103	71	15	10
Security concerns	3	1	0	0
Deceased	1	2	1	0
Refused to participate	12	4	7	12
Shifted	1	2	8	7
Other*	3	6	6	5
<b>Total</b>	<b>123</b>	<b>86</b>	<b>37</b>	<b>34</b>

\*Includes individuals that were not available for survey or those that did not complete the survey.

There was no significant difference between the surveyed and attrited sample at endline based on initial marital status and expenditure variables (Table 5.2). The only difference was that women in the attrited sample had fewer children, and hence, a lower dependency ratio. Subsequently, this was controlled for in the regression analysis. The values in Table 5.2 were also confirmed by regressions clustered at the loan officer level.

**Table 5.2: Summary statistics after attrition using baseline data**

	Mean		p-value of mean difference
	<i>Surveyed Sample</i>	<i>Attrited Sample</i>	
Age	37.04	36.6	0.564
Married	0.87	0.86	0.599
Education <sup>7</sup>	2.50	2.62	0.375
No of children	2.80	2.26	0.000***
Dependency ratio	0.97	0.82	0.023**
Self-employed (%)	0.18	0.21	0.284
Monthly Household Expenditure (Rs)	13618.17	13684.37	0.897
Asset Index	-0.19	-0.15	0.228

## 6 Descriptive Analysis

### 6.1 Survey Data - Baseline

We had a total sample of 899 clients of which 440 (49%) were in the treatment group i.e. a loan was disbursed to them. These clients came from 13 branches and the branch wise distribution of the control and treatment clients is in Table 6.1.

As discussed in section 5.5, approximately 30% of the sample was lost to attrition, due to various reasons, over the two years of this study. However, the attrited and final sample of 618 women is not different over observables, except the number of children. Furthermore, table 6.2 shows that the final treated and control groups are balanced on baseline values. The final sample consists of 299 and 319 women in the control and treated groups, respectively. Around 87% of the women in our sample were married, about 37 years of age and had a mean education level between less than primary and primary. A look at the households of these women revealed that the average number of children that a client had was between 2 and 3. These households had a mean dependency ratio of 0.9, defined as the ratio of the number of people in the household below 16 and above 64 to those aged between 16 and 64.

In 2014, the average monthly household expenditure of the sample stood at a little under PKR 14,000. We also construct an asset index (using Principal Component Analysis, developed initially by Fisher and Mackenzie, 1923). The index provided by PCA is by construction normalized to have a mean of 0. We considered the possession of several assets in the construction of the index - radio, television, fans, lights, mobile telephone, computer, refrigerator/freezer, air conditioner, washing machine/dryer, cooking range/microwave, sewing machine and iron. Control and treated group is balanced across these asset and expenditure dimensions.

<sup>7</sup>Correspond to: 1. Illiterate, 2.Less than primary, 3.Primary, 4.Middle, 5.Metric, 6.FA/FSc, 7.BA and above.

**Table 6.1: Distribution of clients by branch surveyed at baseline (2014)**

	<b>Total Clients</b>	<b>Control</b>	<b>Treatment</b>
Bahawalpur-01	66	33	33
Bahawalpur-02	72	37	35
Bahawalpur-03	77	37	40
Gujrat-01	45	21	24
Gujrat-03	63	35	28
Jalal Pur Jattan	72	39	33
Khankah Sharif	68	33	35
Kharian	75	41	34
Pasrur	80	41	39
Sambrial	72	38	36
Sialkot-02	74	32	33
Sialkot-03	65	32	33
Yazman	70	36	34
<b>Total</b>	<b>899</b>	<b>459</b>	<b>440</b>

**Table 6.2: Summary statistics of final sample (618 individuals) at baseline (2014)**

	<b>Overall</b>	<b>Treatment</b>	<b>Control</b>	<b>p-value on mean difference</b>
Age	37.03	37.04	37.04	0.994
Education <sup>8</sup>	2.50	2.48	2.53	0.7473
Married	0.87	0.87	0.87	0.866
No. of Children	2.80	2.79	2.81	0.919
Dependency Ratio	0.97	0.93	1.01	0.295
Self-employed	0.18	0.16	0.19	0.267
Monthly Household Expenditure (Rs.)	13618.17	13401.30	13835.84	0.214
Asset Index	-0.02	-0.08	0.04	0.334

## 6.2 Survey Data - Midline

The division of control and treatment across branches is as in Table 6.3. The attrition in the control group was higher than in the treated group. This was not unexpected - as discussed before, greater attrition was expected of control clients with whom the local branch is not in contact. More clients were assigned to control rather than treatment at the time of the baseline to take this higher expected attrition into account.

Table 6.4 below provides the average characteristics of the final sample at midline. As can be seen, the control and treatment groups differ at midline by their occupation - almost 60% of the control sample included housewives and about 20% self-employed. Meanwhile this trend was reversed with almost 40% of the sample self-employed and 44% housewives in the treatment sample.

**Table 6.3: Distribution of clients by branch surveyed at midline (2015)**

<b>Branch Name</b>	<b>Total</b>	<b>Control</b>	<b>Treatment</b>
Bahawalpur-01	48	24	24

<sup>8</sup>Correspond to: 1. Illiterate, 2. Less than primary, 3. Primary, 4. Middle, 5. Metric, 6. FA/FSc, 7. BA and above.

Bahawalpur-02	56	27	29
Bahawalpur-03	62	29	33
Gujrat-01	33	13	20
Gujrat-03	46	23	23
Jalal PurJattan	57	30	27
Khankah Sharif	49	19	30
Kharian	34	20	14
Pasrur	73	40	33
Sambrial	63	30	33
Sialkot-02	64	33	31
Sialkot-03	54	26	28
Yazman	50	22	28
Total	690	336	354

**Table 6.4: Summary Statistics of Final Sample at Midline**

	Overall	Treatment	Control	p-value on mean difference
Married	0.88	0.89	0.88	0.588
No. of children	3.14	3.18	3.09	0.550
Dependency Ratio	4.92	4.98	4.87	0.569
Self-employed	0.32	0.40	0.23	0.000***
Expenditure	23202.40	23105.53	23305.71	0.908
Asset Index	0.01	-0.02	0.05	0.597

### 6.3 Survey Data – Endline

Finally, we look at the division of control and treatment across branches (table 6.5) and the sample characteristics at the time of the final survey in 2016 (table 6.6). At endline, we asked a slightly different question to ascertain if the woman was involved in running a business. According to this question, approximately 14% of the women report being involved in a business i.e. self-employed and the difference between control and treated group is no longer significant. Total household expenditures decreased slightly over the year. All in all, there are no significant differences between the control and treated group as of 2016, pointing towards the possible transitory effects of the product along these observable dimensions.

**Table 6.5: Distribution of clients by branch surveyed at endline (2016)**

Branch Name	Total	Control	Treatment
Bahawalpur-01	43	22	21
Bahawalpur-02	47	23	24
Bahawalpur-03	53	23	30
Gujrat-01	30	11	19
Gujrat-03	39	19	20
Jalal PurJattan	50	26	24
Khankah Sharif	41	15	36
Kharian	24	14	10
Pasrur	71	39	32
Sambrial	59	29	30
Sialkot-02	62	31	31
Sialkot-03	52	25	27

Yazman	47	22	25
Total	618	299	319

**Table 6.6: Summary Statistics of Final Sample at Endline**

	Overall	Treatment	Control	p-value on mean difference
Married	0.89	0.89	0.89	0.973
No. of children	3.12	3.16	3.07	0.541
Dependency Ratio	5.08	5.11	5.06	0.820
Self-employed	0.14	0.14	0.14	0.838
Expenditure	18418.80	18063.02	18240.31	0.823
Asset Index	-0.015	-0.11	0.09	0.157

#### 6.4 Lab-in-the-field Experiments

Lab-in-the-field experiments were conducted with randomly selected individuals who had participated in the midline survey. We had a total sample of 267 couples from the 26 sessions with an average attendance of around 10 couples per session. For married females with husband living in the same area (as opposed to having moved away for work), we asked for the spouse to come to the game session. In case of unmarried female or the husband being away, we requested for her to identify the main, male decision maker in the household aged 18 or above. 70% of the women did in fact attend the session with their husbands, 17% with their son, 8% with their brother and 4% with their father<sup>9</sup>. About half of the women and one-third of the male sample was illiterate (see Table 6.7). In line with the full sample, 36% of the women were self-employed while the majority of the male sample (54%) were labourers.

**Table 6.7: Summary Statistics for In-Field Experiment Participants**

	Female	Male
Age	37.23	36.03
Married	86.96%	80.22%
Education		
<i>Illiterate</i>	51.12%	30.22%
<i>Primary or less</i>	21.27%	26.86%
<i>Matric or above</i>	20.9%	22.76%
Occupation		
<i>Housewife</i>	47.76%	-
<i>Self employed</i>	35.45%	9.33%
<i>Labourer</i>	8.42%	53.73%

272 individuals (136 couples) were paired with the household member whom they came with to the games session while the rest of the 264 individuals were paired with a stranger in the other room. This pairing was important for the two activities – dictator games with public and private rounds and the taking and dictator games with earned endowments. The pairing was done randomly.

<sup>9</sup> Less than 1% came with their brother in law, nephew or father in law.

## 7 Results

### 7.1 Measuring the impact of treatment

To measure the first questions mentioned earlier on the impact of the treatment product on the decision to set up a business, we ran a panel regression to find the difference in difference estimator over the short and long term:

$$y_{it} = \beta_0 + \beta_1 \text{treated}_{it} + \beta_2 \mathbf{X} + \epsilon_i$$

$y_i$  is the dependent variable of interest,  $\text{treated}_{it}$  is a dummy for if the respondent has been ‘treated’, 0 otherwise.  $\mathbf{X}$  is a vector of individual level controls to test the robustness of results.

To measure the socio-economic impact of the product on household variables and female empowerment, we run a difference in difference equation over 2 years of data:

$$y_{it} = \beta_0 + \beta_1 \text{treated}_i + \text{Round}_t + \text{treated}_i * \text{Round}_t + \beta_2 \mathbf{X} + \epsilon_i$$

$y_i$  is the dependent variable of interest,  $\text{treated}_{it}$  is a dummy for if the respondent has been ‘treated’, 0 otherwise;  $\text{Round}_t$  denotes the wave of survey.  $\mathbf{X}$  is a vector of individual level controls to test the robustness of results.

The results over the medium (one year) and long term (2 years) are in the tables 7.1 and 7.2 below. Column (1) in table 7.1 shows that the treatment had a positive impact on the likelihood of setting up a business within one year of receiving the loan product. That is, women who receive the loan plus training product are 5% more likely to set up a new business in the next year. In column (2), we control for recipient age and education. We also control for the number of children – a characteristic that was significantly different between the final and attrited sample. The treatment effect is robust to the inclusion of these controls. We also look at the longer-term impacts of the treatment and find that the effect of the loan product is not sustained over two years. This is an interesting result for the debate on

**Table 7.1 Impact of Treatment on Setting Up Business**

Dependent variable: Set up a business				
	(1)	(2)	(3)	(4)
	Medium-term	Medium-term	Long-term	Long-term
Treated	0.0514** (-0.0246)	0.0504** (-0.0247)	0.0152 (-0.0198)	0.0164 (-0.0198)
Number of children		-0.0102 (-0.00633)		-0.00971* (-0.00563)
Age		-0.00224 (-0.00139)		0.00178 (-0.00124)
Education		-0.0119 (-0.00758)		-0.00923* (-0.00525)
Constant	0.0803*** (-0.0157)	0.223*** (-0.0681)	0.0569*** (-0.0134)	0.0446 (-0.053)
Observations	618	617	618	618
R-squared	0.007	0.017	0.001	0.012

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



microfinance since it provides some evidence that appropriate targeting can actually lead to business creation for an all-female sample; however, these effects are not sustained.

On the other hand, the treatment product had no significant impact on how confident she is in providing for her family for 4 weeks (column 1, table 7.2), whether or not is involved in ordinary household decisions such as purchase of clothing and footwear on her own (column 2, Table 7.2). Finally, the treatment had no impact on household assets owned as reflected in the household asset index (column 3, Table 7.2). It is possible that survey based questions are unable to capture empowerment effectively. Therefore, the analysis in the next section discusses evidence based on incentivized measures of empowerment.

**Table 7.2: Impact of Treatment on Decision Making and Household Assets**

	(1) Confident can support family	(2) Involved in ordinary household decisions	(3) Household asset index
Treated	-0.088 (0.107)	-0.139 (0.176)	-0.097 (0.122)
Round = 2	-0.611*** (0.112)	-0.102 (0.176)	-0.015 (0.124)
Round = 3	-0.558*** (0.113)	0.070 (0.188)	0.033 (0.136)
1.ITT#2.Round	0.163 (0.155)	0.198 (0.245)	0.021 (0.175)
1.ITT#3.Round	0.247 (0.155)	-0.135 (0.265)	-0.101 (0.186)
Constant	-0.203*** (0.076)	0.072 (0.122)	0.054 (0.089)
Observations	1,771	1,853	1,828
R-squared		0.002	0.002

Robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## 7.2 Other characteristics that impact business creation

Table 7.3 looks at other individual experiences, other than the randomly allocated loan, that can affect the decision to set up a business. Here, we look at the results for the first year only, second year results are insignificant but available on request. We find that women who have seen their mother's set up and manage a business are more likely to set up a business (column 1). This result does not extend to other members of the household, however.

Finally, we look at the impact of the business training on individuals. For this analysis, we look at the sample of treated individuals who reported having obtained training from Kashf. Note, that all treated applicants were supposed to have received brief business training at the time of loan disbursement. However, only 312 individuals report having received training. We are unable to say from the data why this may be so i.e. did the remaining treatment respondents actually not receive training? This may also be due to faulty retention of the training.

We use this self-reported measure of training to see the impact of a training that is remembered and retained by the respondent on starting a business. Results show that those who report having received training from Kashf at the time of disbursement are 11% more likely to set up enterprise (Table 7.3, column 4). It might be worthwhile to further investigate why the training had not registered in the minds of a large proportion of the sample. It might be that those who actually started a business retained the training because it was useful for them in their activities. We found other variables, such as education, marital status, past loans recorded at baseline and some tests standards tests used in literature such as financial numeracy, digit-span test to be insignificant predictors of business creation.

**Table 7.3: Characteristics that impact the likelihood of starting a business**

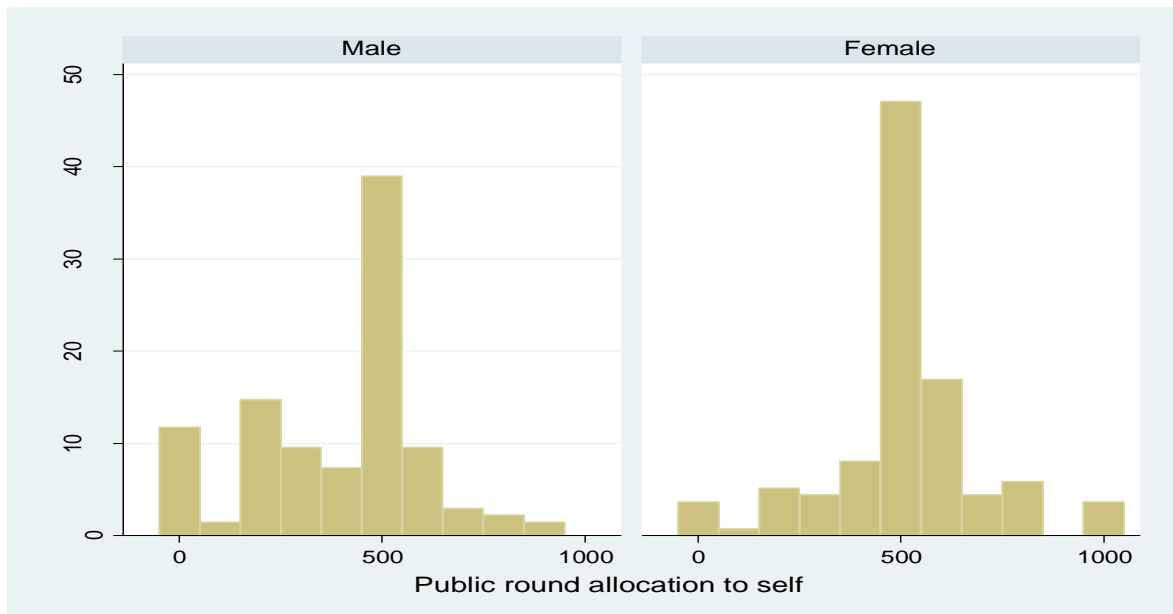
Dependent variable: Set up a business			
	(1)	(2)	(3)
Dummy: Mother has/had a business	0.119***		
	-0.0457		
Dummy: Someone in the family has/had a business		0.0266	
		-0.0273	
Dummy: Recalls receiving business training			0.110***
			-0.0378
Constant	0.0902***	0.0867***	0.0822***
	-0.0124	-0.023	-0.0228
Observations	618	618	318
R-squared	0.018	0.001	0.025

Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

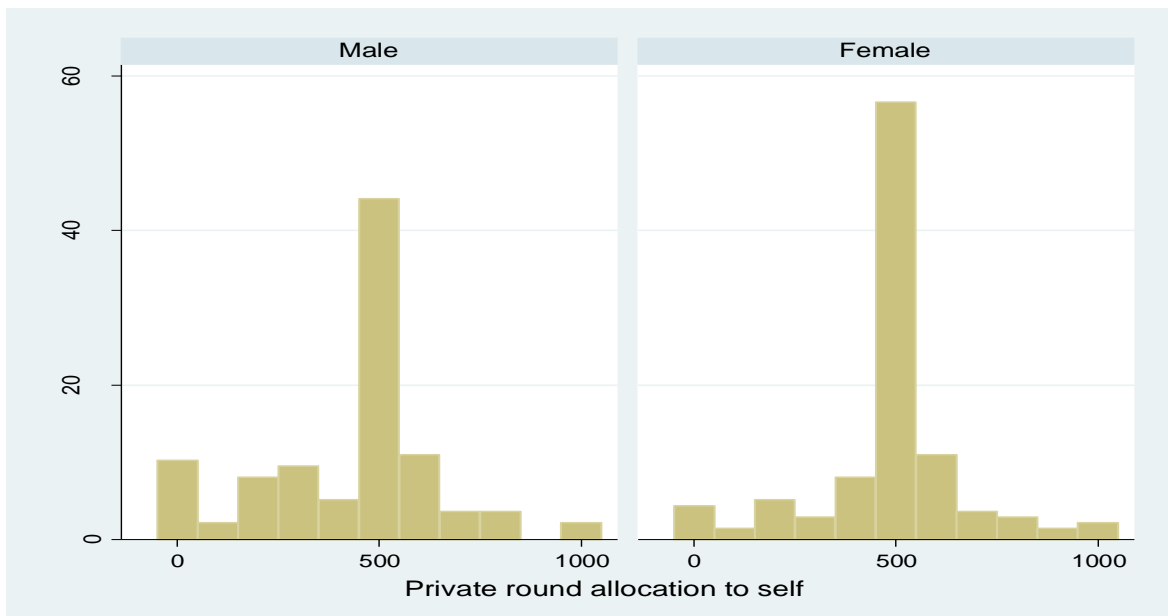
### 7.3 Experiment measures of empowerment

**Dictator with public and private round:** In the dictator activity, all respondents were given an endowment of PKR 1,000 and asked how they would like to divide it between themselves and their partner (either a stranger or who they came with). They were asked to do this twice, once when their distribution would not be revealed to their partner and once when it could be if the round is selected for payment. In line with literature, equity concerns seemed to be paramount. The highest frequency across genders, pairings and rounds was the equal division of PKR 1,000 between the respondent and their partner (see Figures D1 – D4).

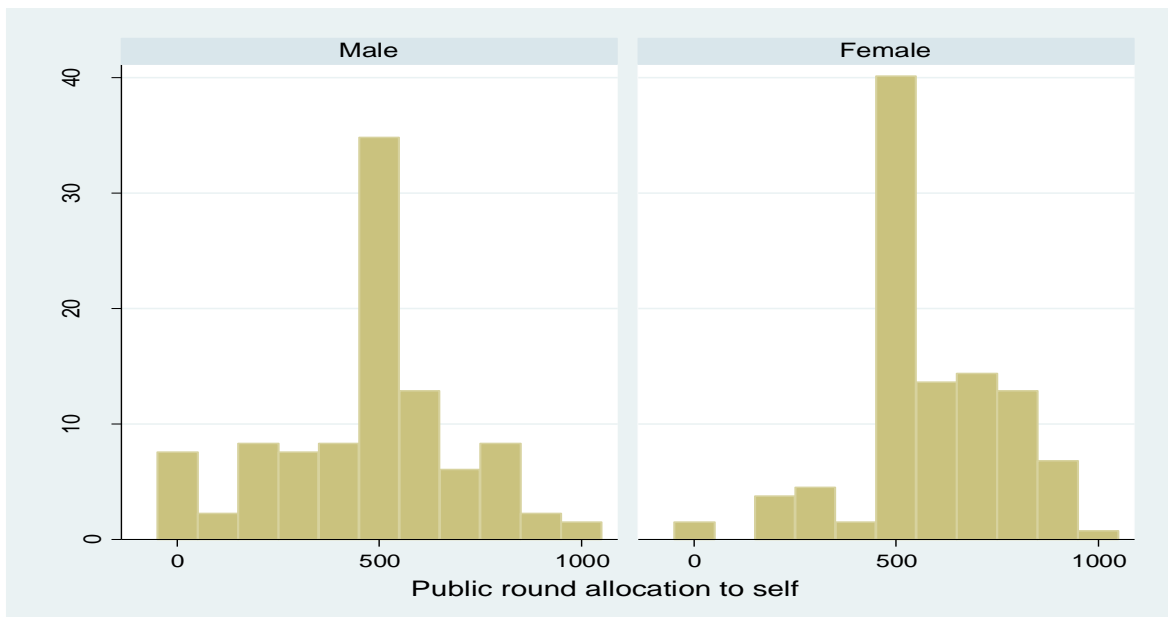
**Figure D1: Dictator – Public Allocation, Paired with Household Member**



**Figure D2: Dictator – Private Allocation, Paired with Household Member**



**Figure D3: Dictator – Public Allocation, Paired with Stranger**



**Figure D4: Dictator – Private Allocation, Paired with Stranger**



Not surprisingly, people kept more for themselves when they were paired with a stranger (see Table 7.4). It is interesting that for both men and women, their behaviour between private and public rounds did not change when paired with a stranger. However, for those paired with household members, there was an increase in the amount they kept for themselves (of about PKR 40) when the allocation was private. On the other hand, women paired with household members kept less for themselves in the private round, as compared to the public round.

Men appeared to be consistently more generous than women even with strangers (all are statistically significant differences). When paired with a household member, they were particularly generous as compared to women in the public round where they kept PKR 120 less for themselves as compared to women when faced with the same decision. However, none of these differences are statistically significant except for men giving more to women when the round is public.

**Table 7.4: Dictator – Endowment (Rs. 1000) Kept for Self**

<i>Paired with</i>	<b>Male</b>		<b>Female</b>	
	<i>Stranger</i>	<i>Household member</i>	<i>Stranger</i>	<i>Household member</i>
Public	471.21	392.65	582.58	508.09
Private	479.55	431.62	576.52	486.76

**Dictator and taking with earned endowments:** Participants earned their endowments through their performance in a simple sorting activity. They were then asked to distribute amounts between PKR 100 and PKR 1,000, in increments of PKR 100, between themselves and their partner. They were asked to provide allocations for all ranges of earning possible, once for their own earning and once for the money earned by their partners. Comparing the allocations in dictator game with and without earned endowment, slightly higher amounts were kept for self when the endowment was earned versus when endowed – PKR 503.96 versus PKR 488.06 and this difference was statistically significant at the 10% level. Interestingly, there was no significant difference in the allocation across genders when it was endowed versus when earned (comparing PKR 1,000 under dictator public round and PKR 1,000 under earned public).

**Table 7.5: Dictator - Public Allocation Of Earned And Endowed Rs.1000 Kept For Self**

<i>Paired with</i>	<b>Male</b>		<b>Female</b>	
	<i>Stranger</i>	<i>Household member</i>	<i>Stranger</i>	<i>Household member</i>
Endowed	471.21	392.65	582.58	508.09
Earned	487.5	440.96	571.59	517.28

The full allocations in the earned endowment are provided in Tables 7.6 and 7.7. As can be seen, women were less generous than men, and even more so when their partner was a stranger.

**Risk Elicitation:** This activity involved the respondent to privately and independently select between 6 options representing decreasing levels of risk aversion. As in literature, a random event (drawing of coloured ball from an opaque bag) determined the outcome from the choice made by the participant. The most common choice across both genders was the third option closely followed by option 4 and 5 (see Table 7.7). It is interesting to note that only about 5% of the respondents went for the ‘certain’ option, which was option 1. The main difference between the two genders was the much higher preference of the female group for choice 2 as compared to the male group. This likely indicates a greater reluctance within the female group to take risk 1 (see Table 7.8 for risk aversion coefficient range for each option).

**Table 7.6: Taking - Endowment Allocated to Partner**

Endowment Earned	Full sample			Female			Male		
	Overall	Came with	Stranger	Overall	Came with	Stranger	Overall	Came with	Stranger
1000	507	518	495	470	497	441	544	540	549
900	462	473	450	430	451	409	493	496	491
800	407	412	402	376	389	363	438	436	441
700	358	364	352	337	349	324	379	380	379
600	309	313	305	287	294	280	331	331	331
500	260	263	256	245	252	237	275	274	276
400	209	213	205	194	200	188	223	226	221
300	156	157	154	146	151	140	166	164	168
200	105	106	104	98	102	93	112	109	114
100	53	53	53	50	52	48	56	54	57

**Table 7.7: Dictator - Endowment Allocated to Partner**

Amount	Full sample			Female			Male		
	Overall	Came with	Stranger	Overall	Came with	Stranger	Overall	Came with	Stranger
1000	496	521	470	456	483	428	536	559	513
900	452	472	432	419	436	402	485	509	461
800	406	428	382	376	397	353	436	459	411
700	354	368	339	328	341	315	379	396	363
600	305	318	292	283	295	272	327	341	312
500	255	266	244	238	245	230	273	287	259
400	205	211	198	189	194	184	220	229	211
300	152	158	146	140	146	135	164	171	157
200	102	105	98	95	99	91	108	111	106
100	52	54	50	49	51	48	55	58	53

**Table 7.8: Risk Aversion Coefficient**

Choice	Low payoff (Yellow)	High payoff (Red)	Expected value of payoff	Deviation in payoff	Partial Risk Aversion Coefficient
1	250	250	250	0	7.51 - $\infty$
2	225	475	350	50	1.74 - 7.51
3	200	600	400	80	0.81 - 1.74
4	150	750	450	120	0.32 - 0.81
5	50	950	500	180	0 - 0.32
6	0	1000	500	200	$-\infty$ to 0

Note: E(x) is the expected value from the gamble

**Table 7.9: Frequency of Respondents Choosing Each Option**

	Full sample	Male	Female
Option 1: 250Y,250R	5.22	5.97	4.48
Option 2: 225Y,475R	15.67	11.19	20.15
Option 3: 200Y,600R	28.54	29.48	27.61
Option 4: 150Y,750R	20.9	22.76	19.03
Option 5: 50Y,950R	21.64	22.39	20.9
Option 6: 0Y,1000R	8.02	8.21	7.84

Note: Y refers to the payoff if yellow ball is drawn and R to the payoff if red ball is drawn

**Norms Elicitation:** The last activity in each session was conducted to elicit norms. It involved three rounds of answering the same question on the appropriateness of a decision taken by a woman. In each round the payoff was dependent on matching the response of their partner but the partner was different in each round. Therefore, this activity attempts to elicit a participants' perception of what his/her partner thinks about the situation that they were presented with. The question asked was as follows:

*Imagine that a woman is running a business from her home. At the end of the month, she has some profits to re-invest. She can ask her husband to re-invest them for her, or she can choose herself, without consulting him. She decides to re-invest her profits in what she thinks best, without consulting her husband.*

*How appropriate do you think it is for the woman to make the investment decision on her own? Do you think her decision is very socially appropriate, somewhat socially appropriate, somewhat socially inappropriate or very socially inappropriate?*

Close to 70% of the sample considered this to be a socially appropriate (or very appropriate) action whether asked about their household member or a stranger female. Interestingly, twice as many women perceive men as thinking this to be a very inappropriate action as compared to men's perception of women's judgement (see first row of Table 7.10 for female and male samples). When paired with household members, this increases to four times as many women than men. From these results, it seems that the perception of women about how men think is 'stricter' than men's perception of women both strangers and household members.

**Table 7.10: Choice in Each Round by Gender (%)**

	Stranger, opposite gender	Stranger, same gender	Household member
<i>Female</i>			
Very inappropriate	22.01	20.9	24.63
Inappropriate	16.04	16.04	14.55
Appropriate	29.48	29.1	25
Very appropriate	32.46	33.96	35.82
<i>Male</i>			
Very inappropriate	8.58	7.09	6.72
Inappropriate	16.79	19.4	18.66
Appropriate	44.03	40.67	37.69
Very appropriate	30.6	32.84	36.94

### 7.3.1 Intent to Treat (ITT) Analysis

We consider the decision taken by the women who we intended to treat as compared to those who were not. We find that there is no significant difference in allocation between the two groups when the information could be made public (for both types of partner matching as well when it is earned versus unearned). On the other hand, when it is to be kept private, the group that was treated keeps significantly more for themselves when they are matched with a stranger. This could likely indicate women in the treatment group having a greater experience of handling money or just merely that they are lesser empowered than the control group and so when it is a family member, they give more. Further, there is no significant difference in the risk preference across the two groups or in their choices for norms under different partner matching.

## 8 Conclusion

This study looks at a microfinance product for new business start-ups run by women in Pakistan. The main research aim of this study was to measure when provided with access to finance, how many of the applicants to a large microfinance bank set up a business by the midline one year later. Apart from finance as a constraint, we also used in-field experiments to measure constraints in the form of self-control (risk preferences) and pressures from within the household.

The results of the RCT provide some evidence that targeting aspiring female entrepreneurs with a business plan to receive microenterprise loans can actually lead to business creation for such a sample. However, while we find a significant impact of the microfinance product on the likelihood of setting up a business within one year of it being offered, this effect is transitory and disappears after two years. The loan also does not translate into any improvement in household asset holdings as well as women's independence in making ordinary household decisions over the same year.

Second, we also find that individuals who report having received training by Kashf at the time of loan disbursement are more likely to set up a business. This gives direction for products in the future to include basic training. In addition, women whose mothers set up a business are more likely to set up a business. On the other hand, older women are less likely to set up a business. Such characteristics can be used to screen successful borrowers for micro-enterprise loans.



Third, incentivised experiments reveal that women in both groups are not very different from each other when it comes to exerting control over finances or in their risk preferences. Results are also indicative of household and social dynamics playing an important role in the setting up of enterprise. For instance, women may fear the appropriation of their business resources and earnings by household members. We also find some evidence that women perceive their household member's preferences to be less favourable towards independent decision making by women than they actually are. This raises interesting questions whether it is the women themselves who impose constraints on themselves, contrary to the popular belief that they are not allowed to make these independent decisions by their families.

Fourth, we do find some evidence that women perceive their household member's preferences to be less favourable towards independent decision making by women than they actually are. This is particularly the case for the sub-group of women who are housewives and this raises interesting questions about whether it is the women themselves who impose constraints on themselves. This would be in contradiction to the popular belief that they are not allowed to make these independent decisions by their families. The household dynamics uncovered via incentivised measures in this study can help design a product that can be successfully utilized for business creation.

Finally, setting up a business does not translate into any improvement in household asset holdings as well as women's independence in making ordinary household decisions over the same year. This result is not unique and replicates the results from interventions in other regions (Bosnia, Ethiopia, India, Morocco and Mongolia as summarized in Banerjee, Karlan and Zinman, 2015).

## References

- Andreoni, J., & Sprenger, C. (2012). Risk preferences are not time preferences. *The American Economic Review*, 102(7), 3357-3376.
- Angelucci, M., D. Karlan, and J. Zinman (2012). Win some lose some? Evidence from a randomized microcredit program placement experiment by Compartamos Banco.J-PAL Working Paper.
- Asim, S. (2009). Evaluating the impact of microcredit on women's empowerment in Pakistan. CREB Working Paper 03-09.
- Banerjee, A., Duflo, E., Glennerster, R., and Kinnan, C. (2015). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics*, 7(1): 22-53.
- Barr, A., & Genicot, G. (2008). Risk sharing, commitment, and information: an experimental analysis. *Journal of the European Economic Association*, 6(6), 1151-1185.
- Binswanger, H. P. (1980). Attitudes toward risk: Experimental measurement in rural India. *American journal of agricultural economics*, 62(3), 395-407.
- Cameron, L., & Shah, M. (2015). Risk-taking behavior in the wake of natural disasters. *Journal of Human Resources*, 50(2), 484-515.
- Crépon, B., E. Duflo, F. Devoto, and W. Pariente (2013). Impact of microcredit in rural areas of Morocco: Evidence from a randomized evaluation. J-PAL working paper.
- de Mel, S., McKenzie, D., and Woodruff, C (2009). Are women more credit constrained? Experimental evidence on gender and microenterprise returns. *American Economic Journal: Applied Economics* 1, 1–32.
- Fafchamps, M., McKenzie, D., Quinn, S., and Woodruff, C. (2014). Microenterprise growth and the flypaper effect: Evidence from a randomized experiment in Ghana. *Journal of Development Economics* 106, 211-226.
- Fisher, R. A., & Mackenzie, W. A. (1923). Studies in crop variation. II. The manurial response of different potato varieties. *The Journal of Agricultural Science*, 13(03), 311-320.
- Ghalib, A. K., Malki, I., & Imai, K. S. (2011). Impact of microfinance and its role in easing poverty of rural households: Estimation from Pakistan. Research Institute for Economics and Business Administration Discussion Paper Series DP2011-28
- Krupka, E. L., & Weber, R. A. (2013). Identifying social norms using coordination games: Why does dictator game sharing vary?. *Journal of the European Economic Association*, 11(3), 495-524.

Setboonsarng, S., & Parpiev, Z. (2008). Microfinance and the millennium development goals in Pakistan: impact assessment using propensity score matching. ADB Institute Discussion Paper No. 104

Tarozzi, A., Desai, J., and Johnson, K. (2013). On the Impact of Microcredit: Evidence from a Randomized Intervention in Rural Ethiopia. BREAD Working Paper No. 382.

## **Annexure A - Randomized Controlled Trial**

### **Randomization Strategy**

To optimise on robustness and internal validity of results, this impact evaluation employs the experimental approach. It was not possible to use a clustered randomization strategy in this case since the selected branches for the introduction of this product cover nearly all branches of the organization in a particular area. Since these branches are primarily urban, finding a city with similar characteristics was not feasible. Therefore, the balanced randomization strategy involved each branch selecting an average of 20 possible borrowers as the target set each month. Nine of these were randomly assigned to the treatment group i.e. were given the loan and the rest formed the control group. This randomization was done by the research team based at the Centre for Research in Economics and Business at the Lahore School of Economics for each branch every week after which the product was offered to those designated as the 'Treatment' group. The product (KIKK) was not offered to the 'Control' either at the initial stages or at any point during the period of evaluation between the baseline and end-line surveys. Kashf field staff was to ensure controlled interaction and minimization of product spillover from the treatment to the control group. Both the treatment and control group were surveyed approximately one-year after the product was offered to study the short to medium term impact of the product across the outcome variables. Randomization would provide a sample that is well balanced across the treatment and control group characteristics so that any change in the outcome variables, can be attributed to the intervention alone. This enables us to provide a causal relationship between the product (intervention) and the impact seen in the variables of interest.

Each branch provided the list of potential clients on Thursday of every week and was sent the list of control and treatment clients by the research team the following day. The randomisation strategy was finely defined in this study – randomisation was done not only at the branch level but at the Business Development Officer (BDO) level. Every BDO earned an incentive for each disbursement and a BDO level randomisation ensured that the randomization does not result in an unequal distribution of this incentive. Furthermore, from the point of view of analysis, randomisation at the BDO level removes BDO level effects.

### **Sampling Strategy**

The product (KIKK) was planned to reach out to 2,280 borrowers from 20 branches during 10 months (January to October 2014). The study was rolled out in May 2014 and so loans extended in the three months from May to July 2014 for three districts of Punjab compose our evaluation sample. As part of the study, four branches were based in the city of Gujrat, 5 in Bahawalpur and 4 in Sialkot.

## Annexure B

### CONFIDENTIAL

### MIDLINE HOUSEHOLD QUESTIONNAIRE

Center for Research in Economics and Business, Lahore School of Economics

July– August 2015

Sr.#	Questions	Answers	Codes	Instructions
1	Enumerator Name and Code			
2	District Name and Code			01 – Bahawalpur 02 – Gujrat 03 - Sialkot
3	Branch Name			<i>As per baseline listing</i>
4	Area Name (muhalla)			
5	Respondent Name (5a) and Code (5b)			<i>As per baseline listing</i>
6	Contact number of the respondent			
7	Address			
8	<b>Date of Interview</b>	<b>Day    Month    Year</b>		
9	<b>Reason for respondent being unavailable for the interview (not observation)</b>			

Branch codes:

Bahawalpur-01	100	Kharian	112
Bahawalpur-02	101	Pasrur	108
Bahawalpur -03	103	Sambrial	109
Gujrat – 01	110	Sialkot - 02	107
Gujrat – 03	113	Sialkot – 03	<b>106</b>
Jalal Pur Jattan	111	Yazman	104
Khankah Sharif	105		

### Enumerator Instructions

1. If question calls for years and the answer is in months, please write the actual number of months and specify that the measurement is in months.
2. If the respondent **Does not want to answer**, please write 8888
3. If the respondent **Does Not Know**, please write 9999
4. If the question does not apply or the answer is not in the list of options, then write 0000

### Participant Consent

I am from [enumerator firm] and I am here on behalf of researchers from the Lahore School of Economics, which is a private university in Lahore. I want to ask you to participate in a survey about the wellbeing of your household and business that will help us understand your needs better. Researchers from the Lahore School of Economics will be using your responses to the for educational research purposes only. It will have no bearing on your current or future relationship with any organisation. Your responses will be recorded with a number, and your name will not be shared with anyone.

Participation in the survey is voluntary. If you don't know the answer, or do not want to answer any question, just let me know, and I will go to the next question. If you need to stop the survey, you can do so at any time. While participation is voluntary, refusal to answer some questions will weaken the study.

This survey will take about 45 minutes. You will receive a participation fee of Rs. 500 as a compensation for your time and as a token of our appreciation. In case of any questions, please feel free to call Mr.Masood Jan (0300 5961401) or Mr.Naeem Khan (Cell: 0300 5155850)  
Do you agree to participate in the survey?

YES -> Continue reading    NO -> Next household

[Enumerator should make sure that the respondent is sitting in a comfortable place and that the enumerator and respondent are sitting at the same eye level.]

**A. DEMOGRAPHIC INFORMATION – Ask for all members of the household. Household is defined as all the individuals who eat from the same stove/kitchen.**

Line number	A.1 Age in complete years as per last birthday	A.2 Sex 1. Male 2. Female	A.3 Marital status (for those above the age of 10) 1. Married 2. Widowed 3. Divorced 4. Unmarried 5. Separated	A.4 What is the relationship with the main respondent? 1. Self 2. Husband 3. Son or Daughter 4. Son or Daughter-in-Law 5. Grandchildren 6. Father 7. Mother 8. Father-in-Law 9. Mother-in-law 10. Brother or sister 11. Brother or sister in law 12. Other relatives 13. Not related	A.5 Level of education in complete years 1. Illiterate 2. Less than primary 3. Primary 4. Middle 5. Metric 6. FA/FSc 7. BA and above	A. 6 What is primary occupation? 1. Self-Employed ( <b>go to A.7</b> ) 2. Government/semi Govt /private institution Employee 3. Labourer 4. Rent from shop/house/farm/tractor/tubewell 5. Agriculture/Livestock 6. Retired with Pension 7. Unemployed a. looking for work b. not looking for work 8. Housewife 9. Student (no income)  <b>If not self employed, go to A.9</b>	A.7 What type of business is it? 1. Agriculture/livestock 2. Repair work 3. Personal services and consumer goods (beauty parlour, stitching etc) 4. Food vendor 5. ICT (mobiles and computers) Other: _____	A.8 In what year was the business started?
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
<i>All following questions are for the main respondent, not for any other household member</i>								

A.9	What is the relationship of the household head to you?	1. Self 2. Husband 3. Son or Daughter 4. Son or Daughter-in-Law 5. Grandchildren 6. Father 7. Mother 8. Father-in-Law 9. Mother-in-law 10. Brother or sister 11. Brother or sister in law 12. Other relatives 13. Not related
A.11	The number of completed years you have lived in this city/neighbourhood?	_____ (years)
A.12	If married, does your husband work in the same city?	1. Yes 2. No
A.13 a	Have you ever had any vocational training?	1. Yes 2. No (go to next section)
A.13 b	If yes to A.13, specify what the training or diploma was for	1. Beautician 2. Embroidery/stitching 3. IT/computer course 4. Other (specify: _____)

## B. ASSETS AND EXPENDITURE MODULE

ASSETS (BA)		
BA.2	Main material of the dwelling floor:  <b>(Don't ask, record observation).</b>	a. Katcha (Earth/sand/Rudimentary floor) b. Finished floor (Bricked /Cemented with marble chips/Tiles/marble floor)



BA.3	Main material of the roof.  <b>(Don't ask, record observation).</b>	a. Natural roofing (No roof/Thatch/palm leaf/Rustic mat/bamboo beams/ "Kanne") b. Finished roofing (Tin with iron girders/Wooden beams/Ceramic tiles/Cement/concrete)		
BA.4	Who owns the house and the land on which the house sits?	a. Owned by household member - Self i. Owned by household member - Male member ii. Owned by household member - Female member b. Rented c. Rent free d. Government/subsidized rent e. Mortgaged or pledged Other (Specify) _____		
BA.5	Do you have the following in your house?  <b>(Record what you can observe yourself, ask about the rest).</b>		Yes (1)	No (2)
		1. Electricity		
		2. Gas		
		3. Radio		
		4. Television		
		5. Cable (television)		
		6. Telephone		
		7. Fans		
		8. Lights		
		9. Mobile telephone		
		10. Computer		
		11. Internet connection		
		12. Refrigerator/freezer		
		13. Air conditioner		

		14. Washing machine/dryer		
		15. Cooking range/microwave		
		16. Sewing machine		
		17. Iron		
BA.6	How many of the following animals does this household have?  (Write 0000 if none.)	a. Cows/calf ----- b. Buffaloes/calf ----- c. Bulls/oxen ----- d. Camels/horses/donkeys ----- mules e. Goats/sheep ----- f. Hens/poultry ----- g. Other (Specify) -----		
<b>EXPENDITURE AND INCOME (BE)</b>				
BE.1	For each of the following, can you recall how much your household spends in an average month (Rs.)? <b>If any of these are not a typical monthly expenditure then record 0000.</b>	A. Total monthly expenditure: ----- 1. Food ----- 2. Clothing ----- 3. Utilities ----- 4. Fuel ----- 5. Public transport (bus/taxi/rickshaw) ----- 6. School fees ----- 7. Medical fees (doctor or medicine) ----- 8. Mobile phone ----- 9. Recreation/entertainment ----- 10. Maintenance of house/property ----- 11. Taxes ----- 12. Interest or principal payments on loans ----- 13. Money sent to family members outside this settlement ----- 14. Gifts to others ----- 15. Set aside for savings ----- 16. Other: Specify -----		

BE.2	For each of the following sources, what was your average household income?	<p>A. Total monthly income: -----</p> <p>1. Non-agriculture: -----</p> <p>    a. work outside home -----</p> <p>    b. business -----</p> <p>2. Home-based work (These may include handicrafts by women) -----</p> <p>3. Children's work -----</p> <p>4. Rental payments -----</p> <p>5. Agriculture: -----</p> <p>6. Remittances ----- (any money received on a regular basis from another city or country)</p> <p>7. Government payments (These may include BISP, Bait-ul-maal) -----</p> <p>8. Zakat -----</p> <p>9. Other: Specify -----</p>
BE.3	Of the members of your household, who usually makes the final decision about spending money in your household?	<p>[Enumerator: Please write the first name of this person. Please check that this person appears in the roster in module A.]</p> <p>First name: _____ BE.3a</p> <p>Line number from the roster: _____ BE.3b</p>

### C. EMPOWERMENT

<i>Ask questions C.1 – C.5, if woman unmarried</i>		
C.1	Who in your household decides whether you can start or continue to get education?	<p>1. Woman herself</p> <p>2. Head/Father of the household decides alone</p> <p>3. Head/Father in consultation with his/her spouse</p> <p>4. Head/Father in consultation with the woman concerned</p> <p>5. Head/Father and spouse of the head in consultation with the woman concerned</p> <p>6. Head/Father and other male members decide</p> <p>7. Other combination of persons decide</p> <p>8. Woman concerned has no interest in study/work</p> <p>9. Too old to study or work</p> <p>    a. If yes to (9) above, who in your family decides if you are too old to study or</p>

		work? Specify using options 1 – 7 above _____
C.2	If you are working, who in your household decides whether you can seek or remain in paid employment?	<ol style="list-style-type: none"> <li>1. Woman herself</li> <li>2. Head/Father of the household decides alone</li> <li>3. Head/Father in consultation with his/her spouse</li> <li>4. Head/Father in consultation with the woman concerned</li> <li>5. Head/Father and spouse of the head in consultation with the woman concerned</li> <li>6. Head/Father and other male members decide</li> <li>7. Other combination of people decide</li> <li>8.</li> </ol>
C.3	<p><b>Ask if not in paid employment and not seeking work</b></p> <p>Why are you not actively seeking paid work?</p>	<ol style="list-style-type: none"> <li>1. Not permitted by father to work outside home</li> <li>2. Don't want to work outside home</li> <li>3. Not enough job opportunities in the region</li> <li>4. Pay too low</li> <li>5. Too busy doing domestic work</li> <li>6. Too Old / Retired/ Sick / Handicapped</li> <li>7. Does not posses any skill</li> <li>8. Student</li> <li>9. Other (specify):</li> </ol>
C.4	<p>Who in your household usually makes decisions about the following? (specify option in space given)</p> <ol style="list-style-type: none"> <li>1. Woman herself</li> <li>2. Head/Father of the household decides alone</li> <li>3. Head/Father in consultation with his/her spouse</li> <li>4. Head/Father in consultation with the woman concerned</li> <li>5. Head/Father and spouse of the head in consultation with the woman concerned</li> <li>6. Head/Father and other male members decide</li> <li>7. Other combination of people decide</li> </ol>	<ol style="list-style-type: none"> <li>A. Clothing and footwear: _____</li> <li>B. Medical treatment: _____</li> <li>C. Recreation and travel: _____</li> <li>D. Visit friends in the neighbourhood _____</li> <li>E. Make small purchases for yourself (e.g. clothes) _____</li> <li>F. Make small purchases for others in the household (e.g. kitchen utensils) _____</li> <li>G. Join a credit group/committee _____</li> <li>H. Invest surplus money _____</li> <li>I. Your marriage _____</li> <li>J. Loan from an organisation _____</li> </ol>
C.5	How confident are you that you alone can raise enough money to feed your family for 4 weeks? – this could be for example by selling things you own, by working or by borrowing money	<ol style="list-style-type: none"> <li>1. Very confident</li> <li>2. It is possible / moderately confident</li> <li>3. Not possible</li> <li>4. Don't know</li> </ol>

<i>If woman is married or has ever been married, ask questions C.6 – C.11, else end module</i>		
C.6	How long have you been married/divorced/widowed? (Years)	_____
C.7A	Who in your household decides whether children in your household can start or continue to get education?	<ol style="list-style-type: none"> <li>1. Woman herself</li> <li>2. Head/Father of the household decides alone</li> <li>3. Head/Father in consultation with his/her spouse</li> <li>4. Head/Father in consultation with the woman concerned</li> <li>5. Head/Father and spouse of the head in consultation with the woman concerned</li> <li>6. Head/Father and other male members decide</li> <li>7. Other combination of persons decide</li> <li>8. Woman concerned has no interest in study/work</li> <li>9. Woman concerned is too old to work</li> </ol>
C.8	Who in your household decides whether you can seek or remain in paid employment?	<ol style="list-style-type: none"> <li>1. Woman herself</li> <li>2. Head/Father of the household decides alone</li> <li>3. Head/Father in consultation with his/her spouse</li> <li>4. Head/Father in consultation with the woman concerned</li> <li>5. Head/Father and spouse of the head in consultation with the woman concerned</li> <li>6. Head/Father and other male members decide</li> <li>7. Other combination of persons decide</li> <li>8.</li> </ol>
C.9	<b>Ask if not in paid employment and not seeking work</b>  Why are you not actively seeking paid work?	<ol style="list-style-type: none"> <li>1. Not permitted by husband to work outside home</li> <li>2. Don't want to work outside home</li> <li>3. Not enough job opportunities in the region</li> <li>4. Pay too low</li> <li>5. Too busy doing domestic work</li> <li>6. Too Old / Retired/ Sick / Handicapped</li> <li>7. Does not posses any skill</li> <li>8. Student</li> <li>9. Other</li> </ol>
C.10	How confident are you that you alone can raise enough money to feed your family for 4 weeks? – this could be for example by selling things you own, by working or by borrowing money	<ol style="list-style-type: none"> <li>1. Very confident</li> <li>2. It is possible / moderately confident</li> <li>3. Not possible</li> </ol>

		4. Don't know (9)
C.11	<p>Who in your household usually makes decisions about the following?</p> <ol style="list-style-type: none"> <li>1. Woman herself</li> <li>2. Head/Father of the household decides alone</li> <li>3. Head/Father in consultation with his/her spouse</li> <li>4. Head/Father in consultation with the woman concerned</li> <li>5. Head/Father and spouse of the head in consultation with the woman concerned</li> <li>6. Head/Father and other male members decide</li> <li>7. Other combination of persons decide</li> </ol>	<ol style="list-style-type: none"> <li>A. Clothing and footwear: _____</li> <li>B. Medical treatment: _____</li> <li>C. Recreation and travel: _____</li> <li>D. Visit friends in the neighbourhood</li> <li>E. Make small purchases for yourself (e.g. clothes)</li> <li>F. Make small purchases for others in the household (e.g. kitchen utensils)</li> <li>G. Join a credit group/committee</li> <li>H. Invest surplus money</li> <li>I. Loan from an organisation _____</li> </ol>

#### D. COMMUNITY INTERACTION

D.1a	Have you or any one in your household participated in a community mobilization/training programme of any organization <i>in the last one year</i> ?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>1. No (skip to D.4a)</li> </ol>
D.2a	If yes to D1a, please list the organisations( as many as needed)	<ol style="list-style-type: none"> <li>A. _____</li> <li>B. _____</li> <li>C. _____</li> <li>D. _____</li> </ol>
D.3a	<p>How frequently did you meet the group members in this programme?</p> <ol style="list-style-type: none"> <li>1. Once a week</li> <li>2. Twice a month</li> <li>3. Once a month</li> <li>4. Once in six months</li> </ol> <p>(fill this in the same order as the listing of the organizations in D2.a)</p>	<ol style="list-style-type: none"> <li>A. _____</li> <li>B. _____</li> <li>C. _____</li> <li>D. _____</li> </ol>
D.4a	Have you or anyone in your household participated in committee productin <i>in the last one year since May</i> ?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No (skip to D9)</li> </ol>
D.5a	How much was each committee payment? (multiple responses allowed)	<ol style="list-style-type: none"> <li>A. Rs _____</li> <li>B. Rs _____</li> </ol>

		C. Rs _____ D. Rs _____
D.6a	What was the frequency of the payment?  (for example: weekly, monthly) [enumerator: enter in same order as D5a above]	A. _____ B. _____ C. _____ D. _____
D.7a	How long was the committee for? (MONTHS)	
D.9	In the last year, did your household experience  (Tick all that apply)	1. Death or serious illness of an adult of the household 2. Death or serious illness of a child of the household 3. Unexpected disruption or cessation of a reliable source of income for the household 4. Unexpected large payment to be made 5. Other (specify): _____ <b>If no to all of the above, go to D.12.</b>
D.10	If yes, to any of the options in D.9 above, did any one in the community provide assistance? If no to all questions, end module.  (Tick all that apply)	1. Friends/relatives 2. Neighbours 3. Local elected official 4. Police 5. NGO workers 6. Religious leader 7. Arthi or moneylender 8. Other (specify) _____ 9. No one. (go to D.12)
D.11	What was the nature of this assistance?	1. Monetary assistance 2. Non-monetary assistance (clothes, medicine, food, etc)

**Enumerator:** Please loop through the names on the community list (please pre-fill name and Ids before starting). For each name, please fill one row of the table.

Name	ID	D-14 Do you know this person?	D-15 How often do you meet this person?	D-16 Did this person take a loan from Kashfto start a business?	D-17 If 'yes' – did this person receive training from Kashf?
		1 – Yes 2 – No (go to next row) 3 – Could not be identified.	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months 5. Other (specify)	1 – Yes 2 – No	1 – Yes 2 – No
D12a	D13a	D14a	D15a	D16a	D17a
D12b	D13b	D14b	D15b	D16b	D17b

D12c	D13c	D14c	D15c	D16c	D17c
D12d	D13d	D14d	D15d	D16d	D17d
D12e	D13e	D14e	D15e	D16e	D17e
D12f	D13f	D14f	D15f	D16f	D17f
D12g	D13g	D14g	D15g	D16g	D17g
D12h	D13h	D14h	D15h	D16h	D17h
D12i	D13i	D14i	D15i	D16i	D17i
D12j	D13j	D14j	D15j	D16j	D17j

#### E. CURRENT LOANS

E.1a	In the last one year, has any one in this household taken a new loan? <i>[Enumerator: This question refers to loans other than the loans Kashf provided for new business start-ups a year ago]</i>		No. of loans _____ If none (0000), skip to Question E.8		
<b>Ask E.2 – E.6 for all outstanding loans. Use a separate row for each loan</b>					
	E.2a For what purposes was the loan taken  1. Start a new business 2. Acquire new assets 3. To buy stock 4. To cover the running expenditure of existing business 5. Temporary difficulty 6. Repay old business debt 7. Health 8. Repay old household debt 9. Marriage 10. Funeral 11. Buy household durable 12. Home improvements/repair 13. Unemployment 14. Land	E.3a From whom was the loan taken?  1. Family member 2. Commercial bank 3. KASHF 4. Other MFI (Micro Finance Institution) 5. SHG (Self-help group) or other savings group 6. Moneylender 7. Friend 8. Neighbour 9. Shopkeeper 10. Your client 11. Your source for input 12. Cooperative 13. Finance company 14. Provident Fund 15. Other, SPECIFY	E.4a How long ago was the loan taken out? (in months)	E.5a Who in your household decided to take this loan? (record line number from module A)	E.6a What is the total amount of the loan?  <b>After this question, skip to Q E.10</b>



	15. Education 16. Home Construction 17. Purchase of plot 18. Jewellery purchase 19. Regular consumption				
1					
2					
3					
4					
5					
E.8	Why does the household have no loan at the moment?	1. No need for a loan 2. Need a loan, but could not obtain one 3. Need a loan, but worried that cannot make repayment 4. Need a loan, but interest rate too high 5. Other SPECIFY 6. (tick all that apply)			
E.10	Does anyone in your household have a bank account:	1. Yes 2. No (skip to E.11)			
E.10a	If yes, how often is this account used by your household members?	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months 5. Other (specify)_____			
E.10b	Do anyone in your household, have an ATM card?	1. Yes 2. No			
E.11	Do you, or anyone in your household, have an insurance policy	1. Yes a. Health b. Life c. Other (specify): _____ 2. No			

**G. CURRENT (IN THE LAST ONE YEAR since May 2014 ) BUSINESS INFORMATION (IF ANY)**

G.1	Do you have a business (either on your own or jointly)	1. Yes 2. No (Skip to G18)
G.1a	Do you have more than one business	1. Yes 2. No
Ask G.2 to G5 for all businesses. Use a separate row for each business		

	G. 2 When did you start this business ?(months ago)	G.3 What kind of a business is it? 1. Agriculture/livestock 2. Repair work 3. Personal services and consumer goods - beauty parlour 4. Personal services and consumer goods – stitching, embroidery, knitting. 5. Personal services and consumer goods – handicrafts. 6. Personal services and consumer goods – grocery store. 7. Food vendor 8. ICT (mobiles and computers) 9. Other (Specify): _____	G.4 In what capacity are you involved?  1. Owner (skip to G6) 2. Partner (a partner is someone who shares the profit of the business with you, rather than earning a wage)	G.5 Who is the business partner?  1. Household member (RECORD Line number from module A _____) 2. Outside the household: a. Male friend/neighbour b. Female friend/neighbour c. Male relative d. Female relative
1				
2				
3				
4				
5				
[Enumerator: If more than one business ] ‘Now I will ask you about your main business. When I say ‘main’ business, I mean the business that you spend the most time on. Please keep this business in mind when you answer the next questions’				
G.6	Do you have any employee? (employees are individuals who earn a wage for working for you. Do not include household members).		1. Yes 2. No (skip to G8)	
G.7	How many employees do you have? (record number)		_____	
G.8	Does any one else from the household work in your business, without being a partner (eg: children)?		1. Yes 2. No	
G.9	How many hours of work are put in the business in an average week by  (Enumerator: please fill for all that apply)		1. Self _____ 2. Partner _____ 3. Paid employee _____ 4. Family member _____	
G.10	What is the primary location out of which your business operates?		1. At home 2. Outside the home	
G.11	What was the total start up costs of the business?		Rs. _____	
G.12	How much of the total start up costs contributed by		1. Respondent Rs. _____ 2. Other members of the household Rs. _____ 3. Partners Rs. _____ 4. Loans Rs. _____	

G.13	What is the total value of the assets invested in the business? (Assets include machinery, equipment, vehicles, computers, buildings, furniture, and anything tangible.)	Rs. _____
G.14	What is the total expenditure of this business in an average month?	Rs. _____
G.15	What are the total sales of this business in an average month?	Rs. _____
G.16	What is the total profit from this business in an average month?	Rs. _____
G.17	Do you maintain written records?  <b>Go to next section after this question.</b>	1. Yes 2. No
G.18	Did you start a business in the past one-year that you had to shut down?	1. Yes 2. No (skip to G.23)
G.19	What kind of a business was it?	1. Agriculture/livestock 2. Repair work 3. Personal services and consumer goods (beauty parlour, stitching etc) 4. Food vendor 5. ICT (mobiles and computers) 6. Other: _____
G.20	What was the total start up costs of the business?	Rs. _____
G.21	How much of the total start up costs contributed by	1. Respondent Rs. _____ 2. Other members of the household Rs. _____ 3. Partners Rs. _____ 4. Loans Rs. _____
G.22	What was the main reason the business shut down?  (then skip to next section)	1. Making loss 2. Unable to continue working due to responsibilities at home 3. Unable to meet fixed costs of operations 4. Did not have the required expertise 5. Other (Specify): _____
G.23	Did you think about starting a business in the last one year?	1. Yes 2. No (skip to next section)
G.24	Why did you not start a business?	1. Lack of finance 2. Unable to work due to responsibilities at home 3. Did not have the required expertise 4. Other (Specify) _____

## H. PERCEPTION AND UNDERSTANDING MODULE

H1. [Enumerator: Ask these questions in a sequence. Stop when the respondent changes answer from 1 to 2 or vice versa]		
H.1a	Would you prefer to receive Rs. 5000 tomorrow, or Rs. 4500 one month from tomorrow?	1: Rs 5000 tomorrow. 2: Rs 4500 one month from tomorrow.
H.1b	Would you prefer to receive Rs. 5000 tomorrow, or Rs. 5000 one month from tomorrow?	1: Rs 5000 tomorrow. 2: Rs 5000 one month from tomorrow.
H.1c	Would you prefer to receive Rs. 5000 tomorrow, or Rs. 5500 one month from tomorrow?	1: Rs 5000 tomorrow. 2: Rs 5500 one month from tomorrow.
H.1d	Would you prefer to receive Rs. 5000 tomorrow, or Rs. 6000 one month from tomorrow?	1: Rs 5000 tomorrow. 2: Rs 6000 one month from tomorrow.
H.1e	Would you prefer to receive Rs. 5000 tomorrow, or Rs. 6500 one month from tomorrow?	1: Rs 5000 tomorrow. 2: Rs 6500 one month from tomorrow.
H.1f	Would you prefer to receive Rs. 5000 tomorrow, or Rs. 7000 one month from tomorrow?	1: Rs 5000 tomorrow. 2: Rs 7000 one month from tomorrow.
H2. [Enumerator: Ask these questions in a sequence. Stop when the respondent changes answer from 1 to 2 or vice versa]		
H.2g	Would you prefer to receive Rs. 5000 in 5 months, or Rs. 4500 in six months?	1: Rs 5000 in 5 months. 2: Rs 4500 in 6 months.
H.2h	Would you prefer to receive Rs. 5000 in 5 months, or Rs. 5000 in six months?	1: Rs 5000 in 5 months. 2: Rs 5000 in 6 months.
H.2i	Would you prefer to receive Rs. 5000 in 5 months, or Rs. 5500 in six months?	1: Rs 5000 in 5 months. 2: Rs 5500 in 6 months.
H.2j	Would you prefer to receive Rs. 5000 in 5 months, or Rs. 6000 in six months?	1: Rs 5000 in 5 months. 2: Rs 6000 in 6 months.
H.2k	Would you prefer to receiveRs. 5000 in 5 months, or Rs. 6500 in six months?	1: Rs 5000 in 5 months. 2: Rs 6500 in 6 months.
H.2l	Would you prefer to receiveRs. 5000 in 5 months, or Rs. 7000 in six months?	1: Rs 5000 in 5 months. 2: Rs 7000 in 6 months.
[Enumerator: Ask these questions in a sequence. Stop when the respondent changes answer from 1 to 2 or vice versa]		
H3. Suppose I invite you to participate in a game with me. This is a hypothetical; we are not actually going to play this game. In one of my hands behind my back, I have Rs. 5000. In the other hand, I have nothing. I am not going to tell you in which hand I hold the Rs. 5000. If you choose the correct hand, you will receive the Rs. 5000; otherwise, you will receive nothing.		
H.3a	Would you prefer to play this game with me, or to receive no money?	1: Play the game. 2: Receive no money.
H.3b	Would you prefer to play this game with me, or to receive Rs. 1000 now?	1: Play the game. 2: Receive Rs. 1000 now.
H.3c	Would you prefer to play this game with me, or to receive Rs. 1500 now?	1: Play the game. 2: Receive Rs. 1500 now.
H.3d	Would you prefer to play this game with me, or to receive Rs. 2000 now?	1: Play the game. 2: Receive Rs. 2000 now
H.3e	Would you prefer to play this game with me, or to receive Rs. 2500 now?	1: Play the game. 2: Receive Rs. 2500 now.
H.3f	Would you prefer to play this game with me, or to receive Rs. 3000 now?	1: Play the game.

		2: Receive Rs. 3000 now.
H.3g	Would you prefer to play this game with me, or to receive Rs. 4000 now?	1: Play the game. 2: Receive Rs. 4000 now.
H.3h	Would you prefer to play this game with me, or to receive Rs. 5000 now?	1: Play the game. 2: Receive Rs. 5000 now.
H4	Imagine that a customer buys two items from you. One costs 550 rupees and one costs 800 rupees. The customer gives you 2000 rupees. How much change do you owe them?	_____
H5	Suppose you had Rs. 100 in a bank account and the return was 20% per year. After 1 year how much do you think you would have in the account if you left the money to grow:	1. more than Rs. 120 2. exactlyRs. 120 3. less than Rs.120
H6	Imagine that the return on your bank account was 5% per year and the inflation was 10% per year. After 1 year, from the money in your bank account, you would you be able to buy:	1. more than what you are able to buy today 2. exactly the same as what you are able to buy today 3. less than what you are able to buy today
H7. Please rate how much you agree/disagree with each statement below, using this scale: 1=Disagree strongly 2=Disagree 3=Neutral 4=Agree 5=Agree strongly		
H7a.	I plan tasks carefully.	1 2 3 4 5
H7b.	(askonly if working) I look forward to returning to my work when I am away from work	1 2 3 4 5
H7c.	I never try anything that i am not sure of	1 2 3 4 5
H7d.	It is important to me to perform better than others on a task	1 2 3 4 5
H8. Has the following ever owned a business. Your:		
H8a.	Mother	1. Yes 2. No
H8b.	Father	1. Yes 2. No
H8c.	Siblings	1. Yes 2. No
H8d.	Spouse (if ever married)	1. Yes 2. No
H9.Please repeat the following numbers back to me [Enumerator: Ask these questions in a sequence. Stop when the respondent answers incorrectly]		
H9a	6, 5, 7	1: Respondent repeats numbers correctly. 2: Respondent does not repeat numbers correctly.
H9b	0, 3, 0, 8.	1: Respondent repeats numbers correctly. 2: Respondent does not repeat numbers correctly.
H9c	4, 5, 3, 2, 4.	1: Respondent repeats numbers correctly. 2: Respondent does not repeat numbers correctly.
H9d	2, 8, 9, 7, 6, 3.	1: Respondent repeats numbers correctly.

		2: Respondent does not repeat numbers correctly.
H9e	0, 8, 6, 2, 7, 3, 1.	1: Respondent repeats numbers correctly. 2: Respondent does not repeat numbers correctly.
H9f	1, 5, 0, 3, 4, 8, 3, 5.	1: Respondent repeats numbers correctly. 2: Respondent does not repeat numbers correctly.
H9g	3, 5, 1, 6, 0, 3, 1, 0, 8	1: Respondent repeats numbers correctly. 2: Respondent does not repeat numbers correctly.
<b>H10. [Enumerator: Ask H10a and H10b only if woman currently has a business as answered by the respondent in question G.1]</b>		
H10a	How do you see your business in 5years:	1. Bigger than now 2. Same as now 3. Smaller than now 4. Closed
H10b	What do you expect the economic conditions for businesses to be like?	1. Better 2. Same 3. Worse
H10c	If your business is a beauty parlor how would you categorize each of the following expenditures: A. start-up, B. fixed, C. variable	1. Buying mirror and chair _____ 2. Rent of the place/shop: _____ 3. Purchase of a cream: _____
H10d	If you run a stitching business from home then how would you categorize the following expenses: A. Household B. Business)	1. Buying thread: _____ 2. Paying the gas bill _____

# **I. THE LOAN PRODUCT (KIKK)**

**Enumerator: This module is only to be administered to people who have received the loan in the list provided to you (indicated with a 1 against their name).**

I.1	How much money did you receive from Kashf?	_____
I.2	What did you do with the money you received from the loan from Kashf? <i>[Enumerator: Please write ALL that apply. Please do NOT prompt the respondent with these categories. Please use the codes below. For each code, write the approximate amount. These must add to the total loan received from Kashf]</i>	
<b>Code</b>	<b>Item</b>	<b>Rs.</b>
I2a	I am still holding the money as cash.	
I2b	I am still holding the money in a bank account.	
I2c	I gave the money to family or friends as a gift.	
I2d	I lent the money to family or friends	
I2e	I used the money to repay a loan from family or friends	
I2f	I used the money to repay a loan from a bank	
I2g	I used the money to repay a loan from Kashf or another microfinance organization.	
I2h	I used the money to pay for a wedding celebration/dowry	

I2i	I used the money to pay for a funeral.	
I2j	I used the money to pay for medical expenses.	
I2k	I used the money to pay for school fees/ school books/equipment or school uniforms.	
I2l	I used the money to pay for clothing (not school uniforms) and/or food	
I2m	I used the money for entertainment purposes (festival/magazines / newspapers / fiction / cinema / theatre / video showing / video renting / gambling).	
I2n	I used the money to purchase a motorcycle / bicycle / rickshaw / car.	
I2o	I used the money to purchase an appliance for my home.	
I2p	I used the money to pay for the purchase of my house (e.g. pay an installment).	
I2q	I used the money to repair my house.	
I2r	I used the money to purchase assets or equipment for my business.	
I2	I used the money to purchase inventories for my business.	
I2t	I used the money to repair the building of my business.	
I2u	Other (specify)	
		<b>Add up to total amount in I.1</b>
I.3	Were you able to pay back the loan to Kashf	1 – Yes (go to I4) 2 - No
I.4	If you were unable to repay the loan, what was the primary reason?	1 – could not repay because did not have regular access to money 2 – could not repay because was unable to save 3 – could not repay because the installment amounts were too high 4 – Other (specify)
I.5 How did you obtain the money to pay back the loan to Kashf? [Enumerator: Please write ALL that apply. Please do NOT prompt the respondent with these categories. Please use the codes below. For each code, write the approximate proportion or %. These must add to a total of 100%]		
Code	Item	
I5a	I used my savings.	
I5b	I used income from my wage job.	
I5c	I used income from my spouse's wage job.	

I5d	I used income from a business that I own.	
I5e	I used income from a business that my spouse owns.	
I5f	I used income of someone else (excluding spouse) in my household.	
I5g	I used income/savings from someone outside of my household.	
I5h	I borrowed money from family or friends.	
I5i	I borrowed money from some other source.	
I5j	I sold one or more of my possessions to obtain the money.	
I5k	Other (Specify): _____	

**J. THE LOAN PRODUCT TRAINING (KIKK)**

**Enumerator: This module is only to be administered to people who have received the loan in the list provided to you (indicated with a 1 against their name).**

J1	Did you receive training from Kashf when you received the loan for setting up a new business?	1. Yes 2. No (skip to end of questionnaire)
J2	Did you share what you learnt with anyone outside your household?	1. Yes 2. No
J3	Did you stay in touch with the trainer?	1. Yes 2. No (skip to J6)
J4	About what? Tick all that apply	1. Suppliers 2. Vendors 3. Marketing 4. Other women involved in similar business 5. Other
J5	How frequently do you meet the trainer?	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months 5. Once in the last year
J6	Did you obtain a list of vendors from the trainer/at the training?	1. Yes 2. No (skip to J8)
J7	How frequently do you use this vendor list?	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months 5. Once in the last year
J8	Do you stay in touch with other women who attended the training session?	1. Yes 2. No (skip to end of questionnaire)



J9	Did you benefit in your business dealings from connection established with other women during the session? (for example, did it help in obtaining information/remaining up to date about prices, vendors, marketing, etc)	1. Yes 2. No
J10	How frequently do you meet the women/woman from this training?  (skip to end of questionnaire)	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months 5. Once in the last year
J11	If did not receive training yourself, do you know anyone who did?	1. Yes 2. No (skip to end of questionnaire)
J12	How frequently do you meet this person?	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months 5. Once in the last year

#### **K. THE LOAN OFFER (KIKK)**

K1	Were you offered a loan to set up a business any time between May – August 2014?	1. Yes 2. No (skip to Q3)
K2	Why did you not take this loan?	1. Did not want it any longer? 2. Was not allowed to take this loan by family members 3. Was not available (e.g. out of city) 4. Could not fulfil loan requirements 5. Other (specify)
K3	Were you informed you were not receiving a loan?	1. Yes 2. No (skip to J6)

Thank-you for your time in answering my questions today.

[Enumerator: Please give the respondent the gift of Rs. [500]. Please explain that this gift is from the Lahore School of Economics, to thank the respondent for his or her time and help with our research].

[Please have the respondent sign or give thumb impression to acknowledge receipt on the first page]

[Invitation to the games to be conducted:]

*If the respondent is married and her answer to A.12 is yes:*

“We would also like to invite you and your husband to participate in a few activities at the end of this week. The purpose of these activities is to better understand how people in this community make decisions, and what their priorities and needs are. The activity is not part of a development project.

After you arrive, we will ask you if you wish to participate in the activities. We will pay you and your husband Rs.1000 each if you both participate for the entire session. In addition you may also earn an average of Rs. 500 each from the decisions you make during the activities. However, you will only receive Rs.1000 each if you and your husband both participate. The total expected time of these activities is approximately 2 hours. Please bring the coupon attached with you if you come. Please note that these activities will only be conducted with you and your husband, not with any other member of your household whom we have not invited.

Inv1.Would you like to participate in the activities that we have invited to you for: 1. Yes (record as 1 even if she says she will confirm after talking to partner) 2.No

In case of any questions about this research, please contact \_\_\_\_\_.”

Enumerator: if the partner is not at home, please ask the respondent for a good time to come talk to the partner and confirm their participation in the activities.

*If the answer to A.12 is NO or if the respondent is unmarried, ask about the availability of the individual identified in BE.3 (Individual X) only if this individual is a male. If the answer to A.12 is NO or if the respondent is unmarried, and if the individual identified in BE.3 (Individual X) female, ask about the availability of a male member (must be older than 18) who usually makes the decisions in the household.*“We would also like to invite you and your \_\_\_\_\_ *[Individual X]* to participate in a few activities at the end of this week. The purpose of these activities is to better understand how people in this community make decisions, and what their priorities and needs are. The activity is not part of a development project.

After you arrive, we will ask you if you wish to participate in the activities. We will pay you and \_\_\_\_\_ *[Individual X]* Rs.1000 each if you both participate for the entire session. In addition you may also earn an average of Rs. 500 each from the decisions you make during the activities. However, you will only receive Rs.1000 each if you and \_\_\_\_\_ *[Individual X]* both participate. Please bring the coupon attached with you if you come. Please note that these activities will only be conducted with you and \_\_\_\_\_ *[Individual X]*, not with any other member of your household whom we have not invited.

The activities will be conducted at \_\_\_\_\_ from \_\_\_\_\_ to approximately \_\_\_\_\_.

Inv2.Would you like to participate in the activities that we have invited to you for: 1. Yes 2. No

In case of any questions about this research, please contact \_\_\_\_\_.”

Enumerator: if the partner is not at home, please ask the respondent for a good time to come talk to the partner and confirm their participation in the activities.

1. Yes (record as 1 even if she says she will confirm after talking to partner)

### **Annexure C - In-field Experiments**

The study also uses incentivised in-field experiments, which were conducted immediately after the completion of the end line survey in each branch area to measure the difference in risk preferences and empowerment levels between the treatment and control clients at the end of the loan cycle. It is hoped that the incentivized structure of these experiments will help to understand empowerment, household and societal dynamics better than non-incentivized questions in surveys allow. One activity was randomly selected for payment to ensure that the earnings in previous activities do not bias the responses in subsequent activities.

**Risk Elicitation:** For risk aversion elicitation we use the standard Binswanger (1980) lottery game design, with one certain choice and 5 other choices with the increasing expected value and deviation (based on Barr and Genicot (2008), also used in Cameron and Shah, 2015). These set of options were presented as representing the selection of a 'red' or a 'yellow' ball which was drawn at the end of this particular activity to reveal to the participants what they would be paid if this round is selected. This was the only round in which the participants were making decisions individually. The bag contained an equal number of red and yellow balls and so the probability of each option being selected was 50%. Given the literacy level of the target sample, the game was kept simple to avoid confusion caused by trying to understand complex probability.

**Empowerment Level Elicitation:** We made use of standard developed protocols of dictator and taking with earned endowments experiments. In the dictator game, the enumerator provides one individual in a pairing with an endowment and this individual then decides how to divide the money amongst him / herself and the partner. In the taking game, each individual conducts a simple sorting activity according to which he / she can earn an endowment. The simple activity we chose was sorting of black chickpeas from white chickpeas. Participants were paid according to the allocation decided by one of the members of the pair. Specifically, each participant could decide how to divide his / her partner's earnings as well as their own. The activities on which their payments would be based were explained first and then they were asked to make the allocation decisions. Participants' responses from these games provide us with a measure of control or pressures from family faced by women and men in determining the use household or individual funds are put to.

We also had the participants play the standard dictator game with a public and private round. This was to understand if women's allocation change when they know they can keep their earnings secret from their spouse as opposed to when they know it is public<sup>10</sup>. To keep the earnings hidden, a coin toss was done which then determined if an amount (kept hidden) would be added or subtracted. Pilot sessions assured us that the participants view this as sufficient to keep their earnings hidden. We did not reveal whether an amount would be added or subtracted once the coin toss was done.

**Norms Elicitation:** In line with Krupka and Weber's (2013) norms elicitation procedure, participants were asked to rank the appropriateness of women making decisions under a hypothetical situation of economic relevance. A participant was to be rewarded if their answer matched that of another participant, (where the partner was a randomly selected male or female participant) providing the incentivised component of the activity. The aim of the activity was to understand how much societal pressures contribute to any challenges faced by

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<sup>10</sup> Public here does not mean that the earnings would be announced to all the participants but rather that in case the round is selected for payment and the female room is selected, the spouse could find out how much the female had given him.

clients in starting and running their business. The matching used in each round (partner, male participant in other room, female participant in same room) allowed us to observe changes in norms due to relation and gender of the matched partner. Due to the concern that this particular activity may reveal to the participants what the aim of the sessions were, it was always kept as the last activity. This was also useful since for this activity they were asked to forget the pairing that they were assigned to at the start of the activities.

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