ESSAYS ON THE CONSTRAINTS ON MICRO-ENTERPRISES RUN BY WOMEN

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SUBMITTED TO DEPARTMENT OF ECONOMICS
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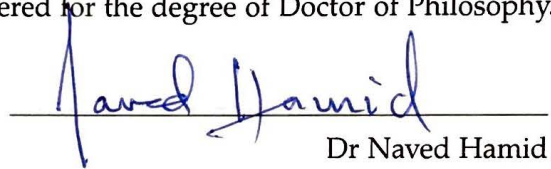
I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality to be considered for the degree of Doctor of Philosophy.

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by

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IN ECONOMICS

Abstract

Female labor force participation in Pakistan is among the lowest in the world. While female participation in enterprise is particularly low in Pakistan, it is nearly always less than that of men around the world, implying additional constraints on enterprise faced by women. Though a significant number of studies have looked at the impact of finance, a holistic measurement of the constraints faced by female entrepreneurs is rare. This dissertation investigates challenges faced by women from low income households in setting up their own enterprise. Chapter 1 uses data from a randomized control trial with 630 women in Punjab, Pakistan where randomly selected microfinance applicants were provided with a small loan and training to set up their own business. The study finds that access to finance does lead to more businesses being set by women, but treated businesses are also more likely to shut down during the year and that the loan fails to improve individual or household outcomes significantly. Chapters 2 uses data from artefactual experiments to investigate norms surrounding resource sharing in the household. Results indicate that resource sharing in the household is related to expectations of appropriation by other household members and a sense of entitlement over own earnings. Chapter 3 uses data from innovative lab-in-field experiments to investigate male and female preferences for businesses set up by women and for their interactions outside the home. Women prefer businesses closer to the home, even if it means constraining the size of the business, and that this 'home bias' extends to other spheres that can influence business growth, such as who to approach for advice. This dissertation provides insight into why many impact evaluations have found limited effects of finance and training on female-owned businesses and suggests taking a holistic approach for encouraging enterprise as an income generating activity for women.

Dissertation Supervisor:
Dr Azam Chaudhry

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I am grateful to my mother for her prayers and understanding throughout a long process and to my brothers for their support and humor even when they did not understand what the fuss was about. I want to thank my husband, Zahir, who bore the brunt of my frustrations with equanimity and love, advised me through countless frustrations and who, as I found out much to my delight, is amazingly adept at troubleshooting field issues.

I dedicate this dissertation to my father, may he rest in peace. His love for learning drives me still.

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Introduction

Pakistan has had a long-standing trend of low female labor force participation: at 22 percent, the female participation rate is one-third that of the males. Female representation in business is slightly higher, with two males to every female entrepreneur in the formal sector and one male for every female entrepreneur in the informal sector.[2] At the same time, conservative norms, household dynamics and a lack of access to finance may mean that setting up a business is significantly more difficult for women than for men. Indeed, according to the Global Entrepreneurship Monitor (2013), men outnumber women 17 to 1 at the start-up stage in Pakistan.[3]

Low female labor force participation is particularly troubling for a developing country like Pakistan that is trying to combat rising poverty and inequality. Paid employment and enterprise can generate income for the household. In addition, women earning their own income has important welfare consequences. For instance, higher welfare gains from financial and information interventions have been documented when the recipient is a female (Duflo, 2003; Duflo and Udry, 2004; Bobonis, 2008; Yoong et al., 2012). Economic independence can directly improve the welfare of the recipient by giving her a say in household decision making (Kabeer, 2001). This dissertation investigates the constraints that women from low-income households face when setting up their own small enterprise. It looks at the role of access to finance in allowing women to set up a business, and the

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[2]All figures are from the Labor Force Survey 2013-14 Annual Report, prepared by the Pakistan Bureau of Statistics.

[3]Global Entrepreneurship Monitor 2012/13, retrieved from `http://www.gemconsortium.org/data/key-indicators`.

effect that finance and enterprise can have on individual and household welfare. The dissertation also investigates if finance alone can sustain a business and looks at the role that household norms and individual preferences have in constraining businesses.

Existing literature shows limited impact of microfinance loans in the lives of female entrepreneurs. Banerjee et al. (2015) summarize results from a series of randomized trials with a financial grant and training program, conducted across a total sample of more than 10,000 individuals in six countries (Ethiopia, Ghana, Honduras, India, Pakistan and Peru). Results indicate no impact on business expenditures or on the female empowerment levels within the household after 2 years but they do show an increase in total household assets, consumption and the number of hours spent on 'productive' activities.[4] A few quasi-experimental studies have looked at the impact of access to microfinance on both men and women in Pakistan, with mixed results. Salman (2008) finds that participation in microcredit programs does not significantly affect household or female empowerment outcomes; while others find a significant increase in income generation activities (Setboonsarng and Parpiev, 2008) and economic well being of the household (Ghalib et al., 2011).

It is worth noting that most literature focuses on the *growth* of existing businesses rather than *setting up* new businesses. In addition, aspiring entrepreneurs are often under-represented in a typical microfinance impact evaluation so that results are imprecisely estimated. Measuring the impact of a group-lending program in Hyderabad, India, Duflo et al. (2013) find that 15-18 months later, access to finance did inadvertently lead to a small number of females starting their own enterprise, but the new businesses did not help the new entrepreneurs escape poverty. It is also possible that microfinance loans, typically small and provided at high interest rates, are inherently ill-suited or insufficient

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[4]Similar results are found for Mexico (Angelucci et al., 2015), Mongolia (Attanasio et al., 2015), Morocco (Crepon et al., 2015), Ethiopia (Tarozzi et al., 2014) and Bosnia and Herzegovina (Augsburg et al., 2015). Meager (2018) and Dahal and Fiala (2018) suggest that the six impact evaluations may have been individually underpowered to detect significant effects, but both caution against pooling results of studies that use different sampling strategies and contexts.

to promote long-term microenterprise growth or creation, though literature shows mixed results. Bandiera et al. (2013), find that large asset transfers (worth approximately $140) were able to increase earnings among the ultra-poor in rural Bangladesh by almost 40%, even after the assistance was withdrawn. They also find a substantial shift among women from agricultural labor to running a business. Similarly, literature shows that business outcomes can improve loan terms are more favorable, e.g. when borrowers are provided with a grace-period before repayment commences (Field et al., 2013), when interest rates are low (Karlan and Zinman, 2013) and when loans have a joint-liability structure (Fischer, 2011).

However, Fafchamps et al. (2014) find that cash grants, without any repayment obligations, had an insignificant impact on both male and female run enterprises, casting doubt on the role of finance alone in enhancing business growth. Other studies suggest that loans alone may be insufficient to prompt the efficient and productive use of the funds alone and that may need to be complemented with skill or training (Bloom and Van Reenan, 2010; Bruhn et al., 2010; McKenzie and Woodruff, 2013; Blattman et al., 2015; Valdivia, 2014). In the case of female entrepreneurs specifically, evidence suggests that a significant proportion of businesses operated by women shut down because of an inability to separate business from household decisions (McKenzie and Paffhausen, 2017).

According to one estimate, 90 percent of female borrowers require permission from their husbands to apply for a loan in the first place; and a third of the rural and two-thirds of urban borrowers likely have no say in how loaned funds are used (Safavian and Haq, 2013). Strategic behavior among household members can mean that loan funds provided to the woman may be captured by other, more powerful members of the family. On the other hand, women as subordinate members of the family[5], may take decisions that allow her greater agency over her resources but are inherently inefficient (Afzal et al., 2018). For instance, women may hide funds from family members, foregoing productive but visible,

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[5]See, for instance, Kabeer (1999) and Carlsson et al. (2012)

investment opportunities, in order to escape the pressure to share resources (Ashraf, 2009; Ashraf et al., 2010; Mani, 2013; Fiala, 2015; Boltz et al., 2015). In line with this explanation, de Mel et al. (2009) and de Mel et al. (2012), find that the gap between male-run and female-run business outcomes in Sri Lanka is lower for women from more 'cooperative' households where they are involved in household decision making.[6]

A strand of literature finds internalized norms can influence a woman's decisions to enter the labor market (Codazzi et al., 2017) or of parents to educate children (Dhar et al., 2015). However, an investigation of the role that traditional gender norms play in a woman's decision to set up or invest in an enterprise has not been explored in literature. If norms about division of household labor and roles in the family are sufficiently internalized, women may prefer to not contravene these norms by engaging in employment or running a business, particularly if that requires them to leave the home or interact with men, even if they have the financial resources to do so (Akerlof and Kranton, 2000).

The first chapter of this dissertation uses data from a randomised control trial in Punjab, Pakistan to the effect of access to finance on the ability of female borrowers to set up new businesses. The analysis uses a balanced panel of 630 study participants, with data collected over three rounds of surveys (2014, 2015 and 2016). Half the sample was randomly selected to receive a small loan ($\sim$ \$300) and 3 hours of capacity building training at the time of loan disbursement.[7] In addition to business creation, the first chapter also investigates if the loan product had an impact on a host of household and individual level outcomes, one year and two years after the loan was first disbursed.

The second chapter of this dissertation explores what drives altruistic behavior in

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[6]Almas et al. (2015); Castilla and Walker (2013); Castilla (2014) and Schaner (2015) conduct similar field experiments and find that spouses who lack information on each others' financial resources, and those that come from non-cooperative households where they do not have a say in decision making, are also more likely to hide their earnings or investments. Kebede et al. (2014) find that individuals are likely to share less of their endowment with a spouse if the size of the endowment remains hidden from the latter.

[7]To be eligible, an applicant had to fulfill all operational and financial criteria typically required by the lending organization, Kashf Foundation. They also had to provide a business plan that the local branch and district offices checked for viability.

households by conducting artefactual experiments with 267 couples who participated in the RCT. Experiments consisted of simple tasks where we vary if individuals have full information regarding each others' decisions, and generate measures of opportunism and respect among household members. Specifically, data includes participant decisions in standard 'dictator' and 'taking' (or the reverse-dictator) experiments, allowing investigation of strategic decision-making when individual decisions can be kept hidden; when endowment has been earned (Cherry et al., 2002); when there is an expectation that personal resources will be appropriated by household members; and when female participants enjoy high levels of agency in their household. Finally, we test if women's experiences, specifically access to finance, can shape these decisions.

The third chapter of the dissertation uses data from innovative experiments to test if gender norms surrounding enterprise by women exist and if they relate to business preferences displayed by men and women. The design allows respondents the 'moral wriggle room' (Dana et al., 2007) to privately provide their preference for the female participant setting up a business; and the preferred location of such a business. Second, the experiments measure the demand for advice from a male household member and from individuals outside the household. A reluctance to obtain advice from experts that do not belong to the household implies individuals are ready to forgo finding out useful business information if the source of information is an outsider. Third, we test if these preferences are affected by the provision of the loan. Access to finance is likely to have limited impact on business creation if such preferences remain unaffected.

The dissertation contributes to literature in four main ways. First, it employs robust experimental techniques to uncover effects of the loan on female-run businesses and preferences regarding businesses and resource sharing based on real life decisions. The first chapter makes use of data from an individual-level, randomized control trial to uncover the impact of access to finance on business creation. The second and third chapters complement data from the RCT with data from artefactual experiments in

the field where decisions have real-life monetary consequences. These experiments are designed to mimic decision making in real life and allow us to observe household dynamics that cannot be revealed by self-reported surveys.

Second, the dissertation adds to the literature on microfinance by investigating the effect of an enterprise loan on enterprise creation, as opposed to a focus on existing businesses in other studies. Third, this is the first attempt to combine real-life decisions in a RCT targeted at encouraging enterprise to decisions in lab experiments that measure sharing and generosity among household members. Methodologically, the study uses a parsimonious design that is easily implementable with a largely illiterate population and can yield meaningful measures of household preferences that correlate significantly with agency outside of the laboratory. Fourth, the final chapter contributes to literature by looking at the role of internalized gender norms on the preference for enterprise and interactions useful for business - that is, the demand for advice from experts outside the household. The existence of both these constraints have been suggested in literature as possible reasons for why microfinance has a limited impact on female enterprise but have not been empirically tested. More generally, this dissertation adds to a growing field of literature that uses artefactual and field experiments to measure intra-household decision making and social learning (Stone and Zafar, 2014; Cole and Fernando, 2012; Barham et al., 2017; Golman and Loewenstein, 2015).

The results from this research will be of direct interest to microfinance organizations operating in Pakistan, often with a focus on female empowerment, and to policy makers that have of late shown considerable interest in promoting enterprise in women and youth. The results of this research will be of direct relevance to both policy makers and practitioners. The government of Pakistan has shown a keen interest in encouraging entrepreneurship among women, a testament to which is the Prime Minister's Youth Business Loan where people of the age 21 to 45 are provided subsidized financing.[8] The

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[8]Prime Minister's Youth Programme (`http://youth.pmo.gov.pk`).

programme specifically requires that half of the funds be disbursed to female borrowers. The microfinance sector in Pakistan, one of the more developed sectors in South Asia (Nation, 2017), gives particular important to female clients. Nearly 60 percent of its' customers are women, with some NGO-based microfinance institutions focus explicitly on women clients with a view to providing them with the opportunity to earn income and improve female empowerment.[9] A key result of the studies included in this dissertation argues that achieving these goals may require an intervention that involves more than only access to finance; for instance, by emphasizing intra-household cooperation and providing women with peer support.

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[9]Specifically, the Kashf Foundation and Aga Khan Rural Support Program - two of the largest and oldest microfinance providers in Pakistan.

Chapter 1

The impact of access to finance on generating enterprise by women[1]

1.1 Introduction

Over the last few decades, microfinance has emerged as an important tool for policy makers to tackle poverty. Financial inclusion has the potential to improve the lives of loan recipients by providing them with credit that allows them to invest in income generating activities, smooth consumption and mitigate financial risks. The general perception in the microfinance sector is that providing a portfolio of products to the previously 'unbanked' population, especially women, can increase their economic empowerment and reduce inequality within and outside the household (Kabeer, 2001). For countries like Pakistan where female labor force participation rate is disproportionately low, and conservative norms and notions of *purdah* restricts female mobility, microfinance provides self-employment opportunities that are closer to home and do not interfere with her responsibilities at home (Zaman et al., 2006; Ginè and Mansuri, 2017). This may explain why more women in Pakistan engage in home-based production rather than wage

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[1]Co-authored with Mahreen Mahmud and Azam Chaudhry

employment in the public space to earn income.[2]

Several large randomised impact evaluations find microcredit has led to a significant increase in investment in small business (Duflo et al., 2013; Angelucci et al., 2015; Attanasio et al., 2015; Crepon et al., 2015; Tarozzi et al., 2014; Augsburg et al., 2015; Banerjee et al., 2015). However, while access to finance led to increased profits of existing businesses, it did not translate into females starting their own enterprises. Further, there was limited evidence in favor of microcredit improving household or female welfare. We have little evidence on the effectiveness of interventions directly aimed at enabling women to set up enterprises. Studies have largely not differentiated between loans for new or existing enterprises, nor do they focus on women who have expressed a desire to set up their own business. This makes it difficult to disentangle the impact of the loan from the effects of experience and survival or to precisely estimate the effect on the likelihood of aspiring entrepreneurs setting up a business.

To investigate the role that access to finance can play in providing women with an income generating enterprise, this study uses data from a field experiment with start-up loan applicants in Punjab, Pakistan. Applicants had to submit a business plan that were evaluated by loan officers employed by our implementing partner, Kashf Foundation. To optimize statistical power, the study uses an individual level randomization to assign approved applicants to the treatment sample that receives the loan.[3] We use a balanced panel of 630 study participants, with data collected in three, annual rounds of surveys between 2014 - 2016 and measure the impact of the loan on business creation and a host of household and individual level outcomes.

We find treatment assignment led to a significant increase in the likelihood of setting

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[2]At 22%, the female participation rate is one-third that of the males. The disparity between male and female participation is even greater in paid employment (13% for women vs. 43% for men) and formal microenterprises (19% for women vs. 41% for men). In the informal sector, the gender ratio is more equitable (albeit low) at 38% for women and 42% for men. All figures are from the Labor Force Survey 2013-14 Annual Report, prepared by the Pakistan Bureau of Statistics.

[3]With the exception of one microfinance impact evaluation (Augsburg et al., 2015), this is the only study that uses an individual level randomization.

up a new, successful business - loan recipients are 24 percentage points more likely to set up a business that survives the year. This effect is much larger than the modest effects found in other studies with loans that did not target start ups (Banerjee et al., 2015). In fact, the result is even more stark when one considers that most business outcomes in other studies were driven by enterprises owned by men (Ginè and Mansuri, 2017; de Mel et al., 2012; Fafchamps et al., 2009; Fiala, 2015). We find many new businesses in the treated sample fail - shutting down over the two years, suggesting that perhaps the loan alone is insufficient for the business creation. It is also possible, as suggested by Banerjee et al. (2014), not all entrepreneurs are able to bear the opportunity cost of their labor.

We also see a large negative effect of existing businesses in the household on the likelihood of females setting up a business. This is a striking result - while microfinance providers view the steady stream of income and experience from an existing business as increasing the likelihood of timely repayments, it has the opposite effect on the intended use of the loan. Treated women are 28 percentage points more likely to set up a business if there are no other business in the household. While we cannot say for certain if the applicant intended to use the loan for setting up her own business or if the intention was always to borrow for the husband, the resulting 'misuse' of funds in such a manner can explain why the loan was found to have no impact on female agency, even among those who did manage to set up a business. This result is reminiscent of recent evidence from Bernhardt et al. (2017) who find, like we do, that this is attributable to the presence of another enterprise in the household run by the husband where the money was invested instead. Our results show that if the intention is to enable women to set up their own enterprise, then lending to women whose family members have an existing business will likely be insufficient, especially if there are no explicit penalties on loan misuse.

We find no effects of the loan on household expenditure but a mildly significant and positive effect on household assets. Access to finance improved, with treated clients more likely to take out other loans at the same time. On the whole, the loan product was

not transformative - individual welfare indicators remained unchanged and household indicators were largely unaffected. We use quantile regressions to explore heterogeneous treatment effects and find that the treatment may have improved female agency for some women in the short run but reduced the asset base and food expenditures over longer time periods.

There are two important caveats to these results. Our sample size is small relative to many other impact evaluations and we may be underpowered to detect otherwise significant effects. However, the economic magnitude of most effects for non-business outcomes are small despite the level of statistical significance. Second, we cannot comment on the external validity of the results. The lender uses a similar appraisal strategy to other microfinance providers in the country and the sample is similar to a typical microfinance sample in South Asia.[4] However, existing evidence on enterprise loans for new businesses by women is rare and a different context, market characteristics or socio-cultural norms towards female enterprise may yield different results.

In the remainder of the paper, we describe the study background and product terms (Section 1.2); and the research design and estimation strategy (Section 1.3). We discuss the results in Section 1.4 and then conclude (Section 1.5).

1.2 Background on the Lender and Study Setting

1.2.1 Kashf Foundation

The lending organisation, Kashf Foundation, is a specialized non-profit microfinance organization in Pakistan. Established in 1996, the organization offers microfinance services to women from low-income households, in an attempt to enhance the economic

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[4]See for instance, Banerjee et al. (2015), Afzal et al. (2017) and Ginè and Mansuri (2017) for impact evaluations of microcredit and microsavings. Weber and Ahmad (2014), Salman (2008), Setboonsarng and Parpiev (2008) and Ghalib et al. (2011) evaluate microfinance programs in Pakistan using quasi-experimental techniques on samples with similar borrower characteristics.

and social status of women in their households and the community at large. Kashf broadly attempts to accomplish these aims through lending directly to women, often also providing financial training and mentoring.

At the time of the baseline, Kashf had nearly 250,000 active borrowers (12.5% of the total active female borrowers in the country), providing an average PKR 10,000 (~$ 100) entry loan at 22% 'service' charge. The flagship enterprise loan, called the *Kashf Karobar Karza* (KKK), involved non-collateralized loans of PKR 30,000 - 100,000 (~$ 300-1,000), backed by a promissory note and a cash flow analysis. In 2014, Kashf Foundation claimed 97% of its enterprise loans had been used for productive business investments but it was likely that only one in five female recipients used the loan for an enterprise that was owned or operated by women[5]. The new *Kashf Ibtada-e-Karobar Karza* (KIKK) loan was an attempt to reduce misutilization by focusing on aspiring female entrepreneurs aiming to set up a new business.

1.2.2 Product Terms and Screening

This KIKK was offered by Kashf Foundation between 2012-2015 as a start up loan for women who want to set up a *new* business. The loan was smaller in size than the pre-existing KKK, ranging from PKR 10,000 - PKR 40,000 (~$100-400).[6] The loan was to be repaid over a year, with repayments starting from the month after disbursement. Applicants had to submit a business plan, along with details of household income and expenditure. The business plan required women to specify existing value of assets that can be used in business, value of assets that will need to be purchased, expected monthly business expenditure and sales. Loan officers determined 'viability' of the proposed business on the basis of two aspects: i) the required investment in assets did not exceed

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[5]According to Kashf Foundation Annual Report 2014-15, `http://kashf.org/wp-content/uploads/2013/04/Annual_Report_2014-2015.pdf` and Pakistan Microfinance Review 2015, `http://microfinanceconnect.info/publications/category/PMR`, accessed 30 January 2017.

[6]The average and median loan size was PKR 30,000. All analysis in section 3.3 is robust to the inclusion of loan amount.

PKR 40,000; and ii) that the business will be able to earn a 20% profit margin by the end of the year. Half of the applicants who were deemed to have a 'viable' business plan, in addition to sufficient household income to repay the loan, were then randomly assigned by the research team to received the loan.[7]

The loan terms required timely payment of the loan installments but did not incorporate an explicit penalty on loan misuse. However, in so far as the loan can be considered a providing access to a line of credit, loan misuse did have an implicit penalty - applicants were informed they will not be provided follow-up loans if they did not end up using the loans as intended, that is, for investment in a business.[9] Treated individuals received the loan and attended a three hour capacity building session on the importance of marketing, networking and keeping written accounts for a new business. The workshop included discussions on setting goals and deadlines for their business; and keeping business and household expenditures separate. Each session was conducted at disbursement for a small group of 4 to 5 successful applicants by loan officers at the local Kashf office. One year after having received the loan and training, 56% of the treated recipients were able to recall the training or its contents. Note, since everyone in the treated sample attended the session, we cannot differentiate between the effect of the loan and effect of attending the session but we do not expect the short session to have had a significant independent effect.

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[7]'Viability' required establishing if the expected set up costs, expenditures and revenues were reasonable given the local conditions and business type. Loan officers at the local Kashf branch were the first to recommend whether a business plan was viable. Their recommendation then had to be approved by the Branch Manager. [8]Approved applicants were forwarded to the research team to be randomly allocated to the treatment and control sample at the end of every month. With individual randomization, we expect any unobserved bias in recommendations of the branch staff will be balanced across the treated and control sample.

[9]The terms were less clear on whether this had to be the respondent's own or a new business. Unfortunately, we do not have information on how strictly this rule was enforced. That is, whether the loan officer could have been persuaded to recommend the same applicant for another loan regardless of whether the first loan was used for business, particularly if all KIKK installments were paid on time.

1.2.3 Study Setting

The KIKK rolled out in January 2014 in peri-urban areas of four districts of Punjab, Pakistan. We conducted and impact evaluation in all 13 branches areas served by Kashf in three of the four districts - Bahawalpur, Gujrat and Sialkot, located in in south and central Punjab.[10] Bahawalpur, located in the south, lags behind the others in terms of educational performance, ranked 31st out of 36 districts in Punjab (Memon et al., 2014) in terms of educational attainment. Gujrat and Sialkot fare better, ranked at 19th and 13th, respectively (Memon et al., 2014). The average monthly household income in Gujrat, Bahawalpur and Sialkot are PKR 51,854 (~$520), PKR 30,294 (~$300) and PKR 29,110 (~$290), respectively.[11] At the time of the baseline, these districts were among the highest served districts in the sector, in terms of both MFI penetration and number of active borrowers.[12]

1.3 Research Design and Implementation

1.3.1 Study Design

Every applicant in 13 branches of selected districts between May and July 2014 was vetted by the local branch staff. Applicants that were deemed to be eligible under the KIKK and Kashf criteria were then passed on to the research team to be randomly allocated to a 'treatment' group that received the loan product (KIKK) and a 'control' group that did not. Every applicant approved by staff at the 13 study sample branches was equally likely to be randomly selected by the research team to receive the KIKK loan.

Figure 1.1 displays the study timeline. To investigate the impact of the enterprise loan

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[10]There were a total of 5 branches in Bahawalpur and 4 each in Gujrat and Sialkot. The fourth districts, Multan, was not selected because all branches piloting the product were located in the city centre, with a very different borrower profile than other branches in the sample.

[11]Inflation adjusted estimates from Pakistan Social and Living Standards Measurement survey 2010-11.

[12]According to MicroWatch Issue 31, 2014 and MicroWatch Issue 37, 2015, `http://www.pmn.org.pk/publications/category/MicroWatch`, Accessed 30 January 2017.

Figure 1.1: *Study timeline and respondents*

Random Assignment
Baseline survey	First follow-up survey	Second follow-up survey
$t = 0$	$t = 1$	$t = 2$
May - Aug 2014	Aug - Sept 2015	Aug - Sept 2016
Number of respondents:		
899	689	630
(49%)	(51%)	(52%)
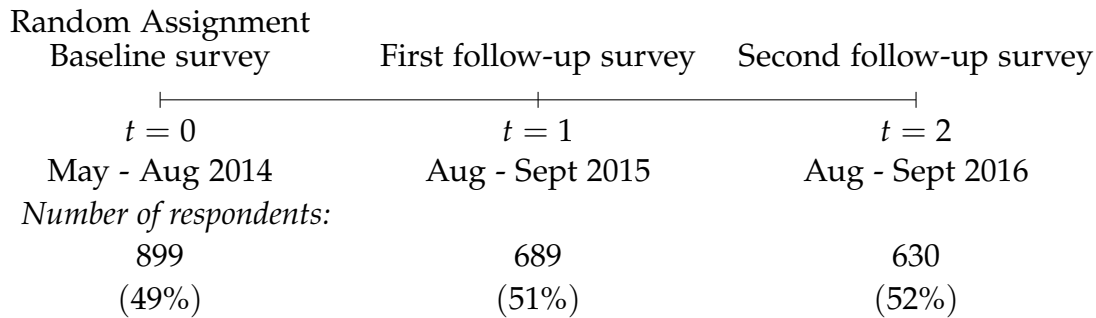
Note: The figure displays months, duration and activities related conducted at $t = 0, 1, 2$. Proportion of sample in treatment group are reported in parenthesis

over time, study participants were surveyed thrice between May 2014 and September 2016. A baseline survey was filled in at the time of application, while Kashf was carrying out loan appraisals. A follow-up survey was conducted between July - September 2015, with a second follow-up survey between July - September 2016. Both follow-up surveys were implemented by an independent survey firm. A total of 899 respondents were surveyed at baseline, out of which 440 were assigned to the treatment group. Of the 630 original respondents that could be successfully surveyed for the second follow-up, 328 belonged to the treatment sample. Sample attrition is discussed in detail in section 1.3.3.

1.3.2 Experiment Implementation

Kashf officers faced non-compliance from the treated individuals in 38 cases. 18 failed to complete paperwork required by Kashf operational policy and 10 refused the loan before disbursement. In these cases, the research team provided a random replacement from the control group. In 10 additional instances, the applicant had refused the loan but the research team was not informed until much later and a replacement was not provided. 11 individuals from the control group were provided the loan in violation of the research protocol. [13]

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[13]Average Intention to Treat results presented in section 3.3 are robust to the exclusion of these individuals. They are not significantly different from the randomly allocated sample on observables such as

We use a balanced panel of 630 individuals in our analysis. Table 1.1 presents the sample characteristics.[14] Observable characteristics are strongly balanced across the control and treatment groups. The F-test of joint significance of treatment and baseline variables produces a $p-value$ of 0.98.

The average respondent is 37 years of age, married and can read or write. Most live in homes owned by one of the household member, with an average household expenditure of PKR 14,000 per month, which is well below the monthly averages for the study districts. Two in every five respondents had a current business at baseline or said they had a business in the past that has now shut down.Nearly all women at baseline report they will be allowed by family members to work. In spite of this, indices for autonomy and female agency indicate the average respondent had low decision making power in the household. Respondents reported low access to formal and informal finance at the start of the study.

Table 1.1: *Balance of randomization*

	N	Mean	Median	S. Dev	Balance Test
	(1)	(2)	(3)	(4)	(5)
Family 1: Demographics					
Age (years)	630	37.20	36.00	9.90	0.83
Dummy: Respondent is currently married	630	0.90	1.00	0.30	0.62
Dummy: Respondent can read and write	630	0.50	1.00	0.50	0.97
Number of children (years < 17) in the household	630	2.80	3.00	2.00	0.96
Household dependency ratio	630	1.00	0.70	1.10	0.23
Family 2: Occupation and experience					
Dummy: Respondent has a business	630	0.20	0.00	0.40	0.27

education, marital status, occupation, household expenditure or dependency ratio).

[14]Table A1 in Appendix A, describes variable families and how each variable was constructed.

Dummy: Respondent has worked as a paid employee in the past	630	0.10	0.00	0.20	0.55
Dummy: Respondent has had a business in the past	630	0.20	0.00	0.40	0.45
Dummy: Household has existing business	630	0.21	0.00	0.41	0.80
Family 3: Household assets and expenditure					
Household expenditure in an average month (000's PKR)	599	13.80	13.5	4.20	0.69
Dummy: household home is owned by a household member	630	0.80	1.00	0.40	0.41
Index: Assets owned by the household	630	0.10	0.20	1.70	0.45
Family 4: Intra-household agency and autonomy					
Dummy: Respondent is confident she can support household for 4 weeks)	630	0.80	1.00	0.40	0.74
Index: Respondent 'empowerment' from taking decisions in the household herself	630	0.20	1.20	2.10	0.35
Dummy: Respondent is not allowed by the household to seek employment	630	0.01	0.00	0.12	0.83
Family 5: Access to formal or informal finance					
Dummy: Household has outstanding loans	630	0.00	0.00	0.20	0.57
Dummy: Household member(s) have participated in ROSCAs	630	0.20	0.00	0.40	0.75
Dummy: Household member(s) have a bank account	630	0.00	0.00	0.10	0.67
Share of sample in treatment group					0.52
$p-value$ of F test of joint significance of explanatory variables					0.98

1.3.3 Attrition

We use a balanced sample of 630 individuals for our analysis. We were unable to survey 210 of the initial 899 baseline respondents for the first followup survey, leading to an attrition rate of 30% from the original baseline sample. Almost two-third of the attrited sample belonged to the control sample. Local branch officers met with the treated clients once a month to collect loan installments, but there was no such contact with control sample and information for track control clients one year later was often incomplete. Independent enumerators hired for follow-up surveys also reported a high level of local migration. In fact, 80% of the attrited sample was reported to have migrated and could not be tracked despite assistance from staff at the local branch.

In Appendix table A2, we use all 899 respondents at baseline to see if final attrition is related to observable characteristics. We find that attrition is not random - the probability of being surveyed for the final survey two years after loan disbursement is positively correlated with household dependency ratio and negatively correlated with the respondent being married. As expected, the probability of being surveyed is also positively related to being in the treatment sample (column 1 and 2). However, probability of attrition is unrelated to treatment status once we control for observable characteristics and their interaction with treatment variables (column 3). In our analysis, we deal with attrition in two ways. First, our analysis in section 3.3 includes controls for all baseline characteristics

that are systematically related to attrition. Second, we test the robustness of our results to differential treatment by constructing the upper and lower bounds of treatment effects using the Lee (2009) procedure.

1.3.4   Estimating Average Effects

We use data collected over three rounds of surveys to study the effect of the loan product. Our primary variables of interest are business outcomes, that is, if the treatment increases the likelihood of a business being set up and if the new businesses set up by the treated sample are more likely to fail. Our secondary variables of interest are household variables (expenditure, assets); female autonomy and decision making in the household; and access to finance. We measure impact over both one and two years of having received the treatment product or the *short* and *long* term, respectively. We have a limited sample due to budgetary constraints and because the loan product was still in a pilot phase with the implementing organization. Therefore, for our main regressions, we discuss the minimum detectable effect (MDE) size for each of our outcome variables. This is the ex post effect size given our sample size that is detectable at 5 percent significance level with 80 percent power (Duflo et al., 2008; Haushofer and Shapiro, 2016).

Some variables may reflect the same channel of impact or proxy the same outcome. We deal with the possible multiple inference problems in two ways: First, for each estimation, we report (i) the p-value for the estimated treatment effect, and (ii) a sharpened q-value, calculated within each listed outcome family (see (Benjamini et al., 2006)). Second, for each separate outcome family, we construct an index (following the method of (Anderson, 2008)) using the inverse of the covariance matrix. We then use this index as a separate summary outcome, and repeat our estimations using the summary index as the dependent variable.

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We estimate the average Intent to Treat (ITT) parameters of equation (3.2):

$$y_{i1,2} = \beta_0 + \beta_1 \cdot \texttt{Treatment}_i + \beta_2 \cdot y_{i0} + \beta_3 \cdot z_{i0} + \phi_s + \varepsilon_i \tag{1.1}$$

Where $y_{i1,2}$ is value at the first follow-up ($t = 1$) and second followup ($t = 2$), y_{i0} is the baseline value. Then, for each outcome variable, we estimate an ANCOVA specification with Z_{i0} controls for baseline characteristics that predict attrition, ϕ_s denoting the common parameter for branch stratum s, with standard errors clustered at the individual level. β_1 provides the average ITT effect on outcome y. We were able to revisit RCT participants for a total of three times over three years, allowing us to measure the impact of treatment over both one and two year periods. We look at impact on outcomes over both one and two year horizons, referring to them as short term and long term effects, respectively.

1.4 Results

1.4.1 Enterprise Creation

One year later, a significant proportion of the treated group had used the loan for investment in their enterprise - 55% of the loan recipients reported using the funds to purchase business inventory, another 5% use it to purchase a fixed asset for the business or for carrying out repairs of the building in which the business was located. Income from the business was the single biggest source of loan repayment (approx 40%), with respondent wages or savings being the main source for another 45% of the recipient sample.[15]

At first follow-up, 81 treated respondents had set up a new business in the last year; 41 also closed down a new business before the year was over. 38 women from the control sample also set up a new business, but 15 closed down within the year. 50% of the women

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[15]Appendix Figure A1 provides a summary of the treatment loan utilization, as reported by respondents in the first followup survey. Figure A2 summarizes the largest sources of income that were used to repay the treatment product.The lender reported no defaults (non-repayment) in the study sample.

from the control sample who set up a new business reported having used family savings to do so, without taking out any loan. It is possible that applying for but not receiving the treatment product motivated the remaining half to apply for other loans; then the treatment effect investigated in equation (3.2) can be considered an underestimate of the effect of the loan application process.[16] Overall, the median business age at the time of the first follow-up was a year and 75% of the businesses were at least 6 months old. These businesses reported average start up costs of approximately PKR 20,000 (~$ 200) and average monthly profits of PKR 6,000 (~$60). Businesses that shut down reported monthly profits that were, on average, PKR 5000 ($50) lower that the profits reported by businesses that survived to the first follow-up survey. Given the average profits of new businesses on the whole, this difference is both economically and statistically significant (p = 0.000).

There is evidence of potential delayed impacts of the loan with treated women continuing to set up a business after the loan has been paid back. Over the two years between the baseline and second followup surveys, a total of 107 women from the treated and 51 women from the control sample reported having set up a new business. Most women in the study sample opened up a beauty parlour or a stitching and embroidery service at home, though profits do not vary by the type of businesses set up. Appendix Figure A3 summarizes the type of new enterprise.

Table 1.2 tests whether the microenterprise loan led to a respondents setting up a business that survived one and two years after the loan disbursement. Column (1) shows that treated women are 24.5 percentage points more likely to have a new enterprise that exists at the time of the first followup survey, than the control sample and that this increase is sustained over the longer term (column 3). However, we find many new businesses set up using the treatment product have a short life - businesses set up by loan recipients are 11 percentage points more likely to shut down in the time between

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[16]Indeed, the effect of taking out 'any' loan (KIKK and loans from other providers) is significant and larger than the average ITT effects discussed in Table 1.2.

Table 1.2: *Impact of treatment on business status*

| | Short term | | Long term | |
| | Set up new business | Shut down new business | Set up new business | Shut down new business |
	(1)	(2)	(3)	(4)
Treatment	0.245$^{\text{AAA}}$	0.107$^{\text{AA}}$	0.250$^{\text{AA}}$	0.103$^{\text{AA}}$
	(0.075)***	(0.061)*	(0.079)***	(0.061)*
MDE	0.088	0.064	0.097	0.070
Mean	0.063	0.025	0.098	0.039
N	630	630	630	630
R^2	0.014	0.005	0.012	0.004

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Set up new business' is a binary variable equal to 1 if the respondent set up a business since baseline. 'Shuts down new business' is a binary variable equal to 1 if the respondent shut down a new business that was set up after baseline (and before the first or second follow up survey, respectively). 'Short' and 'Long' show the effects by the time of the first and the second follow-up, respectively. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. 'Mean' reports the average value of the outcome variable for the control sample over time. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: $^{\text{AAA}}$Significance at 1% level, $^{\text{AA}}$Significance at 5% level, $^{\text{A}}$Significance at 10% level.

baseline and each follow-up (column 2 and 4).[17] Our findings suggest that the impact of finance on business *creation* can be significant when aspiring female entrepreneurs are targeted. This effect is relatively larger, in some cases more than 5 times the effect found in other impact evaluations that do not differentiate between loans for existing or new micro-enterprise. [18]

We find the profits are unable to explain why a large number of the new businesses have a short life. For instance, the *ITT* effect in the second year does not vary by the level of profits at the end of year one (p = 0.245). According to Banerjee et al. (2014), one possible reason for why many microenterprises shut down soon after they set up is that any financial gain of a new enterprise are often offset by the demands it places on the entrepreneurs time available for other work. For instance, women may find increased demands on their time as they balance the time spent on her household chores with that available for her business. Others posit that while finance can help set up a business, it is insufficient to sustain a business unless complemented with skills, training (Blattman et al., 2015) and cooperation from household members (de Mel et al., 2009, 2012). We explore possible of the constraints on enterprise growth and longevity next.

Heterogenous effects of the loan

We now disaggregate results by household and individual circumstances. We start with the existence of another business in the family. Loan funds being diverted to use in other businesses can reduce the effect of the loan on business *creation*. On the other hand, the experience of having a business in the household can also help the respondent in setting up and successfully operating a new enterprise. Table 1.3 shows the results of this

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[17]We also find that average monthly expenditure of businesses set up by treated respondents, at PKR 12,000 per month are 53% higher than the expenditure of businesses owned by control clients. However, there is no significant difference (PKR 500) in monthly profits reported by treated and control entrepreneurs at the time of the first followup, and no differences in either expenses nor profits at the time of the second followup.

[18]See for instance, Duflo et al. (2013), Angelucci et al. (2015), Attanasio et al. (2015), Crepon et al. (2015), Tarozzi et al. (2014) and Augsburg et al. (2015), amongst others.

analysis.

On average, a treated respondent is 28 percentage points more likely to have a new business one year later if others in the household do not have a business. Loan funds may have been 'captured' by other members of the household to finance pre-existing businesses than the new business that respondent wanted to set up. On the other hand, the experience of having a business in the household does not help business survival (Column 3). An appropriation of funds by other household members can also explain why we see no impact of the loan product on female agency and empowerment measures (discussed in section 1.4.2).

Table 1.3: *Heterogeneity in short term treatment effects by existing family business*

Existing family business?	YES	NO	YES	NO
	(1)	(2)	(3)	(4)
Set up new business	0.067	0.282^{AAA}		
	(0.204)	(0.085)***		
Shut down new business			0.147	0.100
			(0.114)	(0.072)
MDE	0.162	0.077	0.116	0.075
Mean	0.190	0.099	0.045	0.051
N	135	495	135	495
R^2	0.001	0.020	0.010	0.004
Parameter equality ($p-value$)		0.331		0.197

Note: Family business does not refer to respondent's business. All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Mean' reports the average value of the outcome variable for the control sample over time. Parameter equality $p-value$ are calculated from Seemingly Unrelated Regressions. 'Mean' reports the average value for the control sample over time. $***p < 0.01, **p < 0.05, *p < 0.1$.

In addition, we also find that the impact of the loan for business longevity varies by the degree of say the woman has in her household (Table 1.4). We find the loan substantially helps women with low levels of agency in the household to set up a business (Column 2). However, treated women with low decision making power in the household are significantly more likely than control woman to have set up a business that shuts

Table 1.4: *Heterogeneity in short term treatment effects by empowerment (index)*

Greater than median empowerment?	YES (1)	NO (2)	YES (3)	NO (4)
Set up new business	0.185[A]	0.307[A]		
	(0.093)**	(0.136)**		
Shut down new business			0.034	0.203[A]
			(0.078)	(0.094)**
MDE	0.107	0.156	0.080	0.106
Mean	0.109	0.158	0.065	0.020
N	419	211	419	211
R^2	0.008	0.026	0.000	0.023
Parameter equality ($p-value$)	0.023		0.044	

Note: Empowerment index created out of decisions in the household that the respondent can make herself, using Principal Component Analysis. All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Mean' reports the average value of the outcome variable for the control sample over time. Parameter equality $p-value$ are calculated from Seemingly Unrelated Regressions. 'Mean' reports the average value for the control sample over time. $***p < 0.01, **p < 0.05, *p < 0.1$.

down within the year (Column 4).[19]

We see similar effects of responsibilities at home (Table 1.5). We compare the impact of the loan for women with dependent (aged 16 years or younger) children, with those with older, or no children and find that the loan substantially improves the likelihood of treated women without young children to set up a business (Column 2), they are also more likely than business-women in the control sample to set up a new business that shuts down (Column 4).[20]

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[19]In a similar analysis conducted for women who had past experience of running a business at baseline, we find that experienced women in the treated sample are 37 percentage points more likely than experienced women in the control sample to set up a new business. However, experience did not help these women in sustaining their business - businesses of experienced women in the treated sample were still 20 percentage points more likely to shut down.

[20]We see similar results if we check for variation by the respondent having young children (age 5 or younger). See Table A3 in the Appendix.

Table 1.5: *Heterogeneity in short term treatment effects by dependent children*

Has dependent children?	YES (1)	NO (2)	YES (3)	NO (4)
Set up new business	0.196^{AA}	0.437^{AAA}		
	(0.093)**	(0.134)***		
Shut down new business			0.087	0.204
			(0.079)	(0.109)*
MDE	0.096	0.224	0.070	0.158
Mean	0.133	0.087	0.055	0.022
N	532	98	532	98
R^2	0.007	0.092	0.003	0.042
Parameter equality ($p-value$)	0.012		0.032	

Note: 'Dependent' refers to children 16 years and younger. All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Mean' reports the average value for the control sample in each category over time. Parameter equality $p-value$ are calculated from Seemingly Unrelated Regressions. 'Mean' reports the average value for the control sample over time. $***p < 0.01, **p < 0.05, *p < 0.1$. Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

1.4.2 Short term effects on individual and household outcomes

We next look at the average Intention to Treat impact of the treatment loan on household and individual outcomes one year after the disbursement of the loan. We discuss each outcome family separately.[21]

Household Expenditure and Assets

Table 1.6 reports the ITT effects of the treatment on household assets, home ownership and average monthly expenditure. Household expenditure can increase by the amount of the loan installment that is paid every month. Expenditure can also increase if the loan, invested in a business, leads to an increase in household income. Conversely, expenditure can decrease if the loan repayment imposes a stricter discipline on household finances

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[21]We discuss ITT effects here. LATE effects from having a business at followup are shown in Tables A4 - A6 in the Appendix. In general, we find no effects on any outcome from have a new, 'successful' business.

Banerjee et al. (2015) or if the loan leads to greater autonomy for women who tend to impose greater discipline on the household's spending on temptation items (Angelucci et al., 2015). However, any effect on the expenditures may be transitory and not necessarily captured in annual surveys. Changes in assets and home ownership are likely to be durable and easier to capture.

Table 1.6: *Short term impact: Households assets and expenditure*

	Monthly household expenditure (PKR)	Home owner	Asset index
	(1)	(2)	(3)
Treatment	-88.957	0.029	0.331
	(1815.453)	(0.075)	(0.189)*
Monthly household expenditure$_{t=0}$	0.228^{AAA}		
	(0.084)***		
Home owner$_{t=0}$		0.480^{AAA}	
		(0.047)***	
Asset index$_{t=0}$			0.154^{AAA}
			(0.042)***
MDE	1516.875	0.097	0.360
Mean	15905.273	0.755	0.075
N	574	630	630
R^2	0.020	0.194	0.029

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Monthly household expenditure' is calculated by summing up the average monthly expenditure on different items, reported in PKR. 'Home owner' is a binary variable equal to 1 if someone in the household owns the household home. 'Asset index' is an index created from the number of assets owned by the household using Principal Component Analysis. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $***p < 0.01, **p < 0.05, *p < 0.1$.
Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Indeed, we see no effects of the treatment product on the average level of total household expenditure (column 1) and home ownership (column 2) after a year. [22] The

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[22]Table A7 in the appendix A.1 shows the one year impact of treatment on individual expenditure items.

treatment results in a small but significant increase in household asset index of 0.2σ for households in the treated sample (column 3).[23]

Credit and financial access

Next, we look at the impact on access to formal or informal finance. The treatment product does not significantly increase the proportion of households with a formal bank account (Table 1.7, column 1). This result is not surprising given the low access to formal finance at baseline, which is not uncommon for borrowers in the microfinance sector.[24].

We find that the likelihood of household members taking out another loan in the same year is 13.5 percentage points higher in the treated sample (Column 2). For many new borrowers in a microfinance market, loans such as KIKK act as 'entry' loan to a line of credit that can be continuously drawn on. Most microfinance lenders allow repeat borrowers to borrow successfully larger amounts. Even when borrowing from a competing lender, a good repayment history reduces the riskiness of the borrower for the lender. Therefore, borrowing can increase in the long run. Treatment loan can either 'crowd out' other new loans in the short run if it can satisfy the demand for finance or increase demand for other loans to relax financial constraints. The latter is true for our sample - the treatment loan 'crowds in' additional loans. [25]

The only effect we do see after a year is a statistically and small increase in the average monthly expenditure on recreation.

[23]The survey asked for the total income level of the household but most respondents chose not to answer at baseline. We only have data on the number of assets owned by the household and not the value of each assets owned, so we cannot comment on the nature of this change. For instance, we may see an increase in the asset index if treated households purchased many assets of small value. On the other hand, instances where the household replaced many assets of low value with a very valuable asset will be recorded as a decrease in the household index.

[24]In fact, the fact that the treatment loan opens up a line of credit for the treated sample can explain why see a sustained increase in the number of new businesses in the treated sample in Table 1.2

[25]Note that very few respondents reported having to take out other loans to service the treatment loan (see Figure A2 in Appendix A.2), leading credence to the explanation that in not fully relaxing household credit constraints, the treatment product 'crowds in' other loans.

Table 1.7: *Short term impact: Access to finance*

	Bank account	Took loan(s) last year
	(1)	(2)
Treatment	0.031	0.135^{AAA}
	(0.039)	(0.034)***
Bank account$_{t=0}$	0.079	
	(0.139)	
Took loan(s) last year$_{t=0}$		0.131
		(0.101)
MDE	0.112	0.105
Mean	0.273	0.137
N	630	630
R^2	0.002	0.029

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Bank account' is a binary variable that is 1 if someone in the household currently has a bank account. 'Took loan(s) last year' is a binary variable equal to 1 if someone in the household took out a loan (other than the treatment loan) in the last year. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Female Agency and Autonomy

Table 1.8 looks at the average ITT effect on measures of female autonomy and decision making power in the household. The loan can be expected to affect female autonomy in different ways. Literature indicates that the very act of receiving funds in her name would empower a woman and give her a greater say in how that money is to be used (Kabeer, 2001). In addition, the woman can contribute to the household income if she uses the loan productively, improving her involvement in household decision making (Grasmuck and Espinal, 2000). Conversely, an increase in the female controlled share of household resources can threaten male members of the family, leading to domestic violence and a

decrease female empowerment levels (Angelucci, 2008; Maldonado, 2005). Other studies argue that external or internal pressures on the female, coupled with greater fungibility of cash, may mean these loans are easily captured by household members (Fafchamps et al., 2009; Jakiela and Ozier, 2012). Empowerment levels may even decrease if the capture of funds was not expected by the women. However, it is perhaps overly simplistic to assume many women would be caught unawares of household dynamics and that any appropriation of loans funds would be very unexpected.

It is also possible for the loan product to have no impact on female autonomy and decision making power. A year may not be a sufficiently long period of time for household norms and the level of autonomy afforded to a female in the household to change. Weber and Ahmad (2014) find that empowerment levels change slowly, increasing for women who are in advanced loan cycles but not for first time borrowers. Existing microfinance impact evaluations discussed in section 1.1, find little effect on female empowerment, measured usually in the form of their role in household decision making. Studies have shown that self help groups (Campbell, 2012), information on family planning and vocational training (Bandiera et al., 2014) may have greater success in improving empowerment than access to finance. Consistent with this strand of literature, we find no impact of the treatment loan on various measures of female agency and autonomy within the household.[26]

Other than the possible reasons discussed in literature, consider also the fact that treated respondents in our sample who belong to households with pre-existing businesses are less likely to set up a business (Table 1.3). In fact, in regression not shown in Table 1.8, we find that the presence of another business in the household significantly decreases the index value by 0.3σ. The lack of a treatment effect on empowerment is not surprising when we consider the possibility that their loan funds may have been appropriated for use in other household businesses.

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[26]We allow for the fact that our estimation fails to detect an effect due to small sample size. Note, for instance, the MDE for empowerment index is not very different from the estimated effect.

Table 1.8: *Short term impact: Agency and autonomy in decision making*

	Confident	Empowerment index	Agency index	Allowed to work
	(1)	(2)	(3)	(4)
Treatment	-0.022	0.436	0.108	-0.089
	(0.103)	(0.462)	(0.211)	(0.073)
Confidence$_{t=0}$	-0.005			
	(0.054)			
Empowerment index$_{t=0}$		0.053		
		(0.037)		
Agency index$_{t=0}$			0.066	
			(0.043)	
Allowed to work$_{t=0}$				0.007
				(0.105)
MDE	0.112	0.472	0.212	0.081
Mean	0.638	0.140	0.032	0.904
N	627	630	627	630.000
R^2	0.000	0.005	0.004	0.002

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Confident' is a binary variable equal to 1 if the respondent believes she can support her family on her own for 4 weeks. 'Empowerment index' is an index created using Principal Component Analysis from variables that measure if the respondent can make household decisions (clothing, footwear, medical, recreation, social visits, joining credit groups, purchases for self, purchases for others, marriage, investment) on her own. 'Agency index' is an inverse variance-covariance index (Anderson, 2008) created out of the Confident and Empowerment index variables. 'Allowed to work' is a binary variable that is equal to 1 when the respondent feels her household members allow her to work or will allow her to seek work. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: [AAA]Significance at 1% level, [AA]Significance at 5% level, [A]Significance at 10% level.

Finally, we check whether opening up a business has an impact on individual or household welfare. Tables A4 - A6 in the appendix show the Local Average Treatment Effects (LATE) of opening up a new business on the measures of household expenditure

and assets; access to formal and informal finance; and female decision making power in the household. We find no change in any of our main variables of interest.

1.4.3 Long term effects on other outcomes

We also test for the long term (2 year) impact of the treatment loan on the outcomes discussed in section 1.4.2 (see Tables A8, A9 and A10 in Appendix A.1). In general, we find no long term impacts on any outcome. For instance, households with a higher asset base are likely to increase their asset base further, those with higher expenditure at baseline are more likely to have increased expenditure over two years, but none of this increase is due to receiving the loan product in the first year. Similarly, those with prior loans are likely to take further loans, but the 'crowding in' effect of the treatment product itself dissipates over the longer run. These results are not altogether surprising given the short term and small size of the treatment loan.

We find that women who are more empowered at baseline are likely to become more empowered over longer periods of time. These results indicate that household and individual preferences are likely to be slow to change. Access to short duration loans, such as the treatment product, are unlikely to immediately bring about a change in agency and empowerment levels. Note, MDE size for the empowerment index indicates we may be under-powered to detect a significant treatment effect.

1.4.4 Quantile regression effects

Next, we move from mean effects to testing how the treatment effects distribution of outcomes. While a small sample size may mean that many of these effects will be imprecisely estimated, quantile regressions can provide useful insights into whether the effects of the treatment are consistently spread over baseline distribution of the outcome variables or if most of the change occurs in the tails or the middle of the

distribution. Figure 1.2 shows the short term treatment effects for each decile of the continuous outcome variables: asset, empowerment and agency indices and monthly average household expenditure. Increases in expenditure and assets are not statistically significant at any decile. The agency index, which summarizes both the empowerment index and a measure of respondent's confidence in her ability to financially support the household, increases for women in the 95th percentile as a result of the treatment product. This result implies that the treatment improved agency for at least some women with high agency in the short run, though we cannot infer how many individuals. Figures A4 and A5 in the Appendix plot the long run quantile effects. The treatment product adversely affected asset ownership of households with low baseline assets index values, possibly due to the burden of debt servicing.

1.4.5   Impact by outcome family

As mentioned in section 1.3.4, we deal with multiple inference problems by (i) estimating sharpened $q-values$ using the False Discovery Rate (Benjamini et al., 2006) calculated within each outcome family and reporting statistical significance in the results presented in each regression table. In general, adjusting $p-values$ with this procedure did not change the significance of results discussed. (ii) For each outcome family we construct and index using the inverse of variance covariance matrix (Anderson, 2008). We then repeat our estimation using this family summary index as the outcome variable.

For ease, we organised regression results for outcomes by 'family' in section 1.4.2. We present results table A11 in Appendix A.1. As expected for index outcome results, we find significant effect of treatment only for indices that measure business status and access to finance.

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Figure 1.2: *Quantile Treatment Effects: Short term effects for outcome variables*
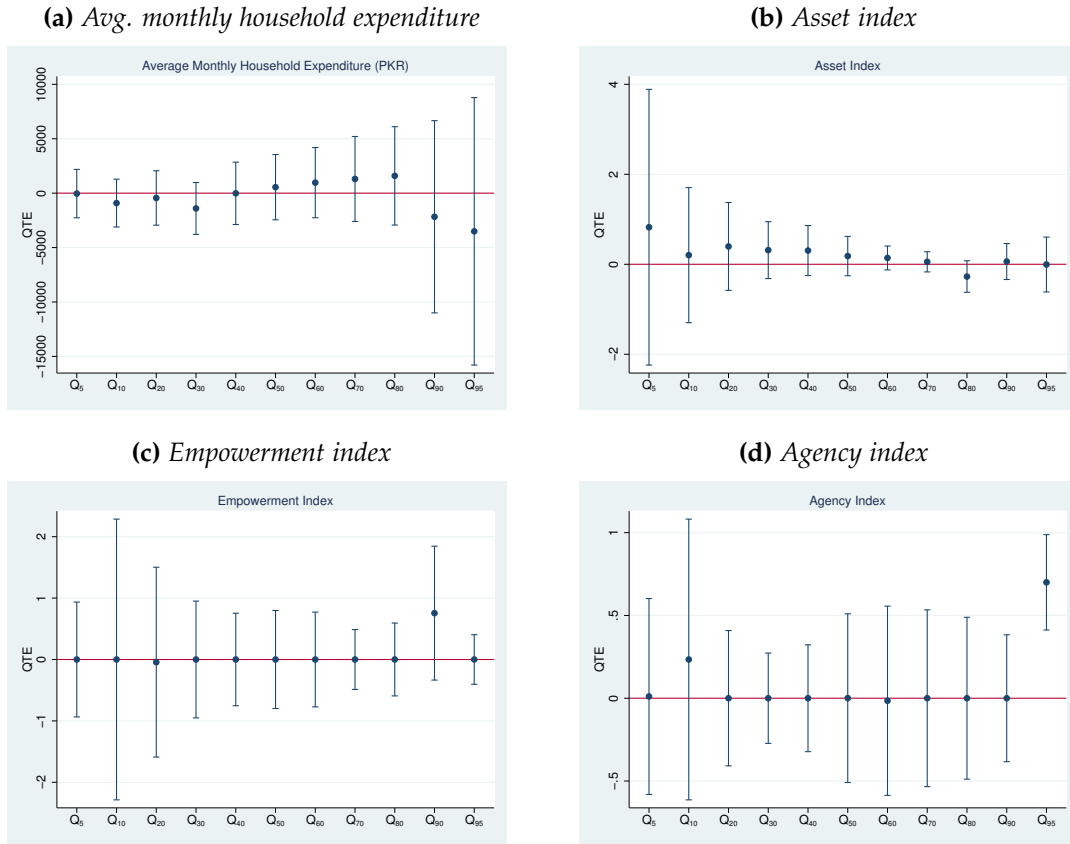
(a) *Avg. monthly household expenditure*

Average Monthly Household Expenditure (PKR)

(b) *Asset index*

Asset Index

(c) *Empowerment index*

Empowerment Index

(d) *Agency index*

Agency Index

Note: *x-axis* shows quantile in each graph, 'dots' represent the Treatment Effects at each decile of the baseline distribution of the same outcome variable. Vertical lines show the 95% confidence intervals.

1.4.6 Robustness to attrition

We check for the robustness of our results to attrition in two ways: (i) We control for all variables that we are significantly related to attrition in all estimations; (ii) We use the bounding procedure by Lee (2009) to find out the lower and upper limits of treatment effects. We find results to be robust to attrition.[27]

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[27]Results, and the assumptions underlying the estimations, are available in tables A12 and A13 of Appendix A.1.

1.5 Conclusions

We use data from a randomised control trial with female borrowers of a micro-loan intended to encourage women to set up their own business. Our results provide us with four key insights: first, borrowers in this sample used their loans mostly for investment in new or existing enterprise. This finding contradicts anecdotal evidence in this sector that says loan funds are likely to be largely used for consumption purposes.

Second, we find a relatively large but transitory effect of the loan on business creation. Third, household dynamics are instrumental in driving this effect - the effect of the loan is large and positive for respondents from households that do not have an existing family business where the loan funds can be diverted and also for women with high levels of decision-making power in the household.

Fourth, the loan product did not have transformative effects on other individual and household level outcomes. We found short term increase in assets and access to finance but no significant average effects of the treatment product after a year. Further, quantile regression analysis shows potentially negative effects of debt servicing on assets in the left tail over two years. That is, some individuals with the worst baseline outcomes were made worse off by the treatment product over time.

The results for individual and household level outcomes are not very different from existing evidence on microfinance. The effect on new businesses, on the other hand, is larger than what is typically recorded in literature. In fact, most studies find comparable effects only for existing businesses and very limited effect for new businesses set up by women. We believe this short run impact may have been the product of the way the loan was marketed - as a start up loan for female-run businesses - and a selected sample as a result of requiring applicants to submit business plans at the time of application that may have nudged respondents to invest loan funds in business. The lender's implicit penalty on not lending in the future to borrowers who misuse funds may have also played a role in encouraging using funds as intended.

The effect of the loan on setting up a business that survives for some time was largely transitory, significant only in the first year. As argued by Banerjee et al. (2014), this may have been because of unexpected opportunity costs of the woman's time in business. At any rate, the results emphasize that small loans alone are insufficient to promote a sustained increase in female-operated businesses.

Our results come with several caveats: first, our sample had a 30% attrition rate that was significantly higher in the control sample. We show our results are robust to the inclusion of baseline characteristics that can predict attrition. We also show the robustness of our results by constructing bounds of treatment effects using Lee (2009). Second, despite that fact that we randomise loan provision at the individual level, our sample is small compared to other recent impact evaluations. We may be underpowered to detect certain effects. Third, though our sample is representative of a typical sample of female borrowers in Pakistan, we cannot say if the different contexts and social norms surrounding female enterprise will yield the same results.

From a policy perspective, an existing family business may make the respondent a better prospective borrower for the lender, but it is highly unlikely that the funds be used to set up a business owned by the woman as intended. Far from recommending that women not be lent funds if their household members are entrepreneurs, our results imply that micro-lending schemes must take household dynamics into account when trying to encourage female enterprise. Our findings complement those of Bernhardt et al. (2017) who find that that the reason for low average returns to capital earned by female entrepreneurs in India, Ghana and Sri Lanka, are not due to a gap in business aptitude but rather the existence of husband's enterprise where the capital is invested instead of her enterprise. These results, taken with results from recent studies documenting the effectiveness of peer support (Field et al., 2016), personal initiative training (Campos et al., 2017) and possibility of improving aspirations of female entrepreneurs (Lybbert and Wydick, 2016), imply that there is scope to encourage both set up and growth of

female enterprise if additional measures are taken with provision of finance, such as hard penalties on loan misuse or a softer 'nudge' requiring applicants to submit a plan for their proposed business.

Chapter 2

Altruism and opportunism in microfinance households[1]

Household decisions are the result of individual members' preferences and social norms that regulate appropriate behaviour. When there is disagreement or information asymmetry among household members, household decision-making is less efficient than that resulting from cooperative decision processes. Indeed, a large body of empirical evidence documents Pareto inefficiencies in household allocations, especially in the presence of imperfect information between members (Goldstein and Udry, 1999; Udry, 1996; Hoel et al., 2017). Acting strategically is one such product of information asymmetry that can result in Pareto inefficient outcomes. For instance, studies have shown household members to be non-cooperative and 'opportunistic' when their actions cannot be perfectly observed (Castilla and Walker, 2013; Kebede et al., 2014; Hoel, 2015). Conversely, acting generously even when actions are not revealed to others can be considered as an act of *pure* altruism.

Household dynamics in the presence of asymmetric information can have significant consequences for welfare of the less powerful members of the family. For instance, if

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[1]Co-authored with Mahreen Mahmud, Giovanna d'Adda and Azam Chaudhry

members with greater say in household decision making act altruistically towards others, they can help achieve a more equitable distribution of resources in the household. There is a growing body of literature that uses artefactual and field experiments to study efficiency of intra-household decision making. Results on information asymmetries demonstrate that spouses frequently refuse to share resources with each other, leading to inefficient decision making in the household, and that such behavior is correlated with individual control over household spending (Ashraf, 2009; Castilla, 2015; Verschoor et al., 2017) and feeling of ownership of resources (Dasgupta and Mani, 2015).

Evidence from interventions designed to improve individual and household welfare shows that household norms and dynamics can limit the intended benefits of the interventions. For instance, literature on microfinance suggests capture of resources by the more powerful members of the household can responsible for the limited impact of credit on borrower welfare (de Mel et al., 2009, 2012). It is entirely conceivable that women, with generally low levels of bargaining power in the household, may respond to potential capture by strategically hiding resources when they can credibly do so. This may mean that they don't use loans to make productive investments when returns can be easily captured by other members of the family.

This study investigates what drives sharing decisions when there is imperfect information among household members. First, we investigate how individual preferences and household dynamics affects sharing of resources within a laboratory setting. We conduct artefactual experiments with men and women from the same households in Punjab, Pakistan. We collect measures of opportunism, entitlement over one's earned income, family members' respect for others' resources, and intra-household measures of female agency. We combine these data from artefactual experiments with survey questions on women's decision making autonomy within the household, and examine how strategy is influenced by experimental and survey measures of empowerment.

Second, we ask whether women's experiences can shape these preferences and norms.

We exploit the fact that our sample is drawn from women who were part of a randomised control trial experiment where randomly selected women received micro-credit and training for setting up a new business. We explore whether being treated has an effect on experimental and survey measures of empowerment. If strategic decisions are driven by a *pent up* demand for agency, then we will expect intervention intended to empower recipients - in particular the access to financial resources, the acquisition of business training and the exposure to a network of other women with the same aspirations and facing the same challenges - to have also impacted their position in the household and the awareness of their rights over their property.

We find that women, with generally low levels of decision making power within the household, are more likely to act opportunistically under asymmetric information. Opportunism in the laboratory among women correlates with their feeling of entitlement over earned resources, their family members' respect for their earned property and their autonomy within the household. Further, women randomly selected to receive a microcredit product for running their business display higher levels of decision autonomy one year later. Therefore, our results suggest that there is potential to alter preferences and norms that determine behavior under asymmetric information; and that a small loan and standard business training has the potential to act as a catalyst for this change.

These findings are reminiscent of recent work by Barr et al. (2017) who find the degree of altruism and cooperativeness among spouses varies by expectations regarding cooperation from the spouse. However, they introduce variation in these expectations by working with a sample of polygynous and monogamous households. We contribute to this literature by investigating the correlation between altruism and novel measures of experiences and empowerment within the household, as well as by showing how potentially empowering experiences, in terms of access to finance and training, affect altruistic behavior in the household.

We also contribute to a small literature that combines laboratory and field experiments

to show causal impact on preferences and norms that cannot be easily measured outside of the laboratory.[2] To the best of our knowledge, ours is the first study combining an RCT targeted at encouraging female microenterprise start-ups and artefactual experiments to examine causal impact of finance and training on women's tendency to not share their income with their spouses.

Finally, our study adds to a large and growing literature, showing the limited impact of microfinance and business training on female business creation and growth (Ginè and Mansuri, 2017; McKenzie and Woodruff, 2013; Berge et al., 2014). We focus on female empowerment, measured through both experimental and survey measures. To the best of our knowledge, only one other study uses a similar methodological approach, finding that training targeted at gender issues improves female bargaining power (Bulte et al., 2016). Here we focus on another dimension of female role in the household, sharing of resources, which is directly related to intra-household decision efficiency.

In the remainder of the paper, we sketch a conceptual framework to think of opportunistic behaviour within the household (Section 2.1). We then describe the setting, RCT, and the design and implementation of the laboratory experiment (Section 2.2). We provide descriptive statistics of the sample and discuss the results in Section 2.3 and then conclude (Section 2.4).

2.1   Conceptual framework

The logic behind the design of the experiment design is based on the standard utility and collective bargaining models that predict efficient household allocation when individual welfare is given weight in household allocation and members are fully informed of each others' preferences and resources (Chiappori, 1997; Lundberg and Pollak, 1996, 2001).

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[2]See, for instance, (Jakiela and Ozier, 2012; Burns et al., 2015; Fisman et al., 2015; Bulte et al., 2016; Garikipati, 2013; Abbink et al., 2016; Hoel et al., 2017). In particular, Jakiela (2015) studies how respect for earned property, measured through behavioural experiments similar to the ones we conduct in our study, is influenced by human capital.

Household allocation is likely to be less than Pareto-efficient in societies where some members of the household are subordinate to others, as is the case for many women in Pakistan.[3] Preferences of the subordinate member may not be taken into account when allocating resources of the household. The lack of a say in how resources are used can explain why a woman may choose to conceal resources from other members of the household (Ashraf, 2009) or act out against this control by keeping more of her resources for her own use when it is possible to do so, possibly leading to inefficient consumption outcomes.[4]

Opportunistic behavior is more likely when actions cannot be observed (Castilla, 2015). Among the more powerful members of the family, altruism towards others can be a way of reducing inequality in the household. For those with less decision making power, opportunistic behavior may be a reflection of a pent up demand for agency. It also possible for women with very low decision-making power within the household to have *repressed* their demand for a say over how their resources are used. They may not react to the opportunity to act strategically at all.[5] The success of an intervention designed to encourage female agency will depend on which of the two effects prevails.

We investigate this issue by comparing decisions in a lab setting when decisions can be kept hidden and when they are revealed to a household member. We measure opportunism towards both family members and strangers and expect allocation decision in household pairing to be motivated by household dynamics, based on their experiences in the household. There are no such ex-ante expectations of partner preferences and behavior to affect decisions in stranger pairings. We use data from the experiments and survey questions to generate indicators of female and household preferences that we

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[3]Recent empirical work on Pakistan reveals female involvement in household decision making power to be considerably lower than male involvement (Afzal et al., 2018).

[4]The consumption of household public good is unambiguously lower when some individual resource is not shared or is concealed (Castilla, 2014). However, funds kept hidden from others may mean investment in an income generating activity is foregone and that future household income is lower (Kazianga and Wahhaj, 2015).

[5]For example, repressed individuals may not conceive demonstrating ownership over their own resources, leading to a lack of aspirations (Alan and Ertac, 2018).

expect to be correlated with opportunism. These include awareness of one's right over one's own earned resources and decision autonomy within the household, separate from the social environment in which these decisions are taken. We discuss each of these in turn next.

First, we test if participants exhibit greater entitlement over their earned resources, regardless of their agency within the household. Fahr and Irlenbusch (2000) refer to this as the 'earned property rights' effect. Although women may feel entitled to have greater control over their earned resources, they may nevertheless not be granted control by dominant household members. In such situations, women would also be more likely to exert control by keeping more of the experiment earnings that they feel entitled to for their own use.

Second, we expect that vulnerability to capture will result in higher rates of opportunism when allocation shares can be kept hidden. We assume that individuals who face capture in intra-household decisions outside a laboratory setting will expect to face it in the context of the experiment as well, and thus construct a variable to proxy an individual's respect for his or her partner's earned property. Namely, we compute the difference between the share partner allocates to himself from his partner's earnings versus from his own earning from the experiment. We interpret allocating more to self when taking than giving as a sign of low respect for the partner's earned property and expect this to be positively correlated with opportunistic behavior by an individual.

Third, we test if opportunism under asymmetric information is correlated with an individual's agency within the household. Over different rounds of the experiment, we vary if information is fully revealed to partners. If opportunism is a reflection of a pent-up demand for agency, then a woman with greater say in household decisions will be more likely to keep more for herself when allocation decisions are kept private. If the demand for agency is *repressed*, then we expect our measure of opportunism to be unaffected by the level of decision making power the woman has in her household.

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All the factors discussed above, which we expect to be correlated with opportunistic behavior under asymmetric information, are likely to be influenced by ways of increasing financial access. Having access to resources and information on successful business practices, and to a network of women with similar goals and problems, may increase women's awareness of their rights over their earned property, their bargaining power within the household and thus their decision autonomy. This may reduce the need to take advantage of asymmetric information by concealing personal resources from household members. In our analysis, we will thus also examine the effect of treatment on the different measures of empowerment identified here as correlated with opportunistic behaviour.

This section has sketched a framework to structure our thoughts on altruism under asymmetric information and on its potential determinants. Next, we describe in more detail the experimental protocol that we used to elicit them.

2.2   Experiment setting and design

2.2.1   Setting and implementation

The research was conducted in Pakistan - an ideal setting to study how gender-specific norms and preferences affect intra-household decisions. Abuse and violence against women within the domain of the household is not unheard of due to cultural norms and lack of legal oversight (Bari and Pal, 2000; Rabbani et al., 2008; Ali and Gavino, 2008). Norms of behaviour, enforced by peer pressure, fear of condemnation or through internalized shame over a broken social rule, are hypothesised to limit the discretion females have, for instance, over joining the labor force or investing resources in a business activity (Ginè and Mansuri, 2017).

The experiment sample was drawn from a pool of 689 women participating in a RCT, conducted in peri-urban areas of Punjab, Pakistan, and involved providing loans and

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training to women for setting up a new business.[6] Treated women were provided a PKR 10,000 and 30,000 ($100 - $300) annual loan, with a three hour long training consisting of planning, finance and marketing in the month of loan disbursement. Both treatment and control sample was surveyed approximately one-year after receiving the loan and training and randomly selected respondents were invited to participate in artefactual experiments.

The sample for our experiment consisted of 267 couples randomly selected from the RCT sample. Married respondents were invited with their husbands. In case the respondent was unmarried or the husband did not live with the respondent (e.g. separated or migrant worker) we invited the main male decision maker in the household. 70.5% of the participants attended the sessions with their husband and 29.5% of the respondents attended with other male members of the household.[7]

Invited respondents were guaranteed PKR 1,000 ($10) if they participated in all activities in the session. In addition, each participant could earn up to PKR 1,000 from his or her decisions in experiment activities. In keeping with the local norms as well as to avoid couples influencing each other, male and female sessions were held in separate rooms. No interaction was allowed between participants until a session was completed. Participants were paid privately and individually at the end of each session. Experiments were implemented using pen, paper and tokens representing currency notes.

The experimental data is complemented by survey data, collected from the female respondent at the time of invitation to the experiment sessions. Measures of female decision making power, mentioned in section 2.1, were collected in this survey.

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[6]The RCT was conducted in peri-urban areas of three districts of Punjab, Pakistan - Bahawalpur, Gujrat and Sialkot. Bahawalpur, located in the south of Punjab, is ranked 31st out of 36 districts in Punjab in terms of educational attainment (Memon et al., 2014). Gujrat and Sialkot, are ranked 19th and 13th, respectively (Memon et al., 2014). Average monthly household income in Bahawalpur, Gujrat and Sialkot are PKR 30,294 ($300), PKR 51,854 ($520) and PKR 29,110 ($290), respectively. Inflation adjusted estimates from Pakistan Social and Living Standards Measurement Survey (PSLM) 2010-11.

[7]This individual was identified during the survey and invited at the same time as the female respondent.

2.2.2 Experimental design

Participants played a series of tasks: a public and a private round of the dictator game, dictator and taking (reverse-dictator) games with earned endowments, and risk preferences elicitation tasks. The order of tasks and rounds within each task was randomised. At the end of each session, a random draw determined which task would yield subjects' earnings.[8]

We used standard protocols, adapted to the local context, for all activities. Half of the female participants in each session were randomly selected to be paired with the male household member; the remainder were paired with a male stranger. The difference of decisions made in household member and stranger pairings is a measure of whether, on average, gender differences in behaviour are driven by intra-household norms or by more general gender norms.

In the dictator activity, we provided each individual in a pair with an endowment of PKR 1000 and asked him or her to divide the money between him/herself and the partner. Either the subject or the partner's decision could be randomly selected to be implemented. Participants made this decision twice (in random order): in one case, subjects were informed before making the decision that their allocation would be revealed to their partner at the end of the session (public round); in the other case, subjects knew that their partner would not find out the exact share of the endowment allocated to each other (private round). To keep allocation shares concealed in the private round, we introduced uncertainty that would allow each participant to *plausibly deny* the exact amount allocated to the partner (as in Hoel (2015)) if confronted by their partner after the session.[9]

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[8]Experiment timeline and full experiment script are available in B.2 and B.3. Note, we also conducted a norms elicitation exercise (similar to Krupka and Weber (2013) in the same session, in order to elicit opinions on women making decisions about their business without consulting their husbands. We do not use this experiment in the analysis presented in this study.

[9]Participants were informed that depending on the outcome of a coin toss, the experimenter would either add or subtract an unspecified amount to the allocation they made to their partner.

In taking and dictator activities with earned endowments, each individual conducted a simple sorting activity according to earn up to PKR 1000. The activity involved sorting black chickpeas from white chickpeas for two minutes. In the taking game, participants decided how to divide their partners' earnings between themselves and the partners, while in the dictator game the decision concerned how much to give to the partners of their own earned endowments (List, 2007).[10]

Finally, we implement a standard standard Binswanger (1980) lottery game design (based on options given in Barr and Genicot (2008) and Cameron and Shah (2015)) to obtain measures of respondent risk aversion. See Table B1 in the Appendix for a list of the options provided. Options increased in expected value and deviation between possible earnings.[11] We control for respondent risk preferences in all analysis presented in section 2.3.

In the next section, we provide summary statistics for the survey and experimental variables described here, before discussing the main results.

2.2.3 Variable construction

We borrow from literature and consider individuals to be truly altruistic when they are generous towards others even if their actions will not be perfectly observed by others. We believe self-regarding or opportunistic behavior within the experiment to be motivated primarily by the process through which resources have been obtained and expectation that they will be captured by household members. We construct three indicators from

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[10]Pre-testing of this activity provided us with the upper bound for chickpeas sorted. The endowment assigned to this upper bound was 1000 PKR, to ensure comparability with the tasks with unearned endowments. Then, we assigned a payoff to each possible range of outcomes: 0 PKR for output below 20 black chikpeas, 100 PKR for output between 20 and 35, 200 PKR for output between 35 and 50, and so on. The strategy method was used in both the taking and dictator rounds here: out of every possible sum earned through the sorting task - 0, 100, 200, up to 1000 PKR, subjects were asked how much they would take from, or give to, the partner in the taking and dictator game respectively.

[11]Given the literacy level and the cultural norms, the Binswanger (1980) design involves event probabilities that can be easily understood. Further, keeping religious norms in mind, we were able to avoid references to chance, which helped in removing association with gambling.

behavior in the experimental tasks.

- *Opportunistic*: a variable equal to one if a subject keeps more for himself or herself in the private dictator game than in the public dictator game, displaying lower altruism when information is asymmetric.

- *Entitled*: we define feeling entitled to one's earned income if a subject keeps more for himself or herself in the public dictator game with earned endowment than in the public dictator with windfall.[12]

- *Low respect*: we define showing low respect for the partner's earnings if a subject takes more for himself or herself from others' earnings than of own earning. That is, if the difference in allocation to self in the public taking game and the public dictator with earned endowment is positive.

- We measure female *agency* by combining two pieces of information. (i) Survey questions on the autonomy granted to a woman when making a series of decisions, ranging from choices over small purchases, social visits or healthcare, to the decision to make an investment or get a loan. We count the number of decisions, which the woman reports taking on her own, with no need for consultation with or permission from other household members. (ii) We exploit questions on whether women are seeking employment outside the home. We generate an indicator variable for women who claim they are not seeking employment outside the home because they are not allowed to by the household head. We construct an index from (i) and (ii) using Principal Component Analysis, and test its correlation with opportunism.[13]

- We obtain measures of respondent risk preferences from the choices made in Binswanger (1980). As described in section 2.1, higher option values represent lower

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[12]Dasgupta and Mani (2015) employ a similar variable definition and construction of entitlement for an investigation of how it relates to consumption decisions.

[13]Appendix B.4 shows the full list of empowerment questions asked in the survey and describes how each proxy of empowerment used in the analysis is constructed.

levels of risk aversion.

2.3 Results

2.3.1 Descriptive statistics

Table 2.1 shows descriptive statistics for male and female samples. Most respondents are married and, on average, 37 year old. Around 40% of all participants are illiterate, 51.3% of women and 30.3% of men. As a result of using the RCT sample to recruit for the experiment, we obtain a sample where self employed women (36%) outnumber self employed men (9%) and the proportion of self employed women in the sample is higher than the national average (as discussed in section 2.2.1). On the other hand, the gender imbalance in paid employment is biased towards males: 53.9% of the men are employed as daily labourers and 23% have salaried employment; against only 9.7% and 4.5% of the women earning daily and salaried income, respectively. There are no statistically significant differences between average characteristics of the RCT and experiment samples. Table B2 in the appendix reports summary statistics of the RCT sample.

Table 2.1 also reports summary statistics for the two measures of empowerment constructed from survey answers described above. Out of nine types of decisions featured in the survey, women on average report to decide alone on average in 4.85 cases and 16.5% of women in the sample are forbidden by their spouse or household head to seek employment outside the home. In the analysis, we will take an index created from decision the female respondent can make alone and if she is allowed to work, as our main proxy of female agency within the household, but will show that the results are robust to using the two variables independently in Table B4 in the Appendix.

Table 2.2 gives the summary statistics of dictator and taking tasks decisions. In the public dictator tasks *Public DG*, participants keep less than half of the endowment and amount kept is higher when matched with strangers. Women keep more on average,

Table 2.1: *Descriptive statistics of the experiment sample*

	Male Mean	Male Sd	Female Mean	Female Sd	Total Mean	Total Sd	p-value
Age	36.32	(11.91)	37.20	(9.328)	36.76	(10.69)	0.338
Married	0.801	(0.400)	0.865	(0.342)	0.833	(0.373)	0.045
Education							
Illiterate	0.303	(0.461)	0.513	(0.501)	0.408	(0.492)	0.000
Primary	0.270	(0.445)	0.210	(0.408)	0.240	(0.427)	0.108
More than primary	0.225	(0.418)	0.210	(0.408)	0.217	(0.413)	0.664
Occupation							
Housewife/not looking for work	0.011	(0.106)	0.479	(0.501)	0.245	(0.431)	0.000
Self-employed	0.094	(0.292)	0.356	(0.480)	0.225	(0.418)	0.000
Labourer	0.539	(0.499)	0.097	(0.297)	0.318	(0.466)	0.000
Salaried	0.228	(0.421)	0.045	(0.208)	0.137	(0.344)	0.000
Female agency							
Decide alone			4.85	(3.042)			
Not allowed work			0.165	(0.372)			

Note: $p-value$ in the far right column are from a t-statistic test of the difference in means across gender, after controlling for session fixed effects.

and the difference between men and women is largest in the partner matching, due to men keeping on average less than 400 PKR. A similar overall allocation pattern can be observed in the private dictator game (*Private DG*). This gender difference in behaviour is consistent with results from similar lab-in-the-field experiments in the literature (Castilla, 2015; Hoel, 2015), where women are found to transfer less to their spouses than men. We similar patterns when the endowment is earned (*Earned DG*) but overall subjects keep a larger share of earned than unearned endowments. When the decision is that of taking part of the partner's earned endowment (*Earned TG*), subjects on average assign to themselves a smaller share than the one kept in the earned endowment dictator game, although not significantly so (p = 0.1462). As with dictator games, subjects take more from strangers (p = 0.2601), and women take significantly more than men (p = 0.0000).

Women tend to take less than they keep with respect to men.

Table 2.2: *Summary statistics of experiment allocations made to 'self' (PKR)*

		Male		Female		Total		*p-value*
		Mean	Sd	Mean	Sd	Mean	Sd	
Public DG	*All*	433.0	(222.0)	543.4	(189.3)	488.2	(213.4)	0.000
	Stranger	474.8	(225.4)	580.2	(183.3)	527.5	(211.7)	0.000
	HH	392.6	(211.7)	508.1	(189.0)	450.4	(208.5)	0.000
Private DG	*All*	456.9	(223.9)	530.7	(191.2)	493.8	(211.3)	0.000
	Stranger	483.2	(226.7)	576.3	(190.5)	529.8	(214.1)	0.000
	HH	431.6	(219.0)	486.8	(182.1)	459.2	(202.9)	0.024
Earned DG	*All*	45.43	(17.40)	52.91	(10.32)	49.17	(14.77)	0.000
	Stranger	47.87	(16.36)	55.00	(10.43)	51.43	(14.15)	0.000
	HH	43.08	(18.11)	50.89	(9.819)	46.99	(15.05)	0.000
Earned TG	*All*	44.88	(16.07)	51.64	(12.14)	48.26	(14.63)	0.000
	Stranger	44.51	(15.20)	53.46	(10.75)	48.99	(13.89)	0.000
	HH	45.24	(16.92)	49.88	(13.14)	47.56	(15.30)	0.007

Note: All amounts refer to the amount that the participant keeps for self when allocating endowment or earnings. *Stranger* refers to the sub-group paired with a stranger of the opposite gender. *HH* refers to the sub-group paired with the household member. 'DG' are allocations in the dictator games. *Earned DG* is the share of own earnings allocated to self (over amount PKR 0 - 1000) on average in the dictator game, *Earned TG* is the share of partner's earning taken for self on average in the taking game. $p-value$ in the far right column are from a t-statistic test of the difference in means across gender, after controlling for session fixed effects.

Table 2.3 presents the variables discussed in section 2.1 that are constructed from decisions in dictator and taking tasks and will be used in the analysis. The first six columns of the table show the mean and standard deviation of each variable for men, women and the overall sample. These are then broken down by matching treatment to give a sense of differences in behaviour in these tasks when subjects were matched with a stranger or with a household member. In the last column, we report p-values of the female dummy's coefficient from a regression of each variable on gender and session fixed effects. For each variable, the rows report the overall means of the amounts kept for self and the standard deviation. On average, we do not find significant differences

in behavior by gender. Men in general are significantly less respectful of the partner's earnings and feel more entitled to their own earned income than women, especially in the household partner treatment.

Table 2.3: *Summary statistics of experiment measures*

		Male		Female		Total		*p-value*
		Mean	Sd	Mean	Sd	Mean	Sd	
Opportunism	*All*	0.228	(0.421)	0.228	(0.421)	0.228	(0.420)	1.000
	Stranger	0.206	(0.406)	0.244	(0.431)	0.225	(0.419)	0.463
	HH	0.250	(0.435)	0.213	(0.411)	0.232	(0.423)	0.477
Entitled	*All*	0.322	(0.468)	0.266	(0.443)	0.294	(0.456)	0.144
	Stranger	0.305	(0.462)	0.267	(0.444)	0.286	(0.453)	0.489
	HH	0.338	(0.475)	0.265	(0.443)	0.301	(0.460)	0.187
Low respect	*All*	0.281	(0.450)	0.213	(0.411)	0.247	(0.432)	0.067
	Stranger	0.244	(0.431)	0.214	(0.412)	0.229	(0.421)	0.558
	HH	0.316	(0.467)	0.213	(0.411)	0.265	(0.442)	0.052
Risk preferences		3.700	(1.312)	3.558	(1.346)	3.629	(1.330)	0.203
Observations		267		267		534		

Note: *Stranger* refers to the sub-group paired with a stranger of the opposite gender. *HH* refers to the sub-group paired with the household member. *Hide* is a dummy variable that is 1 if the participant keeps more for self in the private round than in the public rounds of the dictator game, and 0 otherwise; *Entitled* is the difference in the share of an endowment that participants allocate to self when the endowment has been earned by them and when it is a windfall; and finally, *Low respect* is a dummy variable that is 1 when the participant allocates more to self when taking from the partner's earning than when giving from own earning, and 0 otherwise. $p - value$ in the far right column are from a t-statistic test of the difference in means across gender, after controlling for session fixed effects.

2.3.2 Correlates of opportunism in the experiment

We begin by looking at our measure of opportunism as laid out in Section 2.1. This means investigating how the amount kept for oneself differs for women if the allocation can be kept hidden from one's partner. In order to control for risk-loving behaviour within the experiment, we elicit risk aversion and control for it when analysing results. We

run linear regressions of *Opportunistic* behavior on the *Low respect* and *Entitled* dummies, interacted with a variable equal to one if a subject was matched with a household member. All regressions control for individual characteristics - age, marital status, education, occupation and household assets - and include session fixed effects. Table 2.4 shows regression results for the whole sample (Column 1), men (Column 2) and women (Column 3).

On average, women are more likely than men to act opportunistically, preferring to keep more of their experiment earnings for themselves when they can conceal allocation shares from their partners. The underlying hypothesis is that variables that capture a woman's status within the household, such as her feeling of entitlement or expectation of partners' respect for her earnings, should matter only when the partner is a household member. This is generally confirmed in our results - entitlement to earnings and measures of respect by partners does not correlate with opportunism when paired with strangers.[14] However, women who feel entitled to their earnings are 34 percentage points more likely to act opportunistically when matched with a household member. Facing a household member who shows low respect for one's earnings significantly increases the likelihood for women to act opportunistically by almost 20 percentage points when the partner is a household member.

Both results are driven by women, suggesting that individuals - who are likely to have limited control over income outside the experiment - take the opportunity to earn more within the games by keeping more money for themselves in private than in public DG. The same is not expected of the men, who are likely to have higher levels of decision making power and control over resources in the household. Indeed, we find the behavior of men paired with female household members does not correlate with measures of respect and entitlement.[15]

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[14]The negative coefficient on *low respect* for men is puzzling, but only marginally significant.

[15]70% of the women participated in the experiments with their husband; 17% with their son, 8.5% with their brother or brother in law; and 4.5% with father or father-in-law. Results are qualitatively similar when we consider each type of pairing separately

Table 2.4: *Correlates of opportunism behavior*

Dependent variable	Opportunistic		
	All	Male	Female
	(1)	(2)	(3)
Female	0.075*		
	(0.043)		
HH Partner	-0.068	-0.140	0.029
	(0.096)	(0.169)	(0.123)
Entitled	0.108	0.077	0.109
	(0.068)	(0.095)	(0.099)
Low respect	-0.100*	-0.138*	-0.060
	(0.056)	(0.082)	(0.090)
Female agency			0.058*
			(0.032)
HH Partner×Entitled	0.223**	0.161	0.335***
	(0.088)	(0.118)	(0.128)
HH Partner×Low respect	0.204**	0.187	0.195*
	(0.080)	(0.121)	(0.118)
HH Partner×Female agency			-0.121***
			(0.045)
Constant	0.199	0.322	0.183
	(0.138)	(0.251)	(0.170)
Observations	533	266[†]	267
R^2	0.193	0.261	0.322
Parameter equality (*p-value*)		0.000	

Note: OLS regressions. Standard errors in parentheses, clustered at the pair level in Column 1, robust in Column 2 and 3. All regressions control for age, education, occupation, household assets, giving in the public DG and being household head; and include session and household fixed-effects. Parameter equality *p-value* between column (2) and (3) are calculated from Seemingly Unrelated Regressions. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.
[†]Data on a control variable, age, is missing for one male respondent.

This finding is reinforced when we test how opportunism within the experiment correlates with measures of agency outside of the laboratory. Women who have more agency within the household are significantly less likely to act opportunistically, as they are probably better able to protect their resources from appropriation by household members. The coefficient on agency when paired with stranger is positive and marginally

significant - women who have a greater say in the household act less altruistically against strangers when they know their decision will not be revealed. These results imply that merely being matched with a household member has no effect on opportunism: it is only when subjects have pent-up demand for agency or face a controlling partner that being matched with a household member has significant effect on opportunism. We find qualitatively similar results when we replace dummy variables for opportunistic, low respect and entitled dummies with differences in allocations between private and public, and between earned and unearned dictator games. The results are reported in Appendix Table B3.

Overall, these results suggest that women who live in households where they are granted decision power and whose ownership of their earned resources is respected are less likely to act opportunistically. It is possible that experiences of the women and their households affect these preferences and measures of empowerment. We explore this possibility next.

2.3.3   Sources of empowerment and demand for agency

Does having access to finance, working outside the home or having to make decisions over one's own earnings and business affect a woman's empowerment and preferences? Since the decision to become an entrepreneur or to get a loan are endogenous to women's preferences and normative environment, we address this question by taking advantage of the fact that women in our sample were part of an RCT for micro-enterprise start-up. While we expect some change to reflect in the RCT participant's behavior, we do not expect the loan and training given to the respondent to directly effect others' behavior - for instance, the respect other household members show to her resources in the experiment. Namely, we examine whether being randomly selected to receive a loan and business training influences a woman's decision autonomy within the household and her feeling of entitlement over her own earnings. Of course, we do not know if women applied for a

loan because of a genuine aspiration to start their own business, or if they later found out their funds, time or resources were still insufficient to set up a business. For these reasons, we look at *intention-to-treat* (ITT) estimates in the present analysis.

Table 2.5 shows these results. The dependent variable in column (1) is the *entitled* dummy, capturing feelings of ownership over one's earned income. The dependent variable in column (2) is the household agency dummy, which we interpret as indicator of decision power in the family (column (2).[16] That is, we consider the effect of treatment on two variables that we find to be significantly correlated with opportunism in women in Table 2.4. Since data for this analysis comes from a small sample, we also show the minimum detectable effect (MDE) size for each of our finance and business training effects on outcomes. This is the ex post effect size that would have been detected at 5 percent significance level and 80 percent power for our sample size (Duflo et al., 2008; Haushofer and Shapiro, 2016).

Finally, to address the issue of multiple testing, we follow Anderson (2012) and construct an index of empowerment combining *entitled* and *agency in household*. The index provides a statistical test for whether the treatment has a general effect on a set of outcomes: in this case the two dependent variables capture different aspects of a woman's empowerment, defined as desiring and exercising agency. Second, the index may be more powerful than its individual components, reaching statistical significance where each single variable does not. These arguments are made extensively in Anderson (2012). Regressions where the outcome was collected through behavioural experiments include session fixed effects, replaced by branch fixed effects when the outcome is constructed from survey questions.

Regression results show that, in general, average treatment effect (ATE) on empowerment is positive, which is statistically significant when we use agency in the household

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[16]Note that there was no difference in the household agency index at baseline between the treatment and the control group (p-value of 0.806) and the two groups were balanced across other characteristics as well at 5% level of significance. We also considered separately decision power related only to financial matters but found no significant difference between the two groups.

Table 2.5: *Effect of finance and business training on empowerment*

Dependent variable:	(1) Entitled	(2) Agency in household (index)	(3) Weighted index
Dummy: ITT	0.0637	0.324**	0.416**
	(0.090)	(0.128)	(0.203)
Constant	0.020	-1.091**	1.602**
	(0.314)	(0.427)	(0.701)
MDE	0.153	0.378	0.347
Session F.Es.	Y	N	Y
Branch F.Es.	N	Y	N
Observations	267	267	267
R^2	0.542	0.241	0.556

Note: The dependent variable in column (3) is a weighted index of the entitled and HH agency indicators, based on Anderson, 2012. ITT is a dummy equal to one if the respondent was part of the RCT treatment group. All regression include controls for age, marital status, indicator variables for whether the respondent was a housewife and literate, an asset index, household fixed effects and robust standard errors. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. Robust standard errors in parentheses. $***p < 0.01, **p < 0.05, *p < 0.1$.

as a proxy: the index increases by almost 0.32, on a scale from -2.7 to 1.9. When looking at the aggregate weighted index of empowerment, the positive effect of having access to finance and training is confirmed (statistically significant at the 5% level). Overall, while the effects are limited and imprecisely measured, as one would expect from a treatment that consisted in three hours of training and a small loan, it is remarkable that these effects are positive and detectable one year after the treatment. Providing women with funding and training makes them more empowered within their household, by increasing their decision autonomy and work possibilities.[17]. The null results for entitled (and for opportunism in Table B5) are possibly because we are underpowered to detect them.

Next, we test whether these results are due to the experience of having successfully started a business with the microenterprise loan, by finding the local average treatment

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[17]These results are robust to replacing the index for female's agency in the household with the two variables composing it, decision autonomy and being allowed to work, as Appendix Table B4 shows.

effect (LATE) on the entitled dummy, the household agency index and the index of empowerment constructed from them. The first stage shows that treatment increases the likelihood that a woman starts a business over the year since she was deemed offered to receive a loan, by 11 percentage points (p = 0.068). Qualitatively, the effect of having started a business, instrumented by treatment, is the same as that of treatment status in the reduced-form regression (Table 2.6). However, only the effect on household agency is significantly different from zero. Taken together, the results seem to suggest that success in starting a business affects the ability of the treatment to influence female agency.

Table 2.6: *Effect (LATE) of starting a business on empowerment*

Dependent variable	(1) Entitled	(2) Agency in household (index)	(3) Weighted index
Dummy: Respondent starts a business	0.392	3.079*	2.554*
	(0.511)	(1.577)	(1.439)
Constant	-0.420	-4.536*	-3.970**
	(0.699)	(2.158)	(1.968)
First stage F-stat	3.20	3.20	3.20
Session F.Es.	Y	Y	Y
Observations	240	240	240
R^2	0.517	0.218	0.268

Note: The dependent variable in column 3 is a weighted index of the entitled and HH agency indicators, based on Anderson, 2012. Business is the instrumented value for effect of RCT treatment (getting a loan and training) on the likelihood of starting a business. All regressions include controls for age, marital status, indicator variables for whether the respondent was a housewife and literate, an asset index, household fixed effects and robust standard errors. The results excludes 27 respondents for whom data on business status is missing. Robust standard errors in parentheses. $***p < 0.01, **p < 0.05, *p < 0.1$.

Note that the ATE and LATE on the individual proxies of empowerment in Table 2.5 and Table 2.6, respectively, is statistically significant only for measure of agency household constructed from survey answers, and not on the measure of entitlement generated in the laboratory. It is possible that the decision environment between the laboratory and the field make the link between the former and the latter less than direct. As List (2009) points out, the laboratory differs from the field in crucial dimensions - the size of the stakes, the

time horizon, the available choices and the extent of scrutiny - that prevent generalizability from laboratory to field behaviour. Consistent with this, when we regress opportunism on being treated in the RCT, as well as when we instrument the empowerment index with treatment and regress opportunism on instrumented empowerment, we do not find any statistically significant effects (Table B5 in the Appendix shows the regression results).

Overall, the results from the combination of laboratory and field evidence suggest that opportunistic behavior among women within the lab-in-the-field experiments is negatively correlated with measures of household members' norms and preferences, and female agency within the family. These preferences are in turn positively influenced by women's access to finance and training to set up their own business. We show suggestive evidence that this effect may be driven by women who actually start a business as a result of the treatment.

2.4   Conclusions

In this paper, we attempt to explicitly measure household norms that can affect the decisions individuals make about money, specifically the decision to act altruistically or opportunistically towards other members of the household. We use a sample of women who participated in a microenterprise loan RCT in Punjab, Pakistan. We investigate the correlates of opportunistic behavior within laboratory experiments, one year after the provision of the loan by conducting a standard dictator activity with public and private rounds, dictator and taking (or reverse-dictator) activities with earned endowments and a risk preference elicitation activity. We test if opportunistic behavior among household members is correlated with feeling of entitlement over their own resources, decision autonomy within the household and with their household members' tendency to appropriate their earned resources. Finally, we look at if these dimensions of empowerment can be influenced by women's experiences, namely access to finance and training.

We show that women are less likely to act altruistically when their decisions cannot be perfectly observed by others. However, this opportunistic behavior is strongly correlated with experiences in the household. Among women, opportunistic behavior with household members is more likely when they feel entitled to own earnings and when household members show a low level of respect for their right to their earnings. We take these findings to imply a *pent up* demand for agency. Indeed, opportunistic behavior is less likely in women with higher levels of decision making powers within the household. Our results are similar to recent findings from Kenya, where the degree of cooperativeness among spouses varies by expectation of reciprocal behavior (Barr et al., 2017). Further, women in our sample who were randomly selected to receive funding and training as part of the RCT - an experience that is expected to increase empowerment - report higher levels of agency within the household one year later. This effect is likely to be driven by the actual experience of starting a business and implies individual experiences can affect our measures of empowerment and opportunism within the household. Unfortunately, the small size and heterogeneity of our sample limit the statistical significance of our results, as shown by calculations of the minimum effect size.

Early tests of household models have shown a strong effect of altruism and opportunism on whether efficiency gains can be realized. Our results show intra-household altruism is heterogeneous: altruism can be overturned by power asymmetries between household members. It highlights the role of pent-up demand for respect and agency between household members as key enablers of inefficiency. While the small number of women within the treated group who set up a business suggests caution, these results suggest that interventions aimed at improving the impact of microfinance on female outcomes should target intra-household constraints on empowerment, in addition to the financial and business knowledge for business creation targeted by the present RCT. From a purely methodological perspective, we show how simple games can offer measures of preferences that meaningfully correlate with economically relevant behavior within and

outside the laboratory.

The particular nature of our sample, made by women who self-selected into applying for a loan to start their own business, leaves open the question of how these results generalise to a more representative population of women. This is an interesting avenue for further research. However, our results are still pertinent to policy makers and microfinance institutions alike that, by virtue of their own agenda, often attempt to promote enterprise and empowerment among women through access to finance. Adding elements directly targeted at shaping social and intra-household norms are critical for increasing the effectiveness of such interventions for improving female agency.

Chapter 3

The role of gender norms in generating microenterprise[1]

Microfinance has long been credited with the power to bring about social and economic change. In general, microcredit has the potential to directly affect household income; and in particular, by targeting women it can potentially improve female autonomy and household welfare (Aghion and Morduch, 2005; Pitt et al., 2006). However, recent evidence on the effect of access to microcredit has shown limited effect on businesses by women.[2] In a randomised control trial in 2014 to provide microloans to women in peri-urban areas of Pakistan, we found a statistically significant impact (22 percentage point) on business creation but with a high business turnover within one to two years of first setting up the business (Said et al., 2018). While literature suggests a lack of technical expertise (Blattman et al., 2015), cooperation in the household (de Mel et al., 2009, 2012), appropriation of resources (Fiala, 2015) and time spent on household chores (Banerjee et al., 2014) as possible reasons for the failure of microcredit to improve outcomes for businesses headed by women, they fail to consider the role played by internalized gender norms.

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[1]Co-authored with Mahreen Mahmud, Giovanna d'Adda and Azam Chaudhry
[2]See for instance, (Angelucci et al., 2015; Banerjee et al., 2015; Ginè and Mansuri, 2017; Said et al., 2018).

In their seminal paper, Akerlof and Kranton (2000) hypothesize that men and women internalize gender specific rules of behavior that provide them with an 'identity' or sense of self. More recently, stude is have documented the negative affects that contravening social norms can have on subjective wellbeing (Bertrand et al., 2015; Seymour and Floro, 2016). *Identification* with and *internalization* of gender norms present a relevant framework for considering gender roles and household division of labor. Disutility incurred by contravening gender rules can limit the use of microcredit for female enterprise and partly explain the small impact of finance.

We use incentivised artefactual experiments and survey data on a sample of women who participated in a microfinance Randomised Control Trial - collected two years after the treatment loan had been first disbursed - and test for the presence of internalized gender norms and identity and their impact on business preferences. We do this in two main ways. First, we elicit male and female preferences individually in a context where socially unacceptable preferences are less likely to be openly exhibited. We allow females the 'moral wriggle room' and anonymity to provide honest opinions (Dana et al., 2007). We find that 69% of the men prefer that their female partners set up an enterprise at home compared to 18% who would prefer a potentially larger business that would involve her venturing outside the home. Female preferences are qualitatively similar, with a slightly smaller proportion preferring an enterprise at home (66%). We show these preferences are not driven by profit considerations, nor by the need for women to spend more time at home to complete housework or their low levels of decision making power at home.

Second, we investigate if the the reluctance to interact outside of the household extends to other behavior that can have an impact on business outcomes. We present a series of quiz questions to women that were rewarded if answered correctly and the option to learn from the 'advice' of their male partner or a field specialist. The expert advice did not require the respondent to leave her home or interact with he stranger personally, removing security considerations from the decision. We find that even when advice from

expert has instrumental value, women are more likely to ask their male partners for advice. In fact, 40% of the women forgo advice from an expert outside the home even when it is free.

We find that women in our sample have a distinctly home-ward looking preferences for advice that can limit the impact of female-run businesses on household income and welfare. So far as consultation and advice from peers can be considered an important source of information for setting up or expanding a business, a lack of demand for advice is one explanation for why female-run businesses do not grow or survive. Finally, our results suggest that microcredit fails to change these preferences and may not be the binding constraint on the creation or growth of enterprise by women.

To the best of our knowledge, this is the first study that looks at the role of internalized gender norms on the decision by a woman to set up an enterprise. We add to the vast literature on microfinance that has looked at the impact of loans on business outcomes for women. We also add to a strand of literature that uses gender identity to explain behavior in a variety of contexts such as, the impact of gender quotas in Indian politics (Mueller, 2016), in decisions regarding females continuing their education (Dhar et al., 2015) or applying to jobs(Codazzi et al., 2017; Bursztyn et al., 2017).

We add to the literature on social learning and advice-taking that has found a low willingness to pay for advice and information from peers in general (Stone and Zafar, 2014; Cole and Fernando, 2012; Barham et al., 2017). Studies generally find a lack of demand for advice to be driven by the need to avoid finding out about negative outcomes. [3] We contribute to this literature by exploring social gender norms as another explanation for a lack of demand for advice.

In the remainder of the paper, we describe the study design and implementation (Section 3.1) and estimation strategy (Section 3.2). We discuss results in Section 3.3 and conclude in Section 3.4.

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[3]See, for instance, (Golman and Loewenstein, 2015). Weizsacker (2008) provides a review of studies on social learning.

3.1 Experiment Setting and Design

3.1.1 Setting and implementation

Our survey uses incentivized survey questions administered to a sample of microfinance RCT participants in peri-urban areas of Punjab, Pakistan (see Said et al. (2018) for details). Pakistan is an interesting setting for exploring the relationship between gender norms and enterprise. However, conventional social and gender norms have had a role in limiting female participation in the labor force. Indeed, one out of every three woman who works in Pakistan, works from home. Of the women who do not work, 40% report this is because their family members will not allow them to work outside the home. An additional 15% report that they themselves would not like to work outside the home.[4]

The RCT was administered in 2014 to 630 women in peri-urban areas of three districts of Punjab, Pakistan - Bahawalpur, Gujrat and Sialkot.[5] Randomly selected women given a small, 12-month enterprise loan of PKR 30,000 ($\approx$ $300) by the collaborating organization, Kashf Foundation. Loan recipients were also given a small workshop on basic marketing, networking and accounting concepts at the time of loan disbursement. Baseline surveys for the RCT were administered in August 2014; followed by followup surveys in 2015 when the the loan had been fully repaid; and in 2016, two years after the loans were first disbursed. We use incentivised questions in the second followup survey to measure preference for advice and potential business location among female RCT participants and a male member from their household. We administer these questions first to the men and then to the women, as explained in Section 3.1.2 to 585 households that participated in the RCT. We use a total sample of 585 men and 564 women.[6]If the female was respondent

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[4]From the Pakistan Time Use Survey 2007, as calculated by Field and Vyborny (2016).

[5]Located in south and center of the the province of Punjab, Bahawalpur, Gujrat and Sialkot had average monthly household incomes of PKR 30,294 (~$300), PKR 51,854 (~$520) and PKR 29,110 (~$290), respectively (Inflation adjusted estimates from Pakistan Social and Living Standards Measurement survey 2010-11). Gujrat and Sialkot are among the better educated districts in the province, ranked at 19 and 13 out of the 36 districts in the province, Bahawalpur, is ranked 31st (Memon et al., 2014).

[6]To preserve anonymity of female responses in one part of the survey females were asked to record

was unmarried or in case the husband was unavailable, then we interviewed an adult, male decision maker in the household. Of the 585 male respondents, 74% were husbands, 12% were sons and 4% were brothers of female respondents.

Men and women were not allowed to sit together and could not communicate their responses to each other. Further, we randomized question versions at the household level to avoid information spillover between respondent households in the same community. All earnings from the incentivised questions were revealed privately, at the end of the male and female surveys.

We have data on demographics, household decision making parameters, access to finance and household expenses and assets from the follow-up survey conducted in 2016. Table C1 in the appendix presents descriptives of the 564 women in our final sample. The average female respondent was 37 years old at the time of the baseline and is currently married. About half of the respondents are housewives, while 30% of the sample either had a business, or works as a salaried or day laborer. The median female has low decision-making power in the household.

3.1.2 Experiment design

The design of the two experiments is based on the intuition described by Akerlof and Kranton (2000) where social categories prescribe specific rules of behavior for gender categories. Individual utility is a function of the satisfaction (dissatisfaction) derived from own and others' conformity (contravention) of the rules for their category. Choice of preferred activity provides an individual with positive utility while an activity that does not match her taste earns zero or negative utility.

In the context of our sample of aspiring or current female entrepreneurs, we can consider *conformers* prescribe to the following rule: Men go out of the home to earn;

their preferences on a paper and put it in a sealed envelope. Due to errors in data entry, we could not match identifiers for 21 women and their data was dropped from the analysis. These women are not statistically different in any dimension from the sample that has been used in the following analysis.

women are caregivers in the household. Women can set up an enterprise to augment household finances or for her own use, but only after consultation with the household members and never an enterprise that involves her regularly venturing out of the household. By extension, nor would she prefer to interact with outsiders, for instance to seek the advice for business. This sub-game equilibrium corresponds to women acting as *proxies* of men or the society at large by internalizing the gender norm - they prefer to not venture outside the household, neither for business nor for advice. By engaging in an enterprise outside the home, a woman will not be considered a true *conformer* and experience a loss of identity. This is likely to happen until sufficient individuals belong to the *contravening* group for behavioral prescriptions to change or for their actions to not cause social anxiety. Incentivized survey questions allow us to test if the average female preference for business reflects that of a *proxy* who has internalized gender norms; or if indeed women would prefer to venture outside the household and are restricted from doing so due to household sanctions.

A summary of the steps followed in each experiment is provided next below. Appendix C.3 contains the detailed protocol followed by the enumerators for the two experiments.

Elicitation of business preferences

We use incentivized survey questions to elicit male and female preferences for whether the female respondent should operate a business and if she should, then where should such a business be operated from.

Step 1: We separately asked men and women to rank business opportunities in increasing levels of profit. They were presented with three opportunities, with differing levels of income and expenditure. The business opportunities differed in where the business activities had to be conducted: at home, by going to the nearby market or by going to the nearest big city to work with a distributor. In one version of the questionnaire, these opportunities were associated with increasing levels of profits; that

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is, profits increased from a business at home to one in the big city. In another version, these opportunities were associated with decreasing levels of profits, with the highest profits to be made at home and the lowest when going to the big city. This randomization allows us to separate location preferences from profit considerations.

Respondents earned PKR 100 (~$1) for ranking opportunities in increasing order of profits. This step allows us to check respondent understanding of profit levels. Subsequent decisions could then be separated from considerations of aptitude in estimating profits from costs and revenues.

Step 2 (male): We asked each male respondent which of the three business opportunities would he prefer for the female respondent. They could also choose for her to do none of the three.

Step 2 (female): The corresponding question asked to women had two parts: first, they were asked to imagine a hypothetical situation where access to finance or permission from household members was not a constraint and then to provide their preference for one of the three businesses or doing nothing. This part of the survey was not incentivized. To elicit honest responses these decisions were recorded privately - respondent marked their preferences on a piece of paper that they submitted to the enumerator in a sealed envelope.[7] Next, we test for the accuracy with which women can predict male preferences. They were rewarded PKR 100 if they could correctly guess what their male partners had said in response to the same question.

Note that we do not attempt to disentangle reasons for preferring a location , other than it is not related to profits. For instance, respondents may prefer a business at home because that does not require the women to leave the home, is inherently safer and/or provides more time for household chores (Field and Vyborny, 2016). Instead, we try to

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[7]While the rest of the survey was conducted on a tablet, we used paper to record the response to this question. Paper was used for two reasons: Direct entry on tablets was not something that could be as easily understood by the sample as ticking a preferred option on a piece of paper. In addition, confidentiality was more credibly maintained once their answer was sealed in an envelope, unseen by the enumerator who was interviewing the participant and seen only by the researcher who would enter the data later.

measure an overall preference over locations, separate from what the household members may prefer for her.

Elicitation of demand for advice

We elicit measures of female demand for advice from the male partners or from an 'expert' with field expertise. Note, advice related to hypothetical or real business issues would vary with the level of business experience of the male and female respondent. We use randomly selected questions testing general knowledge and abstract reasoning (using Raven's matrices) to remove confounding effects of existing business knowledge and to test for a generic demand for advice. We inform the female respondents that they will be rewarded with PKR 200 (~$2) for every question they answer correctly.

Step 1: We ask men one knowledge and one abstract reasoning question and ask them to provide two possible answers for each question. Men are informed that we may provide the two responses to their female partners as 'advice' and that each question that his female partner answers correctly will earn her PKR 200.

Step 2: We ask the female respondent the same knowledge and abstract reasoning questions. Before providing final answers, they are also provided the opportunity to 'purchase' advice for each question from the male partner or an expert for PKR. 0, 50 or 100 ($\approx$ $0, $0.5 or $1, respectively). The 'advice' will be in the form of two answers that her male partner or the expert thinks is the correct answer. By design, the two options included in the expert's 'advice' always had the correct answer.

We elicited female demand for advice from two types of advisers (expert or husband) at these three levels of cost. The actual cost and adviser available to the respondent was randomized and disclosed only after the respondent had indicated her preferences for each type and cost of advice. That is , one of six scenarios - two different sources of advice, at 3 possible prices, was randomly implemented, allowing female respondents to *plausibly deny* whether they had agreed to purchase advice from their husband or expert.

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Step 3: We implement the choice women make about purchasing advice and ask them to provide the answer to each question asked. Note, while advice narrows down choice by listing the two answers male partner or expert thinks are correct, it does not eliminate all risk and women still have to make a final decision.

Note that the cost of advice is strictly less (or free) than the expected rewards. Therefore, in expectation, women should rationally take advantage of advice to maximize reward. In fact, 'expert' advice should be sought more in comparison to male advice if maximizing reward is the dominant concern. Questions were randomized by household. Appendix C.3 lists the knowledge and puzzle questions that were asked.

3.2 Estimation strategy

We use data collected from these two experiments to measure the extent of 'home bias' in demand for enterprise and advice. That is, we test if women tend to be *proxies* of gender prescriptions or if they prefer *profit maximizing* ventures that can be extended out of the household when needed. Women are less likely to engage in business activities outside the household if costs from loss of identity and reprimand from other members of the society exceeds the utility from a large business. We measure if the men are likely to be in favor of their household member setting up a business, or the location of her business, by directly eliciting their preference on this decision.

We estimate an ordered logit model to explore correlation between preferences for business and individual characteristics. In the ordered logit model, observed response to questions on preferred business location is tied to the latent preference (y_i^*) by a

measurement model that divides y_i^* into 4 categories and then estimates equation (3.2):

$$y_i = \begin{cases} 0 & \text{if underlying preference, } y_i^*, \text{ is 'do nothing'} \\ 1 & \text{if respondent preference, } y_i^*, \text{ is business at 'home'} \\ 2 & \text{if respondent preference, } y_i^*, \text{ is business in 'nearby market'} \\ 3 & \text{if respondent preference, } y_i^*, \text{ is business in 'big city'} \end{cases} \quad (3.1)$$

$$y_{j,i}^* = \beta_0 + \beta_f \cdot \texttt{Female}_i + \alpha_1 \cdot z_i + \varepsilon_i \quad (3.2)$$

Where *Female$_i$* is a binary variable equal to 1 if the individual is female. β_f provides the average difference between male and female preferences. z_i includes variables that control for age of the female respondent, household assets and the version of questionnaire that was administered. All standard errors are clustered at the household level.[8]

Second, we attempt to understand what drives these preferences by testing if these preferences vary by female circumstances. We use the Anderson (2008) method to create an index out of variables measuring female role in household decisions about clothing, food, medical expenditure, finance and recreation. We also test if these preferences vary with the female respondent's responsibilities at home. For instance, as the primary caregiver in the household, she may prefer a home based enterprise if she feels she will be unable to find time away from household chores and care of family members. To explore this channel, we test if preferences vary for women with 'young' (aged 5 years or younger) children. Finally, we exploit the fact that one half of the sample was randomly selected to receive an enterprise loan to set up a new business and test if preference change in response to a microfinance product designed to encourage female enterprise.

Third, we test if business preferences is correlated with the need to obtain feedback

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[8]'Household' denotes the female and her male partner participating in the experiment from her household. Business opportunities were associated with increasing levels of profits in Version 1 and decreasing levels of profits in Version 2. Survey version was randomised at the household level.

and advice from male partners or from experts outside the home. We investigate if

$$y_{j,i} = \beta_0 + \beta_{WTP} \cdot \texttt{WTP}_w i + \beta_{WTPE} \cdot \texttt{WTPexpert}_i + \alpha_1 \cdot z_i + \varepsilon_i \tag{3.3}$$

Where y_i is still the preference for business location ($y_i = 0, 1, 2, 3$ for *nothing, home, nearby market, big city*) by individual i. WTP_i is a binary variable equal to 1 if the female is willing to pay a positive price to obtain advice. Women who are considering setting up an enterprise that requires going out of the household, may feel a greater need for advice. Conversely, women who conform to conservative gender norms may do the opposite. Finally, we test if the willingness to pay for advice varies by the identity of the adviser. $WTPexpert_i$ is a binary variable equal to 1 if the female is willing to pay a positive price to obtain advice from an expert. Social norms that restrict interactions with outsiders may also be reflected in a lower demand for advice from experts outside the household.

3.3 Results

3.3.1 Preference for enterprise

Average understanding of profit levels is high - 76% of the respondents correctly rank profits. The likelihood of providing the correct ranking is not statistically different across the question versions. Women are only 3.5% less likely then men to rank correctly once we control for female characteristics, version and household effects, a difference that is economically small, though statistically significant. [9]

Preference for a business restricted to the home is the median response in our female sample (See Table 3.1). Figure 3.1, shows male and female preferences for the different business opportunities, by location and profit levels. Very few respondents prefer for the women to do nothing (approximately 14% of both men and women). Demand for profits is non-monotonic and respondents in our sample do not always opt for the

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[9]See Figure C1 in appendix C.1 for average responses by gender and question version.

Table 3.1: *Descriptive data on female response in experiments*

	N	Mean	S.Dev.	Median	Min.	Max.
Preferred business opportunity (Males)	585	1.2	0.8	1.0	0.0	3.0
Preferred business opportunity (Females)	564	1.2	0.8	1.0	0.0	3.0
Dummy: Wants partner advice	564	0.8	0.4	1.0	0.0	1.0
Dummy: Wants expert advice	564	0.6	0.5	1.0	0.0	1.0
Dummy: Is willing to pay a non-zero price for partner advice	564	0.3	0.5	0.0	0.0	1.0
Dummy: Is willing to pay a non-zero price for expert advice	564	0.2	0.4	0.0	0.0	1.0

Note: Preferred business opportunities is a multivariate variable with values 0 for 'Do nothing', 1 for 'Business: home', 2 for 'Business: nearby market' and 3 for 'Business: big city'; 'wants advice' are binary variables equal to 1 if the respondent agrees to advice for free or at non-zero prices; and 'advice' refers to the two best options selected by male partner or expert for any kind of question asked (knowledge, abstract reasoning or both).

option associated with the highest profits. This apparent anomaly in profit maximizing behavior can be explained when we take into account the 'location' that each business opportunity involves. The high demand for an opportunity that afford low profits is driven by female preference for a business at home. Demand for business at home is significantly larger than the demand for a business operated outside the home, even when business operations outside the home are associated with high profits. That is, location takes precedence over the profit considerations. Second, there is a strong and clear preference for home based businesses among both men and women. There are no statistically or economically significant differences in the preferences displayed by both men and women.

It is also worth noting that women are well aware of male preferences.Figure3.2 plots

Figure 3.1: *Business preferences by gender*

Note: *x-axis* shows the business opportunity selected by men for women or by women for themselves, by the level of profits associated with each option (None, Low, Medium or High). The *y-axis* displays the respondents who select the relevant option as a percentage of all respondents who were able to rank business opportunities by profits correctly. Vertical bars represent the 95% confidence interval.

male preferences and women's guess of the preferences of her male partner. Differences between the actual male response and female guess are both economically and statistically insignificant. That is, it is highly unlikely for a woman in this sample to prefer a different business opportunity from that of her male partner because she is unaware of what he may prefer.

3.3.2 Preference for advice

We next look at the average demand for advice for different source and cost of advice. As expected, the demand for advice from both male partner and expert falls with increasing

Figure 3.2: *Female guess of male preference for business location*
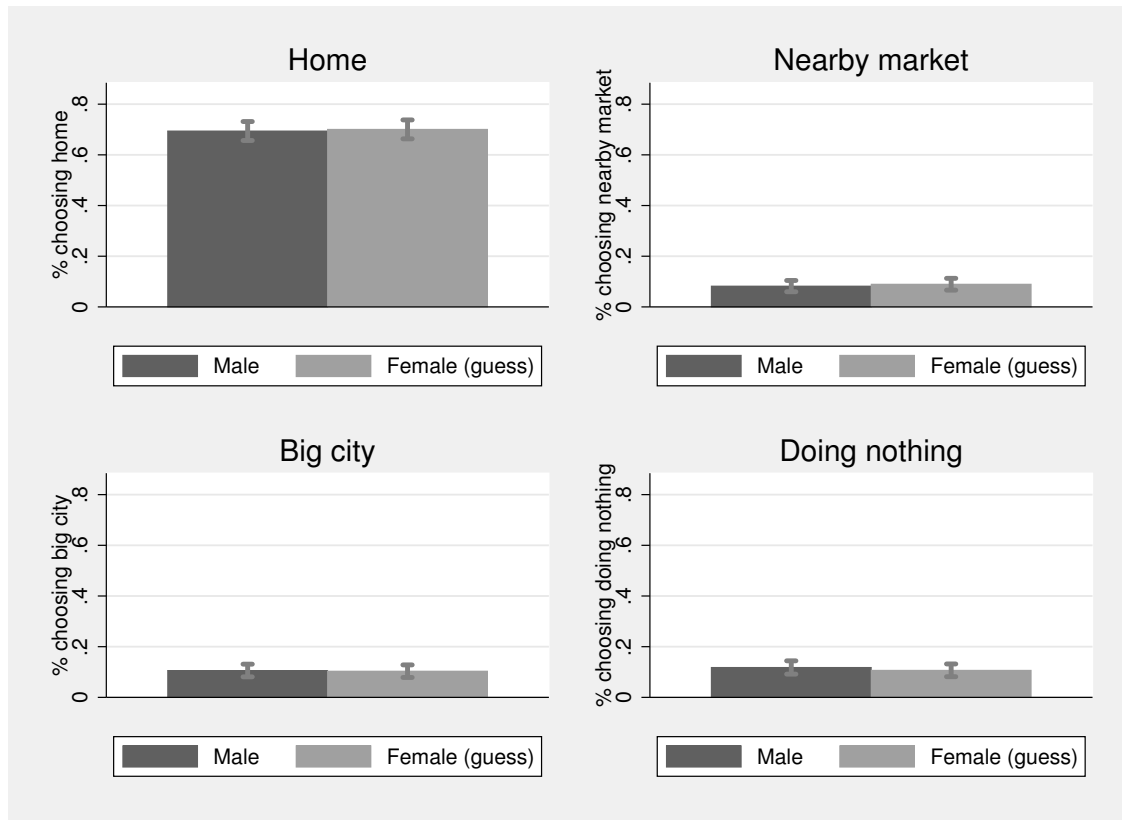
Note: *x-axis* shows the business opportunity by location (or doing nothing) that the female respondent thinks the male selected for her. 'Male' refers to the actual male responses. The *y-axis* displays the percentage of male or female respondents with the displayed preference.

cost (see figure 3.3 for average demand on knowledge or abstract reasoning questions).[10] Demand for partner's advice is significantly higher at all costs than that for an expert implying a 'home-bias' in whose advice women prefer (Appendix C.1, table 3.1).

This result is striking for two reasons. One, displaying a preference for advice from expert and male partner were not mutually exclusive. Respondents could display a demand for both. The experiment design randomized the provider and cost of advice for implementation of advice. Yet, many women (40% of the sample) did not want to ask

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[10]Figure C2 in Appendix C.1 disaggregates demand for advice by type of question. Questions on abstract reasoning were perceived to be more difficult than the knowledge questions. Demand for advice on abstract reasoning questions is slightly higher than for advice on knowledge questions. We also find that knowledge questions were twice as more likely to be answered correctly than the abstract questions.

for expert advice, even when the advice was free and non-binding; and when preferring advice from expert did not preclude preferring advice from the male partner. Two, the expert was defined as someone with expertise in the question topic or field. The gender of the expert was not revealed; neither did the advice require the respondent to meet with the expert. The implication being that advice from the expert is more likely to have the correct answer. In fact, one of the two options provided by the expert was always the correct answer. In contrast, only 32% of the male respondents provided the correct answer in their advice.[11] Women are willing to forgo advice from outsiders, even at a cost. That is, even when advice is free and may increase the likelihood of earning a reward.

We find interesting trends in the willingness to pay for advice (see Table 3.2). There is a high demand for advice from women who prefer to not set up an enterprise at all. On the other hand, demand for advice increases when business operations are further away from from home and is always higher when the advice is from the husband than from the expert. As discussed previously, the proportion of women who agree to take advice from both sources is low even when demand does not have to be mutually exclusive and, as seen in Table 3.2, decreases the further preferred business operations are from home.

Table 3.2: *Willingness to pay for advice by business preferences (females only)*

	WTP_{any}	$(WTP_{husband})$	(WTP_{expert})	(WTP_{both})
'Do nothing'	62.5%	54.9%	43.8%	36.1%
Business operations: *home*	49.3%	40.9%	25.9%	17.5%
Business operations: *nearby market*	66.7%	51.4%	35.2%	20.0%
Business operations: *big city*	63.7%	46.0%	29.0%	12.1%

Note: The columns show proportion willing to pay (*WTP*) for advice on any question from husband or expert, from the husband, from the expert and both. Each row reports the percentage demanding advice when their business preference is to 'do nothing', operate a business from 'home', from 'nearby market' or 'big city'.

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[11]Correspondingly, women who received advice containing the correct answer from male partners were 12% more likely to correctly answer the question asked; women who received advice from experts were 24% more likely to provide the correct answer.

Figure 3.3: *Female demand for advice*
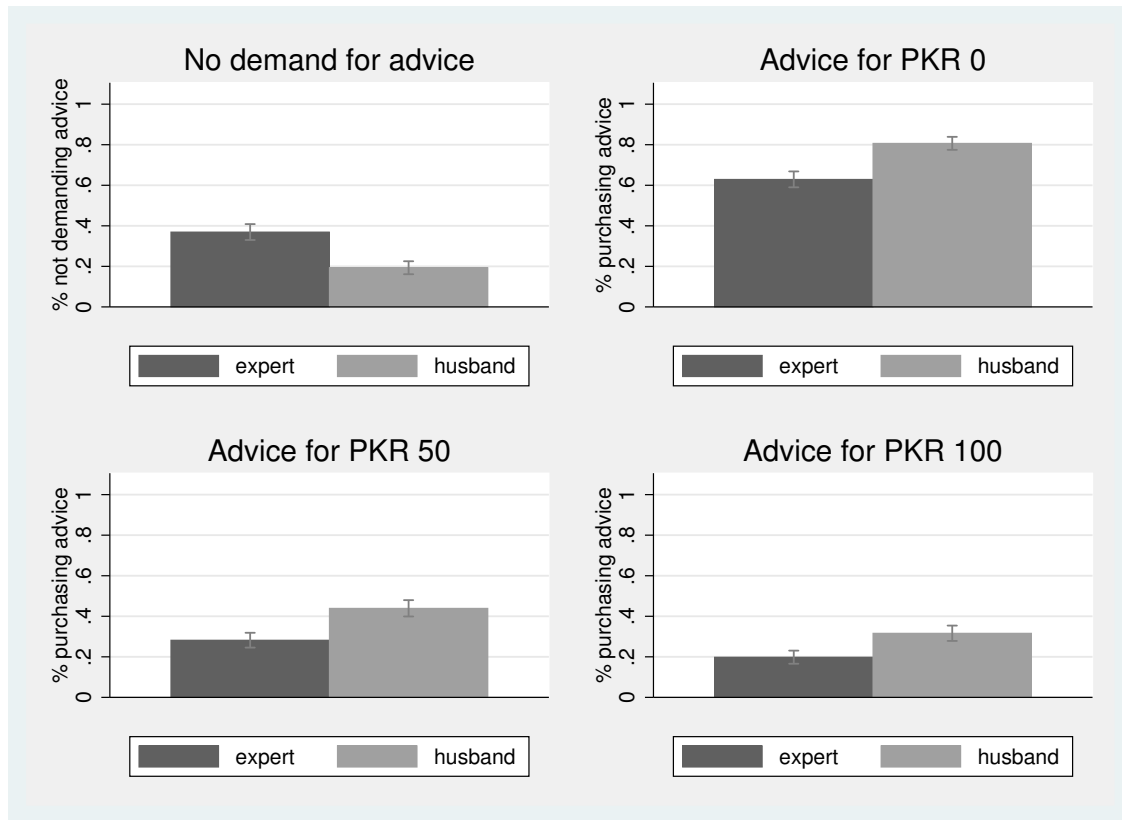
Note: Each panel shows the demand for different 'prices' of advice. *No demand for advice* is a binary variable equal to one if the respondent indicated she did not want advice at any purchase price, including 0. *Advice for 0, 50, 100* refer to the purchase price that the respondent was willing to pay for advice on either the knowledge or the abstract reasoning questions. *x-axis* shows the 'adviser'. The *y-axis* displays the percentage of female respondents who were willing to pay the given price to obtain advice.

3.3.3   Correlates of business preferences

In Table 3.3 we show results from an ordered logit regression investigating the correlates of business preferences. The dependent variable is coded to represent increasing levels of business 'location preference'. That is, *business location* is 0 if the respondent chooses 'do nothing', 1 for business operation within the home, 2 for business operations in the nearby market and 3 for business operations in the city.[12] In line with the average preferences

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[12]We control for profit levels and survey versions in all regressions. However, in regression not shown here, we find qualitatively similar results when we only use data on preferences when the profit levels increase as we move from home to the city. That is, these results are not being driven by observations

for men and women shown in figure 3.1, business preferences do not differ by gender of the respondent (column 1).

There may be several reasons for men and women to prefer that women not engage in activities that require her to frequently leave the home. There may be a stigma attached to women leaving the home and the decision to work outside the home may be vetoed by other members of the family (World Bank, 2006). However, these preferences do not differ by the level of decision making power that women have in their households (column 2), implying that the preferences we observed in the experiment are not a result of suppressed female agency. On the other hand, results show that actual experience of working outside the home may be relevant - compared to the base category of salaried workers in public or private employment, housewives have a considerable preference for the home. There is a similar trend for self-employed women, though the difference in preferences from salaried women is not statistically significant.

There is suggestive evidence from other impact evaluations that responsibilities at home can be responsible for premature closure of businesses headed by women (Banerjee et al., 2014). That is, as the primary caregiver in the household, a woman may be unable to find time away from household chores and care of family members to give to her business. To explore this channel, we look at the preferences of women who have children under five and find greater demands on their time. We find no significant differences in preferences due to such responsibilities at home (column 3).

Female mobility may be severely restricted by both social norms and a lack of safe transport options. Security concerns have been highlighted in a number of different studies looking at female enrollment in schools (Jacoby and Mansuri, 2011; Andrabi et al., 2013), in vocational training (Cheema et al., 2012) programmes and labor force participation (Field and Vyborny, 2016) in Pakistan. While we cannot comment on safety and security being one of the reasons for preferring a home-based business, we do find

recorded when home has profits than a business being operated in the nearby market or the city.

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Table 3.3: *Correlates of business preferences*

Dependent variable: *Business location*					
	(1)	(2)	(3)	(4)	(5)
Female	0.033 (0.071)				
Agency index		-0.172 (0.111)			
Has young children			-0.020 (0.188)		
WTP for advice				0.451 (0.226)**	
WTP for expert advice				-0.364 (0.258)	
ITT					0.041 (0.183)
Literate	0.426 (0.179)**	0.369 (0.198)*	0.370 (0.197)*	0.374 (0.198)*	0.378 (0.198)*
Housewife	-0.513 (0.167)***	-0.541 (0.187)***	-0.552 (0.180)***	-0.547 (0.180)***	-0.545 (0.180)***
Self employed	-0.394 (0.217)*	-0.342 (0.248)	-0.356 (0.238)	-0.333 (0.242)	-0.366 (0.250)
N	1149	564	564	564	564
Pseudo R^2	0.025	0.025	0.027	0.024	0.028

Note: Results show coefficients from an ordered logit regression with dependent variable coded as business location = 0 for doing nothing; = 1 for business operations inside the home; = 2 for business in the nearby market; = 3 for business operations in the city. Columns (2) - (5) show results for women only. *ITT* is a dummy variable that is equal to one if the female respondent belonged to the RCT treatment sample in 2014. *Agency index* is created using Anderson (2008) from variables that measure if the respondent can make household decisions (clothing, footwear, medical, recreation, social visits, joining credit groups, purchases for self, purchases for others, marriage, investment) and feels confident in her ability to support the household (for 4 weeks) on her own. *WTP* is a dummy if the respondent is willing to pay PKR 50 or more for advice. All regressions include controls for female respondent age and marital status, household assets and the version of survey administered at endline. All errors clustered at the individual level. $***p < 0.01, **p < 0.05, *p < 0.1$.

that the 'home-bias' in business location preference extends even in spheres of decision making that do not require venturing outside the home - that is, the decision to take advice from others. The respondent is not required to venture outside the home to obtain advice from an expert in the experiment. Results are shown in column (4) of table 3.3. The coefficient on willingness to pay for advice is positive and significant implying that the demand for advice on average is likely to be higher among women who would prefer to operate a business outside the home. That is, individuals who prefer a business at home (or not at all), are also more likely to show a low demand for advice. Taken together, business and advice preferences can help explain why female-run enterprises tend to remain at a smaller scale that can be operated within the home. Home-based businesses that are unwilling to learn from peers are likely to experience low growth and less likely to survive over time.

Finally, we investigate if preferences can be influenced by external circumstances. Specifically, we look at the impact of access to finance on male and female preferences. Random variation in access to finance provides half of our sample, the *Intent to treat* or *ITT* sample, with an option to contravene gender prescriptions through investment in or expansion of the business. We test if an intervention designed to encourage female enterprise can change these preferences. Table 3.3 shows an insignificant impact of finance on business preferences held by both men and women from treated households (column 5).[13] Static bias for home-based enterprises and the inability of finance to counter *home bias* can explain why recent studies have found finance to have an insignificant impact on female-run business creation or growth (see, for instance, (Duflo et al., 2013; Angelucci et al., 2015; Banerjee et al., 2014; Crepon et al., 2015; Tarozzi et al., 2014; Said et al., 2018)).

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[13]Table C4 in the Appendix shows the intervention has no significant effect on the demand for advice.

Robustness checks

A small proportion of the male (12.0%) and female (13.1%) sample prefer that the female should not run a business at all. In Table C2 in the Appendix, we present results if restrict the sample to those who prefer to have a business; that is, we drop those who prefer to 'do nothing' and then test if preferences correlate to gender, agency and advice. Second, we collapse preferences for business location into two larger groups - at home and outside home, and run a logit regression to estimate equations 3.2 and 3.3 (Table C3 in the Appendix). Results from both specifications are qualitatively similar to the results in Table 3.3, except that the coefficient for women is positive and marginally significant. Restricting results to only business 'location' (without the option to not operate a business), women are marginally more likely than men to prefer a business for themselves outside the home. However, these results are only significant at the 10% level (p = 0.099 and p = 0.082 in Tables C2 and C3, respectively).

3.4 Conclusions

We conduct two experiments to elicit preference for business and advice in a sample of microfinance borrowers. Our results provide us with 4 key insights: One, we see a significant home-bias in the preferred location of business. Both men and women in our sample would prefer that the female not venture too far from the home. These preferences do not vary by decision making power in the household or responsibilities that women may have at home and imply a defined set of socio-cultural norms that frown upon women setting outside the home. In addition, male and female preferences largely coincide, despite female preferences being anonymous. Under the gender identity framework of Akerlof and Kranton (2000), our findings suggest that women in our sample have internalized gender norms.

Second, we find that microcredit is unable to influence these norms, providing a

possible reason for the lack of an effect on business outcomes measured in recent impact evaluations (Angelucci et al., 2015; Banerjee et al., 2014; Said et al., 2018).

Third, we find evidence of home bias in even the individuals women would like to approach for advice. Women prefer to obtain advice from their male partners, despite higher instrumental value from advice from a field expert.

Fourth, home bias in preference for advice and business are correlated. That is, home-based female business women may prefer to keep the scale of her business small by not fully exploiting the supplier networks, client base and employee market outside the vicinity of her home. In addition, she is unlikely to take advantage of experience and advice of peers or experts outside the household.

Taken together, these results provide important insights into why many microcredit impact evaluations have found small or insignificant effects on outcomes of female run businesses. Women appear to prefer to not expand her business to avoid venturing outside the household. They may also be reluctant to obtain advice, especially from people outside her household, even if that advice can lead to immediate gains. For instance, a reluctance to obtain advice from experienced entrepreneurs could potentially limit growth of a business. Our results also imply that development programs need to go beyond providing only finance and business knowledge training, for instance, by marketing how women can provide a meaningful contribution to the household income if they expand their business. Given the apparent internalization of gender norms, programs that focus on cooperative rather than confrontational household dynamics are likely to see larger effect.

There is an important caveat to these findings: our experiments, though incentivized, rely on preferences for a hypothetical business that the can be set up if access to finance is not an issue. We do not have data that can test out if these preferences are acted upon. The loans provided in the RCT were small in size and may have been insufficient on its own to sustain business or to have a long term impact on long-held preferences.

Larger or a sustained line of credit may indeed have the power to change preferences and encourage business growth even if it means leaving the home.

This study adds to the existing literature exploring low growth in female enterprise. Where other studies have explored finance (Banerjee et al., 2015; Ginè and Mansuri, 2017), technical skills (Blattman et al., 2015) and a need to hide income source from the household (de Mel et al., 2012; Fiala, 2015), results show that gender identity and internalised norms can also constrain the growth of businesses run by women. We contribute to the literature on gender identity by exploring another decision where identity may undermine development policies attempting to empower women economically. For instance, Bertrand et al. (2015) find that women in Brazil are less likely to participate in the labour force because they are likely to earn more than their male partners. This contradicts the gender norm that prescribes men to be the primary income earners. Similarly, Mueller (2016) shows that female politicians in India are unlikely to make pro-female policies choices and may be proxies of male representatives. Finally, similar to existing findings on advice-taking and social learning (Barham et al., 2017; Stone and Zafar, 2014; Weizsacker, 2008), we find advice is undervalued. We add to the literature by differentiating the identity of adviser and show that the demand for advice is lower for an individual who does not belong to the household even if forgoing advice comes at an economic cost.

Conclusions

Female entrepreneurship in Pakistan is among the lowest in the world. Access to finance and social constraints are often listed as the main obstacles faced by women from low income households in setting up or running their own business (Qasim and Mohindra, 2017). This dissertation investigates the roles that access finance, household dynamics and personal preferences can play in women setting up and operating a business.

The first chapter uses data from a microcredit randomised control trial conducted in Punjab, Pakistan. We find access to finance has a positive and significant effect on the likelihood that the female applicant sets up a new business. This effect is larger than found in other studies that do not target new businesses (Banerjee et al., 2015) or women (Ginè and Mansuri, 2017). However, similar to results from other impact evaluations, the increase in the number of businesses is transitory, with many businesses not lasting beyond a year.

Second, women are more likely to set up a business if it there are no other existing businesses in their household, implying that women either borrow for their household members or that the loan funds they have may be diverted to other uses by household members. Related to this, treated women with greater decision making in the household are more likely to have a business one year after receiving the loan. Third, while treated women were more likely to set up a business, the loan had no transformative effects on other individual and household level outcomes.

The second chapter uses data from incentivised lab-in-the-field experiments with a sub-

sample of RCT participants to shed light on household dynamics. We vary information available on resources available to participants and find that women are less willing to share resources (such as loan funds or income from a business) with male household members when they feel entitled to these resources and if they expect household members to appropriate their earnings. We take opportunistic behavior to imply a pent up demand for agency. Indeed, women in our sample with greater decision making power in the household are less likely to act opportunistically. Further, female participants who received a microfinance product intended to improve decision making power in the household, report higher levels of agency one year later. These results highlight that microfinance interventions aimed at improving outcomes for female borrowers should also target intra-household constraints on female decision making power, in addition to technical knowledge for business creation targeted in the present RCT.

The third chapter analyzes participant decisions in incentivised questions administered in a follow-up survey administered two years after the treatment loan was first disbursed. We find that both men and women in our sample prefer that the woman set up or operate a business from her home. These preferences are not a function of responsibilities or decision-making power that a female participant has at home, implying a set of well defined gender norms that can affect business decisions. The 'home bias' extends to other spheres - women are reluctant to obtain advice from experts outside the household, despite high instrumental value. Microcredit is unable to influence these norms, providing us with a useful framework for thinking about the limited impact of microfinance on the creation and growth of businesses by women.

These findings are highly pertinent in a context where both the state and private providers of microfinance have policies for encouraging enterprise by women to provide income and employment to individuals from low-income households. They provide important insights into why many microcredit impact evaluations have found small or insignificant effects on outcomes of female run businesses. Results also imply that

development programs need to go beyond providing just finance through, for instance, social awareness programs that make it safer for women to go out of their homes and legislation that provides women a safe social environment to operate in. Household norms that dictate the degree of autonomy provided to women may be more difficult for policymakers to influence and take longer to change. However, given the apparent internalization of gender norms, programs that focus on cooperative rather than confrontational household dynamics and highlight the income-generating potential of women are likely to see larger effects.

References

Abbink, K., Islam, A., and Nguyen, C. (2016). Whose voice matters? an experimental examination of women empowerment in microfinance. *GDRI Working Paper*.

Afzal, U., d'Adda, G., Fafchamps, M., Quinn, S., and Said, F. (2017). Two sides of the same rupee? comparing demand for microcredit and microsaving in a framed field experiment in rural pakistan. *Economic Journal*.

Afzal, U., d'Adda, G., Fafchamps, M., and Said, F. (2018). Intrahousehold consumption allocation and demand for agency: A triple experimental investigation. Working Paper 24977, National Bureau of Economic Research.

Aghion, A. B. and Morduch, J. (2005). *The Economics of Microfinance*. MIT Press.

Akerlof, G. and Kranton, R. E. (2000). Economics and identity. *The Quarterly Journal of Economics*, 115(3):715–753.

Alan, S. and Ertac, S. (2018). Mitigating the gender gap in the willingness to compete: Evidence from a randomized field experiment. Unpublished manuscript.

Ali, P. A. and Gavino, M. I. B. (2008). Violence against women in Pakistan: A framework for analysis. *Journal of Pakistan Medical Association*, 54:198 – 203.

Almas, I., Armand, A., Attanasio, O., and Carneiro, P. (2015). Measuring and changing control: Women's empowerment and targeted transfers. *NBER Working Paper Series No. 21717*.

Anderson, M. L. (2008). Multiple Inference and Gender Differences in the Effects of Early ntervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects. *Journal of the American statistical Association*, 103(484).

Anderson, M. L. (2012). Multiple inference and gender differences in the effects of early intervention: A reevaluation of the abecedarian, perry preschool, and early training projects. *Journal of the American statistical Association*.

Andrabi, T., Das, J., and Khwaja, A. (2013). Students today, teachers tomorrow: Identifying constraints on the provision of education. *Journal of Public Economics*, 100(C):1–14.

Angelucci, M. (2008). Love on the Rocks: Domestic violence and alchohol abuse in rural Mexico. *The B.E. Journal of Economic Analysis and Policy*, 8(1).

Angelucci, M., Karlan, D., and Zinman, J. (2015). Microcredit impacts: Evidence from a randomized microcredit program placement experiment by Compartamos Banco. *American Economic Journal: Applied Economics*, 7(1):151–182.

Ashraf, N. (2009). Spousal control and intra-household decision making: An experimental study in the Philippines. *American Economic Review*, 99(4):1245–1277.

Ashraf, N., Karlan, D., and Yin, W. (2010). Female empowerment: Impact of a commitment savings product in the Philippines. *World Development*, 38(3):333–344.

Attanasio, O., Augsburg, B., Haas, R. D., Fitzsimons, E., and Harmgart, H. (2015). The impacts of microfinance: Evidence from joint-liability lending in Mongolia. *American Economic Journal: Applied Economics*, 7(1):90–122.

Augsburg, B., Haas, D., R., H., H., and Meghir, C. (2015). The impacts of microcredit: Evidence from Bosnia and Herzegovina. *American Economic Journal: Applied Economics*, 7(1):183–202.

Bandiera, O., Buehren, N., Burgess, R., Goldstein, M., Gulesci, S., Rasul, I., and Suleiman, M. (2014). Women's empowerment in action: Evidence from a randomized control trial in Africa. *CSAE Working Paper WPS / 2014-30.*

Bandiera, O., Burgess, R., Das, N., Gulesci, S., Rasul, I., Sulaiman, M., and Rosenzweig, M. (2013). *Can basic entrepreneurship transform the economic lives of the poor?* Economic Organisation and Public Policy Discussion Papers No. 043.

Banerjee, A., Duflo, E., and Hornbeck, R. (2014). (measured) profit is not welfare: Evidence from an experiment on bundling microcredit and insurance. Working Paper 20477, National Bureau of Economic Research.

Banerjee, A., Karlan, D., and Zinman, J. (2015). Six randomized evaluations of microcredit: Introduction and further steps. *American Economic Journal: Applied Economics*, 7(1):1–21.

Barham, B., Chavas, J., Fitz, D., and Schechter, L. (2017). Responsiveness to advice, learning ability, and technology adoption: An economic experiment with farmers. Unpublished manuscript.

Bari, F. and Pal, M. S. (2000). Women in Pakistan. Technical Report July, Asian Development Bank Programs Department and the Office of Envrionment and Social Development.

Barr, A., Dekker, M., Janssens, W., Kebede, B., and Kramer, B. (2017). Cooperation in polygynous households. IFPRI Discussion Paper 1625, International Food Policy Research Institute (IFPRI).

Barr, A. and Genicot, G. (2008). Risk sharing, commitment, and information: An experimental analysis. *Journal of the European Economic Association*, 6(6):1151–1185.

Benjamini, Y., Krieger, A. M., and Yekutieli, D. (2006). Adaptive Linear Step-up Procedures that Control the False Discovery Rate. *Biometrika*, 93(3):491–507.

Berge, L. I. O., Bjorvatn, K., and Tungodden, B. (2014). Human and financial capital for microenterprise development: Evidence from a field and lab experiment. *Management Science*, 61(4):707–722.

Bernhardt, A., Field, E., Pande, R., and Rigol, N. (2017). Household matters: Revisiting the returns to capital among female micro-entrepreneurs. Technical report, National Bureau of Economic Research.

Bertrand, M., Kamenica, E., and Pan, J. (2015). Gender identity and relative income within households. *The Quarterly Journal of Economics*, 130(2):571–614.

Binswanger, H. P. (1980). Attitudes toward risk: Experimental measurement in rural India. *American Journal of Agricultural Economics*, 62(3):395–407.

Blattman, C. C. U., Green, E. P., Jamison, J. C., Lehmann, M. C., and Annan, J. (2015). *The Returns to Microenterprise Support Among the Ultra-Poor: A field experiment in post-war Uganda*. NBER Working Paper Series No. 21310.

Bloom, N. and Van Reenan, J. (2010). Why do management practices differ acrodd firms and countries? *Journal of Economic Perspectives*, 24(1):203–224.

Bobonis, G. J. (2008). Is the allocation of resources within the household efficient? New evidence from a randomized experiment. *Journal of Political Economy*, 117(3):453–503.

Boltz, M., Marazyan, K., and Villar, P. (2015). Income hiding and informal redistribution: A lab-in-the-field experiment in Senegal. *Job Market Paper*.

Bruhn, M., Karlan, D., and Schoar, A. (2010). What capital is missing in developing countries? *American Economic Review Papers and Proceedings*.

Bulte, E., Lensink, R., and Vu, N. (2016). Gender training and female empowerment: Experimental evidence from vietnam. *Economics Letters*.

Burns, J., Lucia, C., and Eliana, L. (2015). Interaction, prejudice and performance. evidence from south africa. *BREAD Working Paper*.

Bursztyn, L., Fujiwara, T., and Pallais, A. (2017). 'acting wife': Marriage market incentives and labor market investments. Working paper.

Cameron, L. and Shah, M. (2015). Risk-taking behavior in the wake of natural disasters. *Journal of Human Resources*, 50(2):484–515.

Campbell, H. (2012). Gender empowerment in microfinance: How SHGs in India exemplify the institutional potential. *Jackson School Journal of International Studies Policy Brief*, 3(1):6–18.

Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., and Mensmann, M. (2017). Teaching personal initiative beats traditional training in boosting small business in west africa. *Science*, 357(6357):1287–1290.

Carlsson, F., He, H., Martinsson, P., Qin, P., and Sutter, M. (2012). Household decision making in rural China: Using experiments to estimate the influences of spouses. *Journal of Economic Behavior and Organization*, 84(2):525–536.

Castilla, C. (2014). *What's yours is mine, and what's mine is mine: Bargaining power and income concealing between spouses in India*. Unpublished Manuscript.

Castilla, C. (2015). Trust and reciprocity between spouses in india. *The American Economic Review*, 105(5):621–624.

Castilla, C. and Walker, T. (2013). Is ignorance bliss? Gender differences in the effect of asymmetric information on intrahousehold allocation. *American Economic Review: Papers and Proceedings*, 103(3):263–268.

Cheema, A., Khwaja, A., Naseer, F., and Shapiro, J. (2012). PEOP phase 1 baseline household survey report. Mimeo, Center for Economic Research in Pakistan.

Cherry, T. L., Frykblom, P., and Shogren, J. F. (2002). Hardnose the dictator. *American Economic Review*, 92:1218–1221.

Chiappori, P. A. (1997). Introducing household production in collective models of labor supply. *Journal of Political Economy*, 105(1):191–209.

Codazzi, K., Pero, V., and Sant'Anna, A. (2017). Social norms and female labour force participation in Brazil. Technical report, IE-UFRJ Discussion Paper TD 013 - 2017.

Cole, S. and Fernando, A. (2012). Mobile'izing agricultural advice: Technology adoption, diffusion and sustainability. Technical report, Harvard Business School Working Paper No. 13-047.

Crepon, B., Devoto, F., Duflo, E., and Parienté, W. (2015). Estimating the impact of microcredit on those who take it up: Evidence from a randomized experiment in morocco. *American Economic Journal: Applied Economics*, 7(1):123–150.

Dahal, M. and Fiala, N. (2018). What do we know about the impact of microfinance? The problems of power and precision. Ruhr Economic Papers 756, RWI - Leibniz-Institut fÃijr Wirtschaftsforschung, Ruhr-University Bochum, TU Dortmund University, University of Duisburg-Essen.

Dana, J., Weber, R. A., and Kuang, J. X. (2007). Exploiting moral wiggle room: experiments demonstrating an illusory preference for fairness. *Economic Theory*, 33(1):67–80.

Dasgupta, U. and Mani, S. (2015). Only mine or all ours: Do stronger entitlements affect altruistic choices in the household. *World Development*, 67(C):363–375.

de Mel, S., M., D., and Woodruff, C. (2009). Are women more credit constrained? Experimental evidence on gender and microenterprise returns. *American Economic Journal: Applied Economics*, 1(3):1–32.

de Mel, S., M., D., and Woodruff, C. (2012). One-time transfers of cash or capital have long-lasting effects on microenterprises in Sri Lanka. *Science*, 335:962–966.

Dhar, D., Jain, T., and Jayachandran, S. (2015). Intergenerational transmission of gender attitudes: Evidence from india. Working Paper 21429, National Bureau of Economic Research.

Duflo, E. (2003). Grandmothers and granddaughters: Old-age pensions and intrahousehold allocation in South Africa. *World Bank Economic Review*, 17:1–25.

Duflo, E., Banerjee, A., Glennerster, R., and Kinnan, C. G. (2013). The miracle of microfinance? Evidence from a randomized evaluation. *NBER Working Paper Series No. 18950*.

Duflo, E., Glennerster, R., and Kremer, M. (2008). *Using Randomization in Development Economics Research: A Toolkit*, volume 4. North Holland, Amsterdam and New York. This file is the version posted by the Centre for Economic Policy Research, CEPR Discussion Papers: 6059, 2007.

Duflo, E. and Udry, C. (2004). Intrahousehold resource allocation in Cote D'ivoire: Social norms, separate accounts and consumption choices. *NBER Working Paper Series No. 10498*.

Fafchamps, M., Kebede, B., and Quisumbing, A. R. (2009). Intrahousehold welfare in rural Ethiopia. *Oxford Bulletin of Economics and Statistics*, 71(4):567–599.

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.

Fahr, R. and Irlenbusch, B. (2000). Fairness as a constraint on trust in reciprocity: Earned property rights in a reciprocal exchange experiment. *Economic Letters*, 66(3):275 – 282.

Fiala, N. (2015). Business is tough but family is worse: The role of family constraints on microenterprise development in Uganda. *Unpiblished Manuscript*.

Field, E., Jayachandran, S., Pande, R., and Rigol, N. (2016). Friendship at work: Can peer effects catalyze female entrepreneurship? *American Economic Journal: Economic Policy*, 8(2):125–53.

Field, E., Pande, R., Papp, J., and Rigol, N. (2013). Does the classic microfinance model discourage entrepreneurship among the poor? Experimental evidence from India. *American Economic Review*, 103(6):2196–2226.

Field, E. and Vyborny, K. (2016). Female labor force participation in Asia: Pakistan country study. Technical report, Asian Development Bank.

Fischer, G. (2011). Contract structure, risk sharing and investment choice. *Economic Organisation and Public Policy Programme Discussion Paper Series No. 2011/23*.

Fisman, R., Jakiela, P., and Kariv, S. (2015). How did distributional preferences change during the great recession? *Journal of Public Economics*, 128:84–95.

Garikipati, S. (2013). Microcredit and women's empowerment: Have we been looking at the wrong indicators? *Oxford Development Studies*, 41(sup1):S53–S75.

Ghalib, K., A., M., I., Imai, S., and K. (2011). *The impact of micro finance and its role in easing poverty of rural households: Estimations from Pakistan*. Kobe University Discussion Paper Series No 2011-28.

Ginè, X. and Mansuri, G. (2017). *Money or Managment? A Field Experiment on Constraints to Entrepreneurship in Rural Pakistan*. The World Bank Policy Research Working Paper Series, (September).

Goldstein, M. and Udry, C. (1999). *Gender and land resource management in southern Ghana*. University of California.

Golman, R. and Loewenstein, G. (2015). An information-gap framework for capturing preferences about uncertainty. Proceedings of the Fifteenth Conference on Theoretical Aspects of Rationality and Knowledge, Pittsburgh.

Grasmuck, S. and Espinal, R. (2000). Market success or female autonomy? Income, ideology, and empowerment among microentrepreneurs in the Dominican Republic. *Gender and Society*, 14(2):231–255.

Haushofer, J. and Shapiro, J. (2016). The short-term impact of unconditional cash transfers to the poor: Experimental evidence from Kenya. *The Quarterly Journal of Economics*, 131(4):1973–2042.

Hoel, J. B. (2015). Heterogeneous households: A within-subject test of asymmetric information between spouses in Kenya. *Journal of Economic Behavior and Organization*, 118:123–135.

Hoel, J. B., Hidrobo, M., Bernard, T., and Ashour, M. (2017). Productive efficiency in dairy production and cooperation between spouses: Evidence from senegal. *Unpublished Manuscript*.

Jacoby, H. G. and Mansuri, G. (2011). Crossing boundaries: gender, caste and schooling in rural Pakistan. Technical report, World Bank Policy Research Working Paper Series.

Jakiela, P. (2015). How fair shares compare: Experimental evidence from two cultures. *Journal of Economic Behavior and Organisation*, 118(October):40–54.

Jakiela, P. and Ozier, O. (2012). Does Africa need a rotten kin theore Experimental evidence from village economies. *World Bank Policy Research Working Paper No. 6085*.

Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change*, 30:435–464.

Kabeer, N. (2001). Conflicts over credit: Re-evaluating the empowerment potential of loans to women in rural Bangladesh. *World Development*, 29(1):63–84.

Karlan, D. and Zinman, J. (2013). Long-run price elasticities of demand for credit: Evidence from a countrywide field experiment in Mexico. *NBER Working Paper No*, page 19106.

Kazianga, H. and Wahhaj, Z. (2015). Norms of allocation within nuclear and extended family households. *2015 AAEA and WAEA Joint Annual Meeting, Paper No. 205534*.

Kebede, B., Tarazona, M., Munro, A., and Verschoor, A. (2014). Intra-household efficiency: An experimental study from ethiopia. *Journal of African Economies*, 23(1):105–150.

Krupka, E. L. and Weber, R. A. (2013). Identifying social norms using coordination games: Why does dictator game sharing vary? *Journal of the European Economic Association*, 11:495–524.

Lee, D. S. (2009). Training, Wages, and Sample Selection: Estimating Sharp Bounds on Treatment Effects. *The Review of Economic Studies*, 76(3):1071–1102.

List, J. A. (2007). On the interpretation of giving in dictator games. *Journal of Political Economy*, 115:482–493.

List, J. A. (2009). Social preferences: Some thoughts from the field. *Annu. Rev. Econ.*, 1(1):563–579.

Lundberg, S. and Pollak, R. A. (1996). Bargaining and distribution in marriage. *Journal of Economic Perspectives*, 10(4):139–158.

Lundberg, S. and Pollak, R. A. (2001). Efficiency in marriage. Working Paper 8642, National Bureau of Economic Research.

Lybbert, T. J. and Wydick, B. (2016). Hope as aspirations, agency, and pathways: Poverty dynamics and microfinance in oaxaca, mexico. Working Paper 22661, National Bureau of Economic Research.

Maldonado, J. H. (2005). The Influence Of Microfinance On The Education Decisions Of Rural Households: Evidence From Bolivia. Documentes Cede 003606, Universidad de Los Andes-Cede.

Mani, A. (2013). Yours or ours? The efficiency of household investment decisions: An experimental approach. *Unpublished Manuscript*.

McKenzie, D. and Paffhausen, A. L. (2017). Small firm detah in developing countries. *CEPR Discussion Paper Series DP12401*.

McKenzie, D. and Woodruff, C. (2013). What are we learning from business training and entrepreneurship evaluations around the developing world? *The World Bank Research Observer*, 29:48–82.

Meager, R. (2018). Understanding the average impact of microcredit expansions: a Bayesian hierarchical analysis of seven randomized experiments. *American Economic Journal: Applied Economics*.

Memon, A. S., Naz, S., Abass, H., Zahid, J., Tabbasum, R., and Zeshan, M. (2014). Alif Ailaan Pakistan District Education Rankings. Technical report, Alif Ailaan in collaboration with Social Development Policy Institute.

Mueller, U. (2016). Lost in representation? feminist identity economics and women's agency in india's local governments. *Feminist Economics*, 22(1):158–182.

Nation (2017). Is microfinance succeeding in pakistan? Technical report, Nation.

Pitt, M., Khandker, S., and Cartwright, J. (2006). Empowering women with microfinance: Evidence from Bangladesh. *Economic Development and Cultural Change*, pages 791–831.

Qasim, Q. and Mohindra, K. (2017). Catalyzing women's growth entrepreneurship in pakistan's cities: Data from karachi and lahore in pakistan development update: Managing risks for sustained growth. Technical report, The World Bank.

Rabbani, F., Qureshi, F., and Rizvi, N. (2008). Perspectives on domestic violence: Case study from Karachi, Pakistan. *East Mediterranean Health Journal*, 14:415 – 426.

Safavian, M. and Haq, A. (2013). *Are Pakistan's women entrepreneurs being served by the microfinance sector?* Washington DC: World Bank.

Said, F., Mahmud, M., and Chaudhry, A. (2018). The impact of access to finance on generating enterprise by women. Unpublished manuscript.

Salman, A. (2008). Evaluating the impact of microcredit on women's empowerment in Pakistan. *CREB Working Paper Series No 03/09*.

Schaner, S. (2015). Do opposites detract? Intrahousehold preference heterogeneity and inefficient strategic savings. *American Economic Journal: Applied Economics*, 7(2):135–174.

Setboonsarng, S. and Parpiev, Z. (2008). *Micro finance and Milleninum development goals in Pakistan: Impact assessment using propensity score matching*. ADB Institute Discussion Paper No. 104.

Seymour, G. and Floro, M. (2016). Identity, household work, and subjective well-being among rural women in Bangladesh. Technical report, IFPRI Discussion Paper 01580.

Stone, D. F. and Zafar, B. (2014). Do we follow others when we should outside the lab? evidence from the ap top 25. *Journal of Risk and Uncertainty*, 49(1):73–102.

Tarozzi, A., Desai, J., and Johnson, K. (2014). The impacts of microcredit: Evidence from Ethiopia. *American Economic Journal: Applied Economics*, 7(1):54–89.

Udry, C. (1996). Gender, agricultural production, and the theory of the household. *Journal of Political Economy*, 104(5):1010–1046.

Valdivia, M. (2014). Business training plus for female entrepreneurship? Short and medium-term experimental evidence from Peru. *Journal of Development Economics*, 113:33–51.

Verschoor, A., Kebede, B., Munro, A., and Tarazona, M. (2017). Spousal control and efficiency of intra-household decision making: Experiments among married couples in india, ethiopia and nigeria. GRIPS Discussion Papers 16-31, National Graduate Institute for Policy Studies.

Weber, O. and Ahmad, A. (2014). Empowerment through microfinance: The relation between loan cycle and level of empowerment. *World Development*, 62:75 – 87.

Weizsacker, G. (2008). Do we follow others when we should? A simple test of rational expectations. Technical report, Working Paper. ESRC Centre for Economic Learning and Social Evolution, University College London, London, UK.

World Bank (2006). Women's work and movement into the public sphere. Technical report, World Bank.

Yoong, J., Rabinovich, L., and Diepeveen, S. (2012). *The impact of economic resource transfers to women versus men: A systematic review*. Technical report. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Zaman, R. M., Stewart, S. M., and Zaman, T. R. (2006). Pakistan: culture, community, and familial obligations in a Muslim society. In Georgas, J., Berry, J. W., De Vijver, F. R. V., Kagitcibasi, C., and Poortinga, Y. H., editors, *Families a cross cultures: A 30 nation psychological study*, pages 427–434. Cambridge University Press, Cambridge.

Appendix A

Appendix to Chapter 1

A.1 Tables

The following table describes how each variable was constructed.

Table A1: *Variable construction*

VARIABLE	DEFINITION	SOURCE
Treatment$_i$	A dummy variable for whether individual i was offered the product t.	Individual contract offers.
Family 1: Demographics		
Age	The age of individual i (in complete years).	Baseline questionnaire (Q.A1).
Married	A dummy variable for whether individual i is currently married.	Baseline questionnaire (Q.A3).
Literate	A dummy variable for whether individual i assess that she can read and write.	Baseline questionnaire (Q.A5).
Children	A continuous variable for the number of children in the household to which individual i belongs.	Baseline questionnaire (Q.A1); variable coded to count the number of individuals aged 16 or younger in the household.

Dependency ratio	The dependency ratio of the household to which individual *i* belongs.	Baseline questionnaire (Q.A1); variable coded as the ratio of total dependents (aged 16 or younger or 65 and older) to total working age (between 17 and 64 years of age) members in the household.

Family 2: Household occupation and Work Experience

Self employed	Individual *i* is currently self employed i.e has a business.	Baseline questionnaire (Q.A6).
Employee in the past	A dummy variable for whether individual *i* has worked as a paid employee in the past.	Baseline questionnaire (Q.F1).
Business in the past	A dummy variable for whether individual *i* has owned a business in the past.	Baseline questionnaire (Q.F1).
Household has existing business	A dummy variable for whether household members (other than individual *i'*) currently have a business.	Baseline questionnaire (Q.A4 and Q.A6).
Mother ever had a business	A dummy variable for whether individual *i*'s mother ever owned a business.	Midline questionnaire (Q.H8).
Family ever had a business	A dummy variable for whether individual *i*'s parents, siblings or husband ever owned a business.	Midline questionnaire (Q.H8).

Family 3: Household assets and income

Monthly household expenditure	Household expenditure in an average month (PKR).	Baseline questionnaire (Q.BE1); variable coded by summing up individual expenditure items in BE1.
Home owner	A dummy variable for whether someone in the household owns the household home.	Baseline questionnaire (Q.BA4).
Asset index	An index created for the assets owned by the household using Principle Component Analysis. Survey records if household has the following: utilities, TV, radio, internet, cable, mobile phone, fridge, freezer, microwave, AC, washing machine, sewing machine and iron	Baseline questionnaire (Q.BA5).

Family 4: Agency and autonomy in decision making

Confidence	A dummy variable for whether individual i is confident she can financially support her family for 4 weeks.	Baseline questionnaire (Q.C5).
Empowerment index	An index that measures if individual i can make decisions (clothing, footwear, medical, recreation, visits, joining credit groups, purchases for self or others, investment, marriage) on her own using the Principle Component Analysis.	Baseline questionnaire (Q.C4 and Q.C11).
Agency index	Inverse variance-covariance index (Anderson, 2008) created out of Confidence and Employment Index variables.	Baseline questionnaire (Q.C4, Q.C5 and Q.C11)
Allowed to work	A dummy variable for whether individual i feels household members will allow her to look for work.	Baseline questionnaire (Q.C8).

Family 5: Access to formal or informal finance

Bank account	A dummy variable for whether someone in the household has a bank account.	Baseline questionnaire (Q.E10).
Took loans in last year	A dummy variable for whether household members took out a new loan in the last one year, other than the treatment product.	Baseline questionnaire (Q.E1a).
Insurance	A dummy variable for whether someone in the household has insurance	Midline questionnaire (Q.E11).
ATM	A dummy variable for whether someone in the household has an ATM card.	Midline questionnaire (Q.E10b)

Family 6: Business status

Set up business	A dummy variable for individual i has set up a new business since receiving treatment product.	Midline questionnaire (Q.G1, Q.G2 and Q.G18); coded by calculating if a new business was set after the treatment was offered.
Business shut down	A dummy variable for if a business set up by individual i since baseline has shut down.	Midline questionnaire (Q.G18).

Family 7: Business performance

Business start up costs	A continuous variable measuring the start up costs of new business.	Midline questionnaire (Q.G11).
Business assets	A continuous variable measuring the current value of business assets.	Midline questionnaire (Q.G13).

Business average monthly expenditure	A continuous variable measuring average monthly expenditure of the new business.	Midline questionnaire (Q.G14).
Business average monthly revenue	A continuous variable measuring average monthly revenue from the new business.	Midline questionnaire (Q.G15).
Business average monthly profits (1)	A continuous variable measuring average monthly profit earned by the new business.	Midline questionnaire (Q.G14 and Q.G15); coded as the difference between monthly total business revenue and expenditure.
Business average monthly profits (2)	A continuous variable measuring average monthly profit earned by the new business.	Midline questionnaire (Q.G16); as reported by the respondent.

Family 8: Numeracy and other skills

Recalls training	A dummy variables for if individual i recalls the training one year later.	Midline questionnaire (Q.J1).
Basic maths	The number of basic mathematical questions answered correctly by individual i.	Midline questionnaire (Q.H4-6); coded as the total number of correct answers.
Digit span level	The highest level reached in the digit span questions by individual i.	Midline questionnaire (Q.H9); coded as the highest level answered correctly before making repeating incorrectly.
Basic accounting	The number of basic accounting questions answered correctly by individual i.	Midline questionnaire (Q.H10)
Basic finance	The number of basic financial questions answered correctly by individual i.	Endline questionnaire (Q.BE6).

Family 9: Outlook and self perception

Positive business outlook	A dummy variable for if individual i has a positive outlook about her business.	Midline questionnaire (Q.H10a); coded as 1 if the respondent perceives the business to be bigger than now in the future.
Positive economic outlook	A dummy variable for if individual i has a positive outlook about the economic conditions in which the business operates.	Midline questionnaire (Q.H10b); coded as 1 if the respondent perceives economic situation to be improve in the future.
Planner	A dummy variable for if individual i assess herself to plan each task carefully	Midline questionnaire (Q.H7a); coded as 1 when the respondent agree or strongly agrees to the question statement.

Eager to work	A dummy variable for if individual i assess herself eager to return to work when away from it.	Midline questionnaire (Q.H7b); coded as 1 when the respondent agree or strongly agrees to the question statement.
Cautious	A dummy variable for if individual i assess herself to never try something she is unsure of.	Midline questionnaire (Q.H7c); coded as 1 when the respondent agree or strongly agrees to the question statement.
Competitive	A dummy variable for if individual i assess herself as always needing to perform better than others.	Midline questionnaire (Q.H7d); coded as 1 when the respondent agree or strongly agrees to the question statement.
$\texttt{BranchDummy}_j$	Dummy variables for each branch j included in the intervention.	Individual contract offers (ID control section).
$\texttt{ID}_i$	Individual ID.	Baseline questionnaire (ID control section)

Table A2 tests if final attrition is related to observable characteristics

Table A2: *Predicting attrition*

	Outcome:			
	Not Attrited (1)	Not Attrited (2)	Not Attrited (3)	*Sharpened q-values* (4)
Treatment Assignment	0.088***	0.088**	-0.139	
Family 1: Demographics				
Age (years)	-0.001		-0.002	0.698
Dummy: Respondent is currently married	-0.083*		-0.151*	0.048**
Dummy: Respondent can read and write	-0.029		-0.006	1.00
Number of children (years <17) in the household	0.018*		0.007	0.872
Household dependency ratio	0.036**		0.036**	0.048**
Family 2: Occupation and experience				
Dummy: Respondent has a business	-0.058		-0.027	1.00
Dummy: Respondent has worked as a paid employee in the past	-0.021		-0.056	1.00
Dummy: Respondent has had a business in the past	0.015		0.036	1.00
Dummy: Household member(s) have a business	-.057		-0.064	1.00
Family 3: Household assets and income				
Household expenditure in an average month (PKR)	0.00		0.00	0.404
Dummy: household home is owned by a household member	0.069		0.098	0.147
Index: Assets owned by the household	0.022*		0.029	0.147
Family 4: Intrahousehold agency and autonomy				
Dummy: Respondent is confident she can support hh for 4 weeks	0.069		0.088	0.159

	(1)	(2)	(3)	(4)
Index: Respondent empowerment, from makes decisions in the household herself	0.020**		0.024**	0.100
Dummy: Respondent is not allowed by the household to seek employment	-0.073		-0.196	0.214
Family 5: Access to formal or informal finance				
Dummy: Household has outstanding loans	0.091		0.197	0.175
Dummy: Household member(s) have participated in ROSCAs	0.027		0.089	0.175
Dummy: Household member(s) have a bank account	-0.128		-0.159	0.175
N	850	899	850	850
p-value of F test of joint significance of explanatory variables	0.00	0.00	0.00	0.00
Above variables interacted with Treatment	No	No	Yes	Yes

Note: $***p < 0.01, **p < 0.05, *p < 0.1$.

Column (1) reports the coefficient on the variable in the row when they are all included in a regression where the output is being successfully located and surveyed. Column (2) reports the coefficient on treatment status when the outcomes is being successfully located and surveyed. Column (3) reports the coefficient on row variable when included in a regression with treatment status and the interaction of each row variable with treatment status. The agency index variable in Family 4 drops out from the regression due to collinearity with variables in Family 4.

Finally, column (4) reports critical values of the regression in column (3) following the approach by Benjamini and Hochberg, 1995: [AAA]Significance at 1% level, [AA]Significance at 5% level, [A]Significance at 10% level.

The table below shows variation in ITT effects due to young children at home (aged 5 or less). We find that treated women without dependent children are more likely to set up a business that lasts for at least a year. However, women without young children are also just as likely to see a new business shut down within the year.

Table A3: *Heterogeneity in short term treatment effects by young children*

Has young children?	YES (1)	NO (2)	YES (3)	NO (4)
Set up new business	0.121	0.260^{AAA}		
	(0.127)	(0.084)***		
Shut down new business			0.005	0.115
			(0.069)	(0.068)*
MDE	0.165	0.220	0.105	0.078
Mean	0.137	0.121	0.032	0.058
N	197	433	197	433
R^2	0.001	0.022	0.000	0.008
Parameter equality ($p-value$)	0.002		0.304	

Note: 'Young' refers to children under 5 years in age. All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Mean' reports the average value for the control sample in each category over time. Parameter equality $p-value$ are calculated from Seemingly Unrelated Regressions. 'Mean' reports the average value for the control sample over time. $***p < 0.01, **p < 0.05, *p < 0.1$. Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Tables A4 - A6 provide the short term, Local Average Treatment Effects (LATE) of opening up a successful business (that lasts till the first followup at least). We find insignificant effects in general. A null effect on household income and assets is not so surprising given the revenues and profits of businesses owned by the treated and control sample are not significantly different.

Table A4: *Short term LATE on households assets and expenditure*

	Monthly household expenditure (PKR)	Home owner	Asset index
	(1)	(2)	(3)
Set up business	-414.341	0.117	1.357
	(8457.147)	(0.301)	(0.897)
Monthly household expenditure$_{t=0}$	0.228^{AAA}		
	(0.084)***		
Home owner$_{t=0}$		0.478^{AAA}	
		(0.047)***	
Asset index$_{t=0}$			0.158^{AAA}
			(0.046)***
MDE	1516.875	0.097	0.360
Mean	15905.273	0.755	0.075
N	574	630	630

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Monthly household expenditure' is calculated by summing up the average monthly expenditure on different items, reported in PKR. 'Home owner' is a binary variable equal to 1 if someone in the household owns the household home. 'Asset index' is an index created from the number of assets owned by the household using Principal Component Analysis. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $* * *p < 0.01, * * p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

	Bank account	Took loan(s) last year
	(1)	(2)
Set up business	-0.007	-0.124
	(0.425)	(0.384)
Bank account$_{t=0}$	0.079	
	(0.139)	
Took loan(s) last year$_{t=0}$		-
		-
MDE	0.112	-
Mean	0.273	0.137
N	630	630

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Bank account' is a binary variable that is 1 if someone in the household currently has a bank account. 'Took loan(s) last year' is a binary variable equal to 1 if someone in the household took out a loan (other than the treatment loan) in the last year. Given the handful of respondents who had a loan at baseline, the lagged term of this variable was dropped from the regression due to multicollinearity with the ITT variable.'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Table A6: *Short term LATE on agency and autonomy in decision making*

	Confident (1)	Empowerment index (2)	Agency index (3)	Allowed to work (4)
Set up business	-0.088	1.804	0.437	-0.367
	(0.414)	(1.982)	(0.852)	(0.322)
Confidence$_{t=0}$	0.004			
	(0.066)			
Empowerment index$_{t=0}$		0.071		
		(0.047)		
Agency index$_{t=0}$			0.060	
			(0.043)	
Allowed to work$_{t=0}$				0.032
				(0.127)
MDE	0.112	0.472	0.212	0.081
Mean	0.638	0.140	0.032	0.904
N	627	630	627	630.000

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Confident' is a binary variable equal to 1 if the respondent believes she can support her family on her own for 4 weeks. 'Empowerment index' is an index created using Principal Component Analysis from variables that measure if the respondent can make household decisions (clothing, footwear, medical, recreation, social visits, joining credit groups, purchases for self, purchases for others, marriage, investment) on her own. 'Agency index' is an inverse variance-covariance index (Anderson, 2008) created out of the Confident and Empowerment index variables. 'Allowed to work' is a binary variable that is equal to 1 when the respondent feels her household members allow her to work or will allow her to seek work. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $* * * p < 0.01, * * p < 0.05, * p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: [AAA]Significance at 1% level, [AA]Significance at 5% level, [A]Significance at 10% level.

Table A7 provides treatment impact for individual expenditure items. We see a small and statistically significant increase in the expenditure on recreation in the household.

Table A7: *Short term impact on individual expenditure items*

	Food	Non durable excl. food	Medical	School	Recreation	(Mobile bills)	Gifts/loans (to others)	Set aside (as savings)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	422.766 (754.671)	447.710 (676.750)	-499.244 (656.408)	333.030 (328.451)	68.257 (35.083)*	101.514 (136.439)	-110.805 (138.511)	71.315 (255.607)
$Food_{t=0}$	0.015 (0.051)							
Non durable excl food$_{t=0}$		0.316 (0.125)**						
$Medical_{t=0}$			-0.058 (0.089)					
$School_{t=0}$				0.519 (0.112)***				
$Recreation_{t=0}$					0.018 (0.027)			
Mobile bills$_{t=0}$						0.004 (0.050)		
Gifts/loans to other$_{t=0}$							0.021 (0.044)	
Set aside as savings$_{t=0}$								-0.220 (0.100)**
Mean	7686.258	3624.762	652.450	1024.752	220.199	469.785	159.272	604.056
N	630	630	630	630	630	630	630	630
R^2	0.001	0.015	0.005	0.062	0.002	0.002	0.001	0.008

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Monthly household expenditure' is calculated by summing up the average monthly expenditure on different items, reported in PKR. 'Home owner' is a binary variable equal to 1 if someone in the household owns the household home. 'Asset index' is an index created from the number of assets owned by the household using Principal Component Analysis. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Tables A8 - A10 look at the long term impact of the treatment product on outcomes measuring household expenditure and assets; financial access; and female decision making power in the household. The treatment product has no statistically significant effect on any of these variables over the long term.

Table A8: *Long term impact: Households assets and expenditure*

	Monthly household expenditure (PKR)	Home owner	Asset index
	(1)	(2)	(3)
Treatment	-3151.527	-0.019	-0.696
	(3254.426)	(0.090)	(0.588)
Monthly household expenditure$_{t=0}$	0.196^{AA} (0.104)*		
Home owner$_{t=0}$		0.385^{AAA} (0.048)***	
Asset index$_{t=0}$			0.112^{AAA} (0.040)***
MDE	2070.535	0.092	0.441
Mean	16367.686	0.765	0.105
N	588	630	630
R^2	0.011	0.137	0.018

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Monthly household expenditure' is calculated by summing up the average monthly expenditure on different items, reported in PKR. 'Home owner' is a binary variable equal to 1 if someone in the household owns the household home. 'Asset index' is an index created from the number of assets owned by the household using Principal Component Analysis. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent.$* * *p < 0.01, * * p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Table A9: *Long term impact: Access to finance*

	Bank account	Took loan(s) last year	Insurance	ATM card
	(1)	(2)	(3)	(4)
Treatment	0.054	-0.073	-0.045	-0.121
	(0.101)	(0.063)	(0.074)	(0.088)
Bank account$_{t=0}$	-0.026			
	(0.111)			
Took loan(s) last year$_{t=0}$		0.136^{AA}		
		(0.087)		
Insurance$_{t=1}$			0.336^{AAA}	
			(0.061)***	
ATM card$_{t=1}$				0.335^{AAA}
				(0.062)***
MDE	0.112	0.083	0.089	0.087
Mean	0.357	0.130		
N	630	630	630	630
R^2	0.001	0.007	0.077	0.081

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Bank account' is a binary variable that is 1 if someone in the household currently has a bank account. 'Took loan(s) last year' is a binary variable equal to 1 if someone in the household took out a loan (other than the treatment loan) in the last year. 'Insurance' and 'ATM' are only available in the two followup surveys and are binary variables equal to 1 if someone in the household currently has insurance or an ATM card, respectively. 'Mean' reports the average value of the outcome variable for the control sample over time. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Table A10: *Long term impact: Agency and autonomy in decision making*

	Confident	Empowerment index	Agency index
	(1)	(2)	(3)
Treatment	-0.101	0.547	-0.012
	(0.097)	(0.492)	(0.218)
Confidence$_{t=0}$	-0.029		
	(0.052)		
Empowerment index$_{t=0}$		0.117^{AA}	
		(0.043)***	
Agency index$_{t=0}$			-0.034
			(0.051)
MDE	0.110	0.559	0.257
Mean	0.629	0.113	0.009
N	589	630	589
R^2	0.002	0.013	0.001

Note: All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. 'Confident' is a binary variable equal to 1 if the respondent believes she can support her family on her own for 4 weeks. This question was not answered by 41 respondents at endline. 'Empowerment index' is an index created using Principal Component Analysis from variables that measure if the respondent can make household decisions (clothing, footwear, medical, recreation, social visits, joining credit groups, purchases for self, purchases for others, marriage, investment) on her own. 'Agency index' is an inverse variance-covariance index (Anderson, 2008) created out of the Confident and Empowerment index variables. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. $***p < 0.01, **p < 0.05, *p < 0.1$.

Adjusting critical values following the approach by Benjamini and Hochberg, 1995: ^{AAA}Significance at 1% level, ^{AA}Significance at 5% level, ^{A}Significance at 10% level.

Table A11: *Impact on family indices, using Anderson(2008)*

	Index Family 3 (1)	Index Family 4 (2)	Index Family 5 (3)	Index Family 6 (4)
Panel (a) Short term				
Treatment	0.057	-0.046	0.267	0.523
	(0.180)	(0.233)	(0.083)***	(0.193)***
Index Family$j_{t=0}$	0.434	0.078	0.224	-
	0.047***	(0.056)	(0.113)**	
N	574	627	630	630
R^2	0.137	0.003	0.023	0.011
Panel (b) Long term				
Treatment	-0.255	-0.008	0.157	0.483
	(0.293)	(0.218)	(0.073)**	(0.193)***
Index Family$j_{t=0}$	0.345	-0.032	0.139	-
	0.053***	(0.051)	(0.097)	
N	588	589	630	630
R^2	0.074	0.001	0.011	0.008

Note:$j = 3, 4, 5, 6$ for the jth family mentioned in each column. Family 3 refers to 'Household assets and expenditure'. Family 4 refers to 'Agency and autonomy in decision making'. Agency 5 refers to 'Access to formal and informal finance'. Family 6 refers to 'Business status'). All regressions include controls for baseline characteristics that can predict attrition and branch dummies with errors clustered at the individual level. $*** p < 0.01, ** p < 0.05, * p < 0.1$.

Table A12 and A13 provide results of the Lee bounds trimming procedure to account for differential attrition in the treatment and control samples. Point estimates are closer to the upper limit, than to the lower limit. Indeed, the lower limit would be relevant if it is the respondents who are more likely to set up a business, who are home owners, to take a loan or to be more empowered be more likely to register as a survey non-response. This is not likely and so the upper limit is more relevant in our context.

Table A12: *Lee bounds for Intention to Treat treatment effects*

	Set up new business (1)	Shut down new business (2)	Monthly household Expenditure (PKR) (3)	Home owner (4)	Asset index (5)
Panel (a) Short term effects					
Treatment	0.121	0.074	-381.196	0.053	-0.102
	(0.029)***	(0.021)***	(520.407)	(0.033)	(0.132)
Lower bound	0.021	0.046	-776.930	0.032	-0.117
	(0.048)	(0.029)	(639.138)	(0.036)	(0.152)
Upper bound	0.154	0.080	218.952	0.066	0.110
	(0.032)**	(0.021)***	(682.839)	(0.034)*	(0.149)
Constant	0.125	0.045	18046.447	0.723	0.052
	(0.018)***	(0.011)***	(394.635)***	(0.024)***	(0.087)
Trimming (%)	11.7	11.7	12.1	11.7	11.7
N	689	689	659	689	689
R^2	0.024	0.018	0.001	0.004	0.001
Panel (b) Long term effects					
Treatment	0.157	0.068	-70.814	-0.004	-0.317
	(0.034)***	(0.018)***	(746.292)	(0.033)	(0.155)**
Lower bound	0.068	-0.030	-2150.356	-0.033	-0.597
	(0.053)	(0.044)	(768.209)***	(0.041)	(0.190)***
Upper bound	0.201	0.103	1112.487	0.100	0.274
	(0.040)***	(0.029)***	(788.769)	(0.053)*	(0.184)
Constant	0.169	0.044	17270.789	0.785	0.165
	(0.022)***	(0.010)***	(538.757)***	(0.024)***	(0.099)*
Trimming (%)	11.7	11.7	11.5	11.7	11.7
N	630	630	617	630	630
R^2	0.032	0.016	0.000	0.000	0.006

Note:'Treatment' refers to the coefficient on Intention to Treat variable in a simple regression of treatment status on the output variable listed in the column (without including variables that are significantly related to attrition). The lower and upper bounds refer to the treatment effect bounds constructed using the Lee (2009) procedure. $***p < 0.01, **p < 0.05, *p < 0.1$.

Table A13: *Lee bounds for Intention to Treat treatment effects*

|	Has bank account (1)	Took loan(s) last year (2)	Confident (3)	Empowerment index (4)	Agency index (5)
Panel (a) Short term effects					
Treatment	0.046	0.155	0.056	0.075	0.107
	(0.038)	(0.035)***	(0.038)	(0.162)	(0.072)
Lower bound	0.016	0.128	0.038	0.005	0.111
	(0.045)	(0.047)***	(0.040)	(0.178)	(0.078)
Upper bound	0.050	0.162	0.071	0.089	0.205
	(0.047)	(0.044)***	(0.041)*	(0.171)	(0.093)**
Constant	0.509	0.253	0.460	-0.038	-0.284
	(0.027)***	(0.024)***	(0.027)***	(0.119)	(0.053)***
Trimming (%)	11.7	11.7	11.7	11.7	11.7
N	689	689	686	689	686
R^2	0.002	0.027	0.003	0.000	0.003
Panel (b) Long term effects					
Treatment	0.007	0.091	-0.043	-0.113	-0.099
	(0.040)	(0.029)***	(0.041)	(0.200)	(0.095)
Lower bound	-0.055	-0.014	-0.104	-1.429	-0.322
	(0.051)	(0.048)	(0.052)**	(0.174)***	(0.141)**
Upper bound	0.078	0.119	0.037	0.980	-0.099
	(0.047)*	(0.034)***	(0.048)	(0.217)***	(0.196)
Constant	0.523	0.116	0.610	0.059	-0.041
	(0.029)***	(0.018)***	(0.029)***	(0.146)	(0.069)
Trimming (%)	11.7	11.7	12.3	11.7	12.3
N	630	630	589	630	589
R^2	0.000	0.015	0.002	0.001	0.002

Note: 'Treatment' refers to the coefficient on Intention to Treat variable in a simple regression of treatment status on the output variable listed in the column (without including variables that are significantly related to attrition). The lower and upper bounds refer to the treatment effect bounds constructed using the Lee (2009) procedure. $* * * p < 0.01, * * p < 0.05, * p < 0.1$.

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A.2 Figures

Approximately 60% of the treated group reported to have used their loan for purchasing assets or inventory for the business. The remaining 40% of the borrowers did not use the loan for enterprise; however, it is not entirely surprising. The lender, much like other microfinance institutions in the country, does not impose an explicit penalty on misused funds. A borrower is only warned of misuse counting negatively in subsequent loan appraisals. In fact, the reported use of the treatment loan was not very different from other loans that the household may have. At baseline, expenditure related to businesses owned by household members dominated the use for other outstanding loans of the household; at midline, almost 80% of the respondents said these other loans were used for investment and expenditure related to the business; and at endline, 67% of the households with new (non-treatment) loans were still borrowing predominantly to finance business expenditure.

Figure A1: *Treatment product - Reported expenditure items*
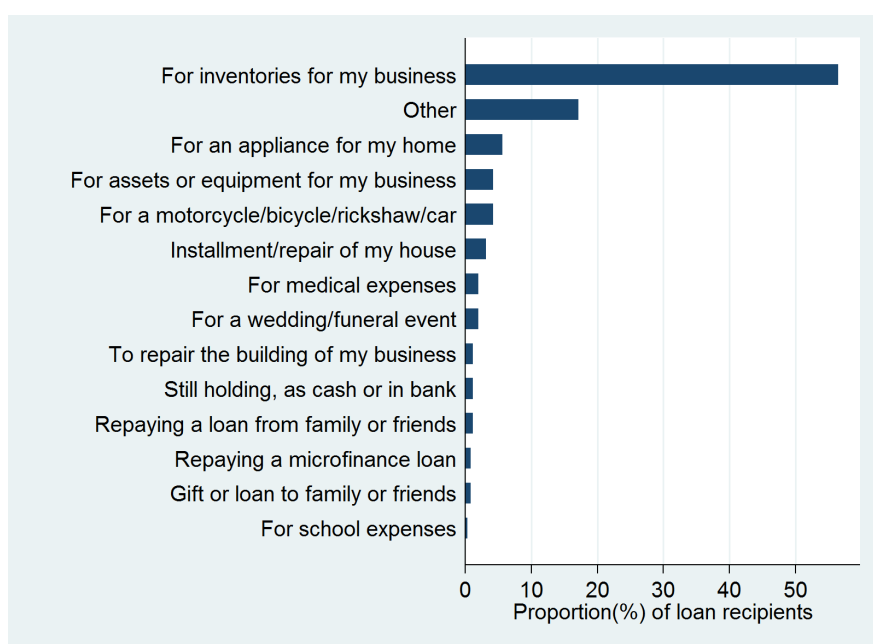
Note: *x-axis* shows the proportion (%) of treatment loan recipients who reported the item on the *y-axis* as the largest item the loan was used for. This question was asked only at midline, that is, one year after the disbursement of the loan.

Figure A2 summarizes sources of loan repayment in the treated sample. 40% of the recipients used the income from their business, 30% used wage income and further 22% used their own (15%) or their family members savings (7%) to repay the loan.

Figure A2: *Treatment product - Repayment sources*
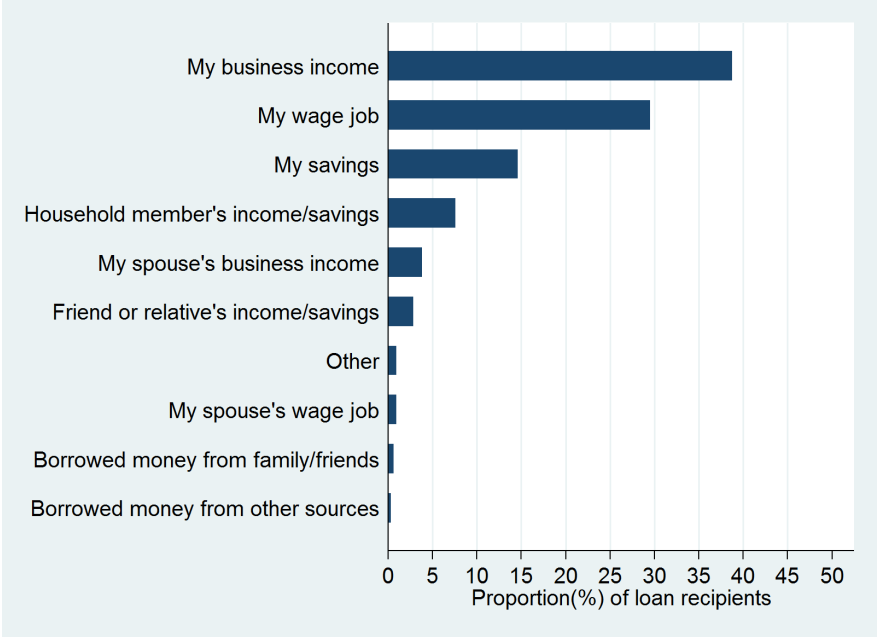
Note: *x-axis* shows the proportion (%) of treatment loan recipients who reported the item on the *y-axis* as the largest source uses to repay the treatment loan. This question was asked only at midline, that is, one year after the disbursement of the loan and shortly after the loan had been repaid.

Figure A3 summarizes the types of businesses set up after loan disbursement. Almost half of the new businesses were business salons, followed by a stitching/embroidery service and food shops.

Figure A3: *Type of business*
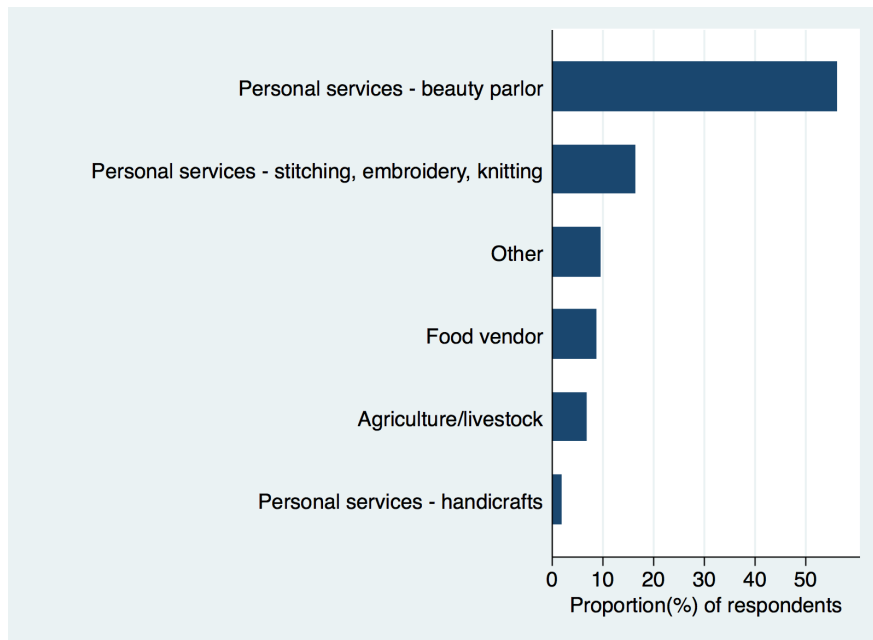
Note: *x-axis* shows the proportion (%) of respondents who report that their business was of the type specified on the *y-axis*.

Figures A4 and A5 plot the long run effects by decile. The effect of treatment on the agency index is not statistically significant at any decile. The effect on asset index, on the other hand, is negative in the left tail.

Figure A4: *Quantile Treatment Effects: Long term effects for outcome variables*
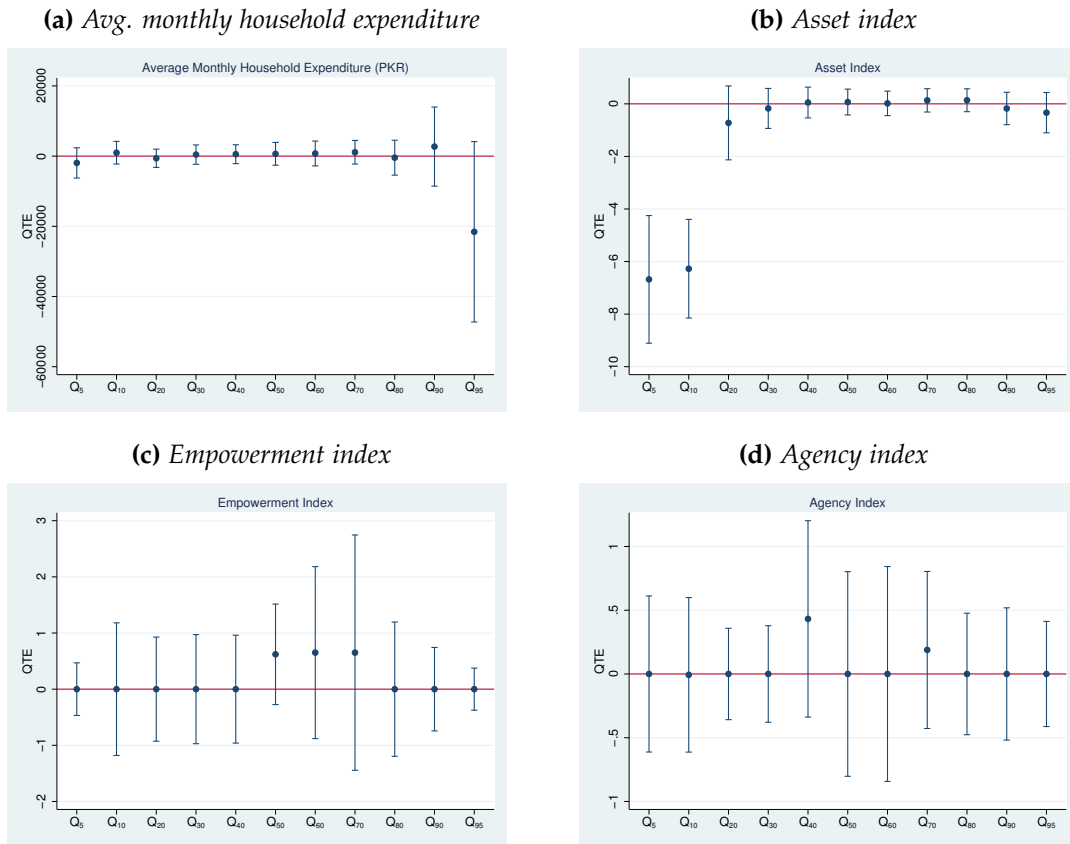
(a) *Avg. monthly household expenditure*

(b) *Asset index*

(c) *Empowerment index*

(d) *Agency index*

Note: *x-axis* shows quantile in each graph, 'dots' represent the Treatment Effects at each decile of the baseline distribution of the same outcome variable. Vertical lines show the 95% confidence intervals.

Figure A5: *Quantile Treatment Effects: Long term effects for average monthly expenditure by category*
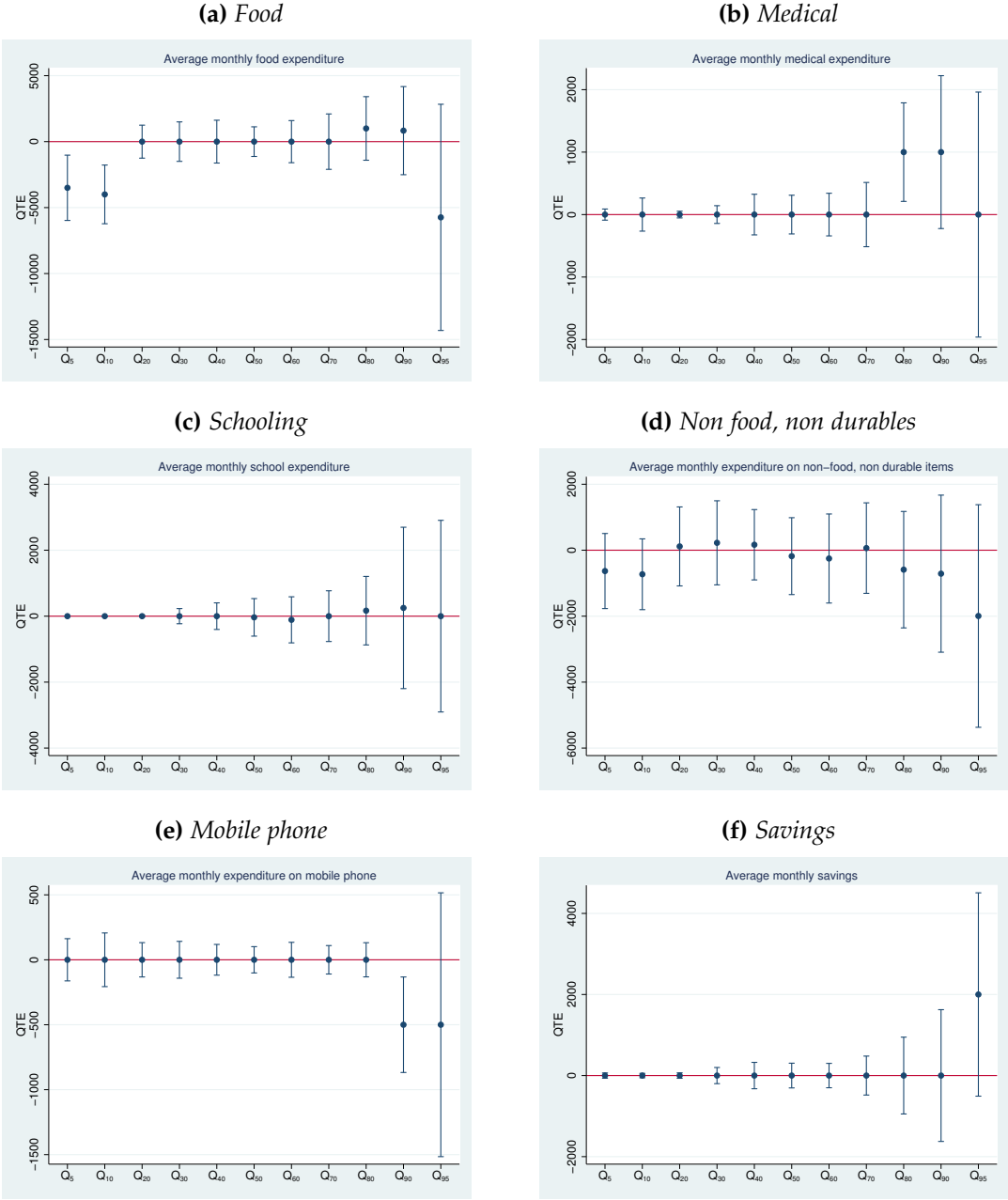
(a) *Food*

(b) *Medical*

(c) *Schooling*

(d) *Non food, non durables*

(e) *Mobile phone*

(f) *Savings*

Note: *x-axis* shows quantile in each graph, 'dots' represent the Treatment Effects at each decile of the baseline distribution of the same outcome variable. Vertical lines show the 95% confidence intervals.

Appendix B

Appendix to Chapter 2

B.1   Tables

Table B1 provides a list of the options provided in the risk elicitation task.

Table B1: *Options provided to participants in the risk aversion elicitation experiment*

Choice	Low (PKR)	High (PKR)	Expected value	Deviation	CRRA
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	$(-\infty, 0)$

Table B2 provides sample statistics for the RCT and experiment samples. Since RCT participants were randomly invited to participate in the lab-in-the-field experiments, the two samples are well-balanced on key observables. On average, RCT and experiment participants are 37 years old. Almost 87% are married and about half the sample is literate (can read or write). Almost one - third of the RCT sample was self-employed at the time of the endline survey and nearly half of the female participants were housewives. There was a slightly larger, yet not statistically different, proportion of women who were self-employed in the experiment sample. Correspondingly, a lower proportion of experiment participants were housewives. The two sample are also statistically similar on average empowerment levels as measured by the endline survey.

Table B2: *Descriptive statistics of the RCT and experiment samples (females only)*

| | RCT | | Experiment | | p-value |
	Mean	Sd	Mean	Sd	
Age	37.076	(9.071)	37.202	(9.328)	0.849
Married	0.871	(0.336)	0.865	(0.342)	0.816
Education					
Illiterate	0.456	(0.498)	0.513	(0.501)	0.111
Primary	0.235	(0.424)	0.210	(0.408)	0.402
More than primary	0.221	(0.415)	0.210	(0.408)	0.715
Occupation					
Housewife	0.525	(0.499)	0.479	(0.501)	0.202
Self-employed	0.319	(0.467)	0.356	(0.480)	0.281
Laborer	0.084	(0.278)	0.097	(0.297)	0.518
Empowerment					
Decide alone	5.16	(3.017)	4.850	(3.042)	0.150
Not allowed work	.161	(.368)	0.165	(0.372)	0.890
Observations	689		267		

$p-value$ in the far right column are from a t-statistic test of the differ- . ence in means across the two samples

Table B3 shows the regressions in Table 2.4, with the dummy variables for opportunistic behavior, low respect and entitled replaced with differences in allocations between private and public, and between earned and unearned dictator games, respectively. The main difference is in the effect of entitlement (represented here by *Allocation to self in earned DG - unearned DG*), is not statistically significant in the household matching (*Allocation to self in earned DG - unearned and partner is a household member*). Other results are qualitatively and quantitatively similar to those represented in the regressions in Table 2.4.

Table B3: *Correlates of opportunistic behavior*

Dependent variable	Allocation in Private DG - Public DG (PKR)		
	All	Male	Female
	(1)	(2)	(3)
Female	2.765		
	(17.11)		
HH Partner	27.47	-60.09	115.1*
	(46.82)	(75.62)	(51.63)
Allocation earned DG - unearned DG	0.208**	0.280*	0.136
	(0.0970)	(0.151)	(0.0984)
Partner takes more than (s)he gives	-1.241	-2.530	-1.789***
	(0.765)	(1.755)	(0.687)
Female agency			7.466
			(11.50)
HH Partner × Allocation earned DG - unearned DG	-0.0867	-0.158	0.0261
	(0.108)	(0.168)	(0.110)
HH Partner × Partner takes more than (s)he gives	0.552	1.844	1.431
	(1.081)	(2.103)	(0.974)
HH Partner × Female agency			-31.78**
			(15.67)
Constant	103.4	1.844	80.34
	(65.94)	(2.103)	(77.89)
Observations	533	266[†]	267
R^2	0.193	0.261	0.322
Parameter equality (*p-value*)			0.000

Note: All allocations refer to allocation to self. OLS regressions. Standard errors in parentheses, clustered at the pair level in Column 1, robust in Column 2 and 3. All regressions control for age, education, occupation, household assets, giving in the public DG and being household head; and include session, household fixed-effects and robust errors. Parameter equality *p-value* between column (2) and (3) are calculated from Seemingly Unrelated Regressions. * p<0.10, ** p<0.05, *** p<0.01.

[†]Data on a control variable, age, is missing for one male respondent.

Being exposed to the treatment has a positive effect on empowerment. Table B4 shows that the treatment product improves the female role in household decision making positively and decreases the likelihood of her now being allowed to work by the household members - both of these effects are significant. Women feel more entitled as well, however, this result is insignificant. Providing women with funding and training makes them more empowered within their household - these results are confirmed when we use a weighted index.

Table B4: *Effect of finance and business training on empowerment (replacing agency index with its components)*

	(1)	(2)	(3)	(4)
Dependent variable	*Entitled*	*HH decide*	*Not allowed work*	*Weighted index*
Dummy: ITT	0.0637	0.593*	-0.0979**	0.280**
	(0.090)	(0.327)	(0.046)	(0.124)
Constant	0.195	1.218	0.294**	-0.526
	(0.314)	(1.291)	(0.132)	(0.367)
Session F.Es.	Y	N	N	Y
Branch F.Es. N	Y	Y	N	
Observations	267	267	267	267
R^2	0.542	0.328	0.173	0.367

Note: The dependent variable in column 1 'entitled' is a dummy capturing feelings of ownership over one's earned income, in column 2 the dependent variable is the number of household decisions the woman can make on her own (ranges from 0 to 9), in column 3 dependent variable is a dummy equal to one if woman is allowed to work outside the house and in column 4 the dependent variable is a weighted index of decision count and being allowed to work (based on Anderson ,2012). ITT is a dummy equal to one if the respondent was part of the treatment group and 0 if in the control group. All regression include controls for age, marital status, if the woman is a housewife, whether literate, asset index and household fixed effects. Robust standard errors in parenthesis. $* * *p < 0.01, * * p < 0.05, *p < 0.1$.

Table B5 shows the regression of opportunistic behavior on being treated in the RCT, as well as when we instrument the empowerment index with treatment and regress opportunism on instrumented empowerment. We do not find any statistically significant effects in the regression. This is consistent with the results discussed in section 2.3.3 where the effects of the RCT and instrumented business variables are statistically significant only for survey measures, not experiment measures such as 'entitled' or 'opportunism'.

Table B5: *Effect of RCT treatment and instrumented empowerment on opportunistic behavior*

	(1)	(2)
Dependent variable: Opportunistic		
Dummy: ITT	0.021	
	(0.078)	
Weighted index		0.051
		(0.125)
Constant	0.069	0.151
	(0.248)	(0.199)
MDE	0.146	
Observations	267	267
R^2	0.583	0.590

Note: The dependent variable is hide which is a dummy equal to one when the respondent keeps more for self in the private round as compared to the public round and zero otherwise. ITT is a dummy equal to one if the respondent was part of the treatment group and 0 if in the control group. Weighted index is the instrumented value for effect of getting the treatment (getting a loan) on empowerment index. MDE is the ex post minimum detectable effect size at a significance level of 0.05 and power of 80 percent. All regression include controls for age, marital status, if the woman is a housewife, whether literate, asset index and session and household fixed effects. Robust standard errors in parenthesis. $***p < 0.01, **p < 0.05, *p < 0.1$

B.2 Experiment timeline

Two sessions were conducted in each of the 13 branches for a total of 26 sessions between August and September 2015. Both sessions in one branch area were held on the same day to minimize chances of information spill-over between participants.[1] Each session was held in a central location close to the local branch and to the residences of the participants. Given the location of Kashf branches, this could mean a distance of 10 to 15 km between participant residence and the site of experiments.The participation fee was set to be more than sufficient to cover transport costs by any means whether public or privately hired.

Participation was capped at a maximum of 12 couples per session to ensure that the logistics of each session were easily managed. In case more than 12 couples were present for a session, a ballot was conducted to select the 12 couples who would participate; others were asked to leave and paid the participation fee as promised.

The sequence of events during experiment sessions is as follows:

1. Upon arrival, subject pairs are seated in the main hall for the start of general instructions. At this point they are informed that they will be paid participation fee plus their earnings from the activities at the end of the session.

2. In case more than 12 pairs show up for the session, a ballot would be conducted to choose 12 pairs. 70.4% of the participants attended the sessions with their husband and 29.5% of the respondents attended with other male members of the household (son, father, brother, etc.)

3. Once 12 pairs have been selected to participate in the session, each pair would retrive a token from an opaque bag that would be their session ID. Tokens 1-6 were

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[1]In each branch area, surveys were conducted during the week, with experiment sessions conducted only on Sundays. All sessions were held on a Sunday so that working participants, particularly the men, were able to easily attend. Further, separate sessions were held for control and treatment participants of the RCT to minimise the likelihood of participants of the two sessions communicating with each other. Morning and afternoon sessions were randomly allocated to control or treatment clients to avoid any time-of-the-day effects biasing results.

red in color; 7-12 were blue (the purpose of this coloring was explained later).

4. Subject pairs were then taken to their respective rooms, men in one room and women in another. No contact is allowed between subjects of opposite genders during the entire experiment. Activities are conducted simultaneously in both rooms.

5. Subjects of the same gender are seated in sequence of their ID tags. There are two rows of chairs spaced apart. Contact between subjects in the same room is strongly discouraged. To help logistics and data entry, participants with ID 1 - 6 are seated on one side, while 7 - 12 are seated on the other.

6. 2 enumerators were solely responsible for entering participant decisions; one for each room. Data was entered on excel sheets designed by the research team and was done immediately upon the completion of an activity/round in each room.

7. The norms game is always played last. Dictator with public and private round (D), taking and dictator with earned endowments (TD) and risk (R) activities are played in random order, set beforehand by researchers. In addition, rounds of each activity (other than risk, which had just one round) were also played in random order. The order of play is shown in Table B6:

Table B6: *Activity order*

Game Order	Session No.
D-R-TD	11, 13, 14, 16, 25
D-TD-R	3, 9, 10, 17
R-D-TD	2, 6, 12, 26
R-TD-D	4, 5, 8, 15, 20
TD-D-R	1, 7, 22, 24
TD-R-D	18, 19, 21, 23

8. The first three activities are played. For dictator and taking activities (D and TD), each subject pair is randomly assigned to stranger and household member/spouse

pairing. Earlier, individuals picked out their pair ID out of an opaque bag. Pairs with a red tag (tag ID 1 - 6), were partnered with their household member and those with blue tags were paired with strangers (of the opposite gender). Each pairing is done without replacement, which means all participants in the stranger pairing were paired with one partner only. 51% of the participants were paired with family member and 49.% are paired with a stranger.

9. The norms activity was always played last. Participants were asked to deem the appropriatness of a decision made by a woman in a hyothetical situation and earned money if their answer matched that of their partner in that round, where the pairing in each round was different. Three rounds were played. Individuals were paired once with household members, once with stranger of the opposite gender and once with stranger of the same gender. The order in which this pairing was done was randomly pre-set by the researchers and is shown in Table B7:

Table B7: *Order of norms question pairing*

Answers Matched to:	Session No.
Stranger (opposite gender), Stranger (same gender), Household member	1, 10, 11, 14, 17, 22
Stranger (same gender), Household member, Stranger (opposite gender)	13, 15, 24
Household member, Stranger (opposite gender), Stranger (same gender)	3, 6, 7, 23, 26
Stranger (opposite gender), Household member, Stranger (same gender)	4, 5, 8, 12, 19
Stranger (same gender), Stranger (opposite gender), Household member	2, 21, 25
Household member, Stranger (same gender), Stranger (opposite gender)	9, 16, 18, 20

10. At the end of the session, in each room, the enumerator would invite one participant to pick a number from 1 - 4 from an opaque bag. The number drawn out would determine which activity of the day was picked for payment. Then, for activities with multiple round, another ballot would determine the round, and then which room's decision (e.g. self or partner's allocations in the dictator and taking games) would be implemented for payment.

11. A short questionnaire was administered to the male participants.

12. Show-up fee + pay off from randomly selected activity was paid to each participant, independently and privately. Participants were not informed what their partners or members of household have earned.

B.3 Experiment script

The full protocol used in the experiment is as below. The entire script was administered to participants in Urdu and local languages - *Saraiki* for Bahawalur and *Punjabi* for Gujrat and Sialkot. Square brackets [] contain instructions for enumerators.

General instructions

Thank you all for taking the time to be here today. My name is [*experimenter's name*], and I will be facilitating this meeting. Helping me today, we also have here [*introduce everyone*]. Before we start, we would like to remind you that we will give you Rs. 1000 each as a compensation for your time, if you decide to participate for the entire duration of the session. These Rs. 1000 are not a part of the activity and are yours to keep. We will give each of you these Rs.1000 at the end of the meeting, together with any other sum you will earn through the activities.

Purpose

- Today, we will conduct a few activities. We are conducting these activities on behalf of Lahore School of Economics, a private university in Lahore.

- These activities are for research purpose only. The results of the study may eventually be published or part of a book.

- The purpose of these activities is to better understand how people in this community make decisions.

- The results of the study may eventually be published or part of a book.

- It is not part of a development project of any sort.

Activities

We will perform several activities here today. At the end of all the activities, we will determine your total payoff by randomly selecting one activity for payment. So you have to be very careful to choose exactly what you want each time you take a decision, because that decision may determine your payment at the end. Is this clear to everyone? Do you have questions on this?

The participants will be performing some activities in exchange for real money that they will be able to take home. You should understand that this is not my money. It is money given to me by Lahore School, to use to conduct a research study. As we told you when we invited you to come her, the meeting may take 2 hours, so if you think you will not be able to stay that long without leaving please let us know now. Those of you who cannot stay may leave now. Thank you all for taking the time to come today.

[If more than 12 couples show up to participate:]

- We only need 24 individuals to participate in these activities. Thus, unfortunately, not all of you will be able to participate.

- We will have a lottery to determine who will participate.

- To complete the lottery, we will take the coupon you came with today, which has your name on it, and fold the coupon in half.

- Next, we will place your folded coupon of paper in this bag.

- This means that we need one coupon for each couple present here today.

- We will then ask one of you to draw 12 pieces of paper from this bag containing your coupons.

- Those whose names will be drawn will stay here and participate in the activities, while the others will go home.

Is this clear to everyone? Does anyone have any questions on how we will select the 24 participants? [Enumerator: conduct ballot]

Those of you, whose names have not been called, can leave now. Thank you all for taking the time to come today.

[Pay show up fee to all subjects who have to leave (hand out pre-prepared envelopes containing Rs.1000 and have them sign a receipt). Then, after people have left, proceed]

We will now ask you to draw a number tag from this bag. This number tag will determine your ID for the activities. You are given an ID to preserve your anonymity: your name will not be kept anywhere in our records, only your ID.

Consent

Before we begin, I will explain the basic activities we will do together, and the rules that we will follow.

[Read Consent Statement] If you wish to participate, please say, 'I do' If you do not wish to participate, please advise us. You will be free to leave then. You will not be able to stay in the activity room(s) if you do not wish to participate.

We will now take all women to one room, and all men to another room. Please follow [Assistant's name] to Room 1 if you are a man, or [Assistant's name] to Room 2 if you are a woman.

[Take the selected participants into the rooms and have them sit. Assistants should direct each subject to her allocated seat. The room number should be displayed on the door so that it is clearly visible]..

[To the participants]

Introduction

Welcome, and thank you again.

- Before we proceed any further, let me stress something that is very important. Many of you were invited here without understanding very much about what we are planning to do today. If at any time you find that this is something that you do not wish to participate in for any reason, you are of course free to leave at anytime. If you do choose to leave, you won't be able to come back into the activity room(s) until everyone if finished performing all the activities.

- Before we start, please make sure your mobile phones are switched off, to avoid interruptions during the meeting.

- If you have heard about activities that have been conducted here in the past you should try to forget everything that you have been told. These are completely different activities.

- Please also be advised, there are no right or wrong choices, so you should choose whatever you think is best for yourself and not look at your neighbor's choices.

- It is important to remember that not everyone will win the same amount in the activities. Your final earnings will depend on your decisions and on the decisions of others. Everyone will still receive the Rs. 1000 payment for participation, regardless of how much you earn in the activities

- We are about to begin. It is important that you listen as carefully as possible to the instructions, because only people who understand the activities will actually be able to perform them. I will run through some examples to make sure you understand. The examples that we will show you are just to illustrate you the activities, they are in no way indications of how you should perform the activity.

- I will read through a script to explain all the activities that we will perform here today. As you may know, these activities are conducted on other days beside this,

so it is very important that people every day receive exactly the same information, and this is the reason why I must read from this script.

NO TALKING

- I will now say something very important. You cannot ask questions out loud or talk about the activities with anyone else while we are here together.

- If you need to ask a question at any time, please raise your hand and I will come to you so I can answer your question privately.

- I will explain the activities, do demonstrations, and let you practice the activities before we perform them for real. These demonstrations and practices are to help you understand the rules and clarify any questions.

- Please be sure that you obey these rules because it is possible for one person to spoil the activities for everyone by talking in front of the group. If this happens, we will not be able to continue forward with the activities today.

- Is this clear to everyone? Does anyone have any questions so far about what will go on today?

[If anyone asks a question out loud, explain again that all questions must be asked in private.]

REAL PAYMENT

- In today's activities, you will have the opportunity to receive a cash payment. The amount that you will receive will depend on your decisions and on the decisions of others. It will also depend on what role is selected to be paid, a point I will explain in more detail shortly.

- Remember that at the end of all the activities, we will determine your total earnings by randomly selecting one activity for payment. This means that each activity that you will perform contributes to determining your final earnings.

- Remember also, that in addition to what you will earn from the activities, each of you will receive Rs.1000 for participating in today's meeting. This money is yours, regardless of what happens during the activities. It will be paid to you in cash together with your earnings from the activities.

- It is real money, which you will be allowed to keep for yourself or do what you wish. This money will paid to you in cash at the end of the meeting.

- During the activities you will make your decisions using paper slips [show slips], each representing Rs. 100. These paper slips will be converted into cash when you get paid at the end of the meeting.

CONFIDENTIALITY

- Both your decisions and your payment will be private and confidential. Nobody, apart from a member of our team who will enter data and calculate payment will know what you earned, and he/she will not tell anyone.

- We will put up these partitions between you every time you have to take a decision. You will make your decisions behind the partitions, so that nobody else can see what you decide.

The first three activities or games will be conducted in a randomized order. The order of the games will be set by the research team and will be known by the enumerators before each session. [Enumerator: The order or information that the order was randomized is not disclosed to the participants].

We are now ready to begin with the first activity. Let me remind you that you may not ask questions or talk while you are here in the group. If you have any questions, you may raise your hand and I (*the enumerator*) or my assistant(s) will come answer your question privately. Please be sure to listen to the instructions carefully.

Risk Elicitation

Announcer:

I will now explain the next/first activity. Please pay close attention to the instructions. We will also do a demonstration, and let you practice the activity before we play. If anything is unclear, please raise your hand and ask.

This activity is individual, i.e. it is not played in pairs, nor is your earnings dependent on the decisions of others. The objective of this activity is to get the most payoff possible and the payoff is based on your own decisions alone.

[*Assistant: distribute cards*]

You have been given a card with 6 options. You will make a choice between these 6 options (1, 2, 3, 4, 5 or 6). I will explain what these options are in a minute. After you select an option, we will draw a ball from this bag. It has an equal number of red and yellow balls [enumerator: draw out each ball one by one and count the number of red and yellow balls].

So this bag has 5 red balls and 5 yellow balls.

Now let me explain what these options are. Each option has the amount in front of it that you will get depending on if a red or a yellow ball is drawn out. You can see this on your card. [Enumerator: point out the options and the amounts on the card/poster].

Let us go over how much you will get from each option depending on if a red or yellow ball is drawn from the bag. Option 1 gives me Rs. 250 if a Red ball is drawn out and Rs. 250 if a yellowball is drawn out. Similarly, option 2 gives me Rs. 475 if a Red ball is drawn out and Rs. 225 if a yellowball is drawn out. Option 3 gives you Rs. 600 if a Red

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ball is drawn out and Rs 200 if a yellow ball is drawn. Option 4 gives you Rs. 750 if a Red ball is drawn out and Rs 150 if a yellow ball is drawn. Option 5 gives you Rs. 950 if a Red ball is drawn out and Rs 50 if a yellow ball is drawn. Finally, Option 6 gives you Rs. 1000 if a Red ball is drawn out and Rs 0 if a yellow ball is drawn. Notice that as we go from option 1 to 6 the difference between what we can get from when a red ball is drawn out and when a yellow ball is drawn out increases.

To summarize first you will chose from option 1 to 6 and then I will draw out a red or yellow ball the bag. This will determine the amount you will get.

Let us look at some examples. For instance, I choose option 2. My assistant will now draw a ball from the bag. [*Assistant: draw out a ball*] You can see that, because my assistant has drawn a [red/yellow] ball, I will get [X] points. Lets say instead, I choose option 5. My assistant will now draw a ball from the bag. [*Assistant: draw out a ball*] You can see that, because my assistant has drawn a [red/yellow] ball, I will get [X] points.

Does anyone have any questions? If you have any questions, please raise your hand and wait for my assistant to come to you.

Let's play a practice round together to make sure that everyone understands the activity. This practice round is to help your understanding of the activity, and it does not count towards your earnings from this activity.

[Play the practice round. Distribute the sheets to everyone. Explain to them that they should mark the option that they want to choose. Draw a ball from the bag, then go to each person and help him or her identify what he or she has earned].

Does anyone have any questions? [After answering all questions] Okay, let's do the activity. [Distribute the cards].

As we have explained, once all activities have been played, we will randomly select one activity for which you will receive payment. If this activity is chosen, then your earnings from this activity will depend on the option that you selected and whether a red ball or a yellow ball was drawn out.

Please mark your choice from 1 to 6 on the card provided after which we will collect your cards. [Collect cards].

Now I will draw a ball out of this bag to determine what you will get if this activity is selected. [Draw out the ball].

Dictator with public and private (secret) rounds

We are now ready to begin another activity(if the second/third activity)/the first activity. Let me remind you that you may not ask questions or talk while you are here in the group. If you have any questions, you may raise your hand and I or my assistant(s) will come answer your question privately.

INTRODUCTION AND PARTNER MATCHING

- This activity is performed by pairs of individuals.

- Each of you will perform this activity with someone from the other room.

- Who your partner will be depends on the color of your number tag that was determined by a random draw earlier.

- Half of you were given a red number tag, the other half a blue number tag. Your partner for this activity is determined by the color of your number tag.

- Those of you who were given a red number tag will be paired with the person they came with to the session today in the other room.

- Those of you who were given a blue number tag will be paired with a stranger in the other room. None of you will know exactly with whom you are paired. Only [researcher's name] knows who is matched with whom, and she/he will never tell anyone.

- In the other room, your partner will be doing the same activities you are.

Do you have questions on who your partner will be in this activity? If you have questions, please raise your hand and I will come to you to answer your question privately.

First we will explain the decisions that you are required to make and it might be a little confusing. Please listen carefully, and if there is anything that you don't understand, please raise your hand and we will explain it again. You will also have a chance to ask any questions you have in private with me to be sure you understand.

I will give you 10 tokens that represent money in a white envelope. [Show the envelope]. Each token is worth Rs.100. We also give you a blue envelope which will be empty. [Show the envelope].

You will be asked to divide the tokens between yourself and a partner. I will explain shortly who this partner is. You can keep all tokens for yourself or you can give some or all to your partner.

For example, you can keep four tokens for yourself and give six to your partner. You will have to put the 4 tokens that you want to keep for yourself in the white envelope and put the rest of the 6 tokens in the blue envelope. [Enumerator: demonstrate this]. This will mean that you have kept Rs. 400 for yourself and given Rs. 600 to your partner.

Or you can keep 6 tokens for yourself in the white envelope and give the rest to your partner by putting them in the blue envelope. This will mean you keep Rs. 600 for yourself and give Rs. 400 to your partner.

We will now show you posters that will explain some of the choices that you can make [paste poster somewhere and go over each of them one by one]. In the first example, you keep 2 tokens for yourself and give 8 to your partner. This means that you have kept Rs. 200 for yourself and given Rs. 800 to your partner. In the second example, you keep 0 tokens for yourself and give all 10 to your partner. This means that you have kept nothing for yourself and given all of the Rs. 1000 to your partner. In the third example,

you keep10 tokens for yourself and give nothing to your partner. This means that you have kept Rs. 1000 for yourself and given nothing to your partner.

Lets practice this activity. I have with me 10 tokens. I decide to put 8 of these tokens in the blue envelope. Who is this money going to go to? [Check if answer is partner]. How much are these tokens worth to your partner? [Check if the answer is 800]. How much money have you kept for yourself? [Check if the answer is 200]. Are there any questions? Please raise your hand and I can come to you in private and explain the activity to you.

We will do this activity twice. Both rounds of the activity will be similar;the only difference is that once your decision will be made public and once kept private. That is, in the public round, your partner will know what amount you allocated to them whereas in the private round, your partner will not know what amount you allocated to them. We will let you know which round is public, which is private and how we will make sure your decisions are kept private in the private round.

As we have explained earlier, once all activities have been played, we will randomly select one activity for which you will receive payment by picking out a number from the bag. Once the activity is selected, we will then select a number again from the bag which will determine the round. Then we will select by again picking out a number from the bag whether payments decided in Room 1 or Room 2 will be made. So, this means that if this activity selected, there is an equal chance that you will be paid according to your choices or those made by your partner. Does anyone have any questions?

[To the enumerator: Randomise order of public/secret activities - you do not need to announce that we are now going to randomise order.]

Public round

Now lets do the first round (if the first round) /Now lets conduct the next round (if not the first round).Your partner in this activity is the same as in the last round. If this activity and round is selected, your choices in this round will be made public. That is,

your choice will be told to your partner but not to anyone else here. In the other room, your partner will be doing exactly the same activities that you are.

Please note, only the amount you allocated will be made known to the partner. This means, that for those of you who are paired with strangers, will disclose the amount allocated but will not disclose your identity. For those paired with the person they came with to this venue, of course, your partner will know your identity as well.

Let me remind you who your partner is. Those of you who were given a red number tag are paired with the person who they came with to the session today in the other room. Those of you who were given a blue number tag are paired with a stranger in the other room. None of you know exactly with whom you are paired. Only researchers knows who is matched with whom, and she/he will never tell anyone. [To the enumerator: Now conduct the activity. Distribute envelopes].

Please open your white envelopes and count that you all have 10 tokens.

Now put the tokens back in the white envelope.

Remember, because this activity is public, your partner will know how much money you gave and how much you kept for yourself. Please put as many tokens as you want to give to your partner in the blue envelope and put the tokens you want to keep for yourself in the white envelope. Make sure your choice is hidden and do not discuss it with other participants in the room. We will then shortly collect both these envelopes from you. This will tell us how much you have given to your partner. Let me remind you that those of you who were given a red number tag will are paired with the person they came with to the session today in the other room. Those of you who were given a blue number tag are paired with a stranger in the other room.

Are there any questions? Please raise your hand and I can come to you in private and explain the activity to you.

My assistant will now come to you one by one to collect the envelopes. Please keep seated as we do so. As we have explained, once all activities have been played, we will

randomly select one activity for which you will receive payment. If this activity is chosen, we will select a number from this bag to select the round and the room according to which payment will be made. [Show numbers and bag].

Secret/private round

Now let us do the first round (if the first round) /Now let us conduct the next round (if not the first round). Your partner in this activity is the same as in the last round. Your choices in this round will be private. That is, your choice of amount to be allocated will not be told to your partner or anyone else here.

Let me now explain how we will make sure your choices are private. If this activity and round is selected at the end, the payment we will make to your partner will be determined by what you give him/her plus/minus a pre-decided amount selected by the researcher that neither I nor anyone else in the other room knows. How will the researcher know how much to add or subtract? He has a choice of a pre-decided amount. To determine whether to add or subtract an amount, I will toss a coin in front of you. I will then tell the researcher outside the result of the coin toss. He will add or subtract the amount corresponding to head or tail to your allocation in this room to calculate the payment that must be made to your partner. In this way, there is no way for your partner to know how much you allocated to him/her.

Are there any questions on how we keep your allocations secret? If you have questions, please raise your hand and wait for my assistant to come to you.

In the other room, your partner will be doing exactly the same activities that you are.

Let me remind you who your partner is. Those of you who were given a red number tag are paired with the person who they came with to the session today in the other room. Those of you who were given a blue number tag are paired with a stranger in the other room. None of you know exactly with whom you are paired. Only researchers knows who is matched with whom, and she/he will never tell anyone.

[Now conduct the activity. Distribute envelopes]

Please open your white envelopes and count that you all have 10 tokens.

Now put the tokens back in the envelope.

Remember, because this activity is private, your partner will never know the money comes from you. S/he will not know how much money you gave and how much you kept for yourself. Please put as many tokens as you want to give to your partner in the blue envelope and put the tokens you want to keep for yourself in the white envelope. Make sure your choice is hidden and do not discuss it with other participants in the room. We will then shortly collect both these envelopes from you. This will tell us how much you have given to your partner.

Are there any questions? Please raise your hand and I can come to you in private and explain the activity to you.

My assistant will now come to you one by one to collect the envelopes. Please keep seated as we do so. As we have explained, once all activities have been played, we will randomly select one activity for which you will receive payment. If this activity is chosen, we will select a number from this bag to select the round and the room according to which payment will be made. [Show numbers and bag].

Taking and dictator with *earned* endowment

We are now ready to begin another activity (if the second/third activity)/the first activity. Let me remind you that you may not ask questions or talk while you are here in the group. If you have any questions, you may raise your hand and I (the enumerator) or my assistant(s) will come answer your question privately. [Only if dictator game has not been played first:] This is NOT the same activity that you just performed, so be sure to listen to the instructions carefully.

INTRODUCTION AND PARTNER MATCHING

- This activity is performed by pairs of individuals.

- Each of you will perform this activity with someone from the other room.

- Who your partner will be depends on the color of your number tag, that was determined by a random draw earlier.

- Half of you were given a red number tag, the other half a blue number tag. Your partner for this activity is determined by the color of your number tag.

- Those of you who were given a red number tag will be paired with their spouse in the other room.

- Those of you who were given a blue number tag will be paired with a stranger in the other room. None of you will know exactly with whom you are paired. Only [researcher's name] knows who is matched with whom, and she/he will never tell anyone.

- In the other room, your partner will be doing the same activities you are.

Do you have questions on who your partner will be in this activity? If you have questions, please raise your hand and I will come to you to answer your question privately.

First, we will explain one part of this activity that might be a little confusing. Please listen carefully, and if there is anything you don't understand, do not worry, since you will have a chance to ask questions in private with me to be sure that you understand how to play.

In this activity, you will have an opportunity to earn money. Everyone in this activity will earn money that will be divided between him or herself and his or her partner. You will earn money by sorting black chickpeas out of a box. The money that you earn by

successfully completing this activity will then be divided between you and your partner in the other room. While we are playing the activity in this room, your partner in the next room will also be making decisions about how he or she would divide money between the two of you that you will earn in the activity.

After we finish playing all the activity, we are going to pick one of the two rooms, this one or the other one. Only the decisions made in the room that we pick will count towards deciding your payment. So, either your decisions or your partners decisions, but not both, will determine how much both you and your partner take home at the end of the activity.

We will first describe how you and your partner will earn money by sorting chickpeas, and then we will describe how you and your partner will divide the others' earnings.

Earning money by sorting chickpeas

There is a large box in front of you. There is an identical box sitting in front of your partner in the next room. The box contains two different kinds of chickpeas: black chickpeas and white chickpeas. Each player has a box and a plate with their number on them.

After we finish explaining the instructions, we'll ask you to remove the lid from your box and place it on the floor. At that point, we will give you two minutes to collect black chickpeas from the box and place them into the plate. After you finish collecting black chickpeas, we will count the black chickpeas that you have in your plate. You will be paid according to the number of black chickpeas that you collect.

Please look at this poster to understand how we are going to pay you. The poster shows you ranges of chickpeas that you may collect. If you collect a number within one of these ranges, you will be paid the amount shown in the column next to it. For example, if you collect 50 black chickpeas, you will get Rs. 200. If you collect less than 20 chickpeas, you will get nothing. If you collect 35, you will get Rs. 100. Any questions? [Enumerator:

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Table B8: *Earnings corresponding to black chickpeas collected*

Range (black chickpeas)	Earning (Rs.)
0-19	0
20-39	100
40-59	200
60-79	300
80-99	400
100-119	500
120-139	600
140-159	700
160-179	800
180-199	900
200 or more	1000

read out all possible earnings from the poster put up as given in Table B8].

So, you will earn money in this activity by collecting chickpeas from the box. The more chickpeas you collect, the more money you earn. In the other room, your partner will follow the same procedure and earn money by counting chickpeas in exactly the same way. So the same holds for your partner: the more chickpeas your partner collects, the more money he or she earns.

You can spend up to two minutes collecting chickpeas. At the end of the two-minutes, we will ask everyone to replace the lids on their boxes. However, you are free to stop at any time during the two-minute period. If you stop before the two-minutes are over, we will ask you to put the lid back on the box. You will then bring the black chickpeas you have collected up to the front of the room, where we will count them. Your partner in the other room will also have two minutes to collect black chickpeas, will be free to stop at any time during the two minutes period, and will bring the black chickpeas he or she has collected to be counted.

While you are collecting chickpeas from the box, you will follow these rules. These are the same rules that your partner will follow in the other room.

- No one is allowed to leave chickpeas on the floor. If a participant leaves chickpeas

of any type on the floor (rather than in the box) at the end of the two minutes, that participant will not be paid anything for the chickpeas that have fallen on the floor.

- Also, you cannot empty out your box and pick the chickpeas off the floor. Any participant who empties out their box onto the floor will not be paid anything for the chickpeas he or she collected.

- In addition, everyone must make sure to only place black chickpeas into the plate that we willl take to count and determine how much you earn. When each participant brings their chickpeas up to be counted, we will check if there is a white chickpea in the plate. If there is, we will deduct Rs.50 for every white chickpea we find in your plate. For example, if a participant sorted out 20 black chickpeas, he would earn Rs. 100 but if the participant sorted 20 black chickpeas and also a white chickpea in the plate, he will receive Rs. 100 minus 50 i.e. Rs. 50.

- Finally, participants are not allowed to remove the box from the floor in front of them at any time while they are sorting out chickpeas. They may not tip or lift the box, as chickpeas could spill onto the floor.

So, both you and your partner will have two minutes to collect black chickpeas from the box. Both you and your partner can stop at any time, or work for the full two minutes. Both you and your partner will be paid according to the number of black chickpeas that you collect.

Before we explain the rest of the activity, we are going to let you try sorting chickpeas into the plate. Each of you can take the lid off of your box and place it on the floor. Please reach into the box and pull out one black chickpea. We will come around and verify that each of you understands the distinction between the different types of chickpeas.

We've finished explaining how you and your partner will earn money in this activity by collecting chickpeas from a box.

Before you can sort chickpeas, we are going to invite you outside to tell us how you want to divide your possible earnings between yourself and your partner in the next room. You will tell us how you would divide all of the possible amounts that you might end up being paid for sorting out chickpeas. In the other room, your partner will be asked to do the same. We will just explain what these possible amounts are.

We will ask you to decide how to divide each other's earnings twice. Please listen carefully as this may be confusing. Once we will ask you to divide your own earnings between yourself and your partner and once we will ask you to divide your partner's earnings between yourself and your partner. Please note the distinction, in one case you will be dividing your own earning and in the other you will be dividing yours partners earnings. Is this clear to everyone?

Dividing the earnings

[randomise order of dictator and taking allocation and then read instructions for whichever is chosen first]

Dictator:

In this round we will be asking you to divide your own earnings between yourself and your partner. We will now go through all of the possible amounts that you may earn. The smallest amount that you may earn is Rs. 0, which is what you would earn if you did not collect at least 20 black chickpeas. On the other hand, no matter how hard you work, you cannot earn more than a 1000. For each possible amount that you may end up earning, we'll ask you how you would divide that money between yourself and your partner.

In this round you are allowed to keep as much or as little of your earnings to yourself as you want, it is your decision. How much you want to leave your partner might depend on how much you earn. For each amount that you earn, we'll ask you how much of it you would like to keep for yourself. We will ask the same questions to your partners, finding

out how much he/she or she would like to keep to him or herself for each possible amount that he/she might earn.

Let's look at a couple of examples.

Imagine that an individual comes to me. I will fill out this sheet with them [show sheet] by asking him or her about each possible earning. For example I will ask 'if you end up earning Rs. 400, how do you want to divide it between yourself and your partner?' A possible answer of the player could be: 'I will take Rs. 200 and leave the other Rs 200 for my partner'. Then I will ask him or her: 'I want you to tell me what you would do if you earned Rs. 800 instead. How would you like to divide it between yourself and your partner?' A possible answer of the player could be: 'I will give myself Rs 600 and I will leave my partner Rs 200.' Then I will ask him or her: 'I want you to tell me what you would do if you earned Rs 1000. How would you like to divide it between yourself and your partner?' A possible answer of the player could be: 'I will give myself Rs 400 and I will leave my partner Rs 600.'

Different people might make different decisions. Now imagine that another player comes to me. I will ask him or her: 'Now please tell me how you want us to divide your earnings if you earn 500.' A possible answer of this other player could be: 'I will give all of the money to my partner and take nothing for myself.'

Remember, you can divide the money that you earned any way you want, the decision is yours. You can leave your partner all of your earnings, or none of it. You can do whatever you want to do.

Remember, all of you are going to receive Rs. 1000 as participation fee for attending the activity session. As we have explained, in addition to the participation fee, once all activities have been played, we will randomly select one activity for which you will receive payment. If this activity is chosen, we will select a number from this bag to select the round and the room according to which payment will be made. [show numbers and bag]. The payment to you for this game will be after any penalties have been deducted.

Let me also remind you who your partner is for this activity. For those of you who have a red tag, your partner is whoever you came with in the next room. For those of you who have a blue tag, your partner is a stranger in the other room. Only [researcher's name] knows who you are matched with if you have a blue tag, and she/he will never tell anyone.

Are we ready to begin? This may take some time, and you must sit quietly while you await your turn. [Answer any questions and then begin calling subjects to you by ID number on their tag whenever the enumerators recording the choices are ready. It is very important that one enumerator makes sure that everyone is seated and not talking at all.]

Taking:

In this round we will be asking you to divide your partner's earnings between yourself and your partner. We will go through all of the possible amounts that your partner may earn. The smallest amount that they may earn is Rs. 0, which is what they would earn if they collect at least 20 black chickpeas. On the other hand, no matter how hard they work, you cannot earn more than Rs. 1000. We have played this activity many times, and no one has ever earned that much. For each possible amount that they may end up earning, we will ask you how you would divide that money between yourself and your partner.

In this round you are allowed to transfer as much or as little of your partner's earnings to yourself as you want, it is your decision. How much you want to leave your partner might depend on how much your partner earns. For each amount that your partner might earn, we'll ask you how much of it you would like to transfer to yourself. We will ask the same questions to your partners, finding out how much he or she would like to transfer to him or herself for each possible amount that you might earn.

Let's look at a couple of examples.

Imagine that an individual comes to me. I will fill out this sheet with them [show sheet] by asking him or her about each possible earning. For example I will ask 'If your partner ends up earning Rs. 500, how do you want to divide it between yourself and

your partner?'. A possible answer of the player could be: 'I will take Rs. 200 and leave the other Rs 300 for my partner.' Then I will ask him or her: 'I want you to tell me what you would do if your partner earned Rs. 900 instead. How would you like to divide it between yourself and your partner?' A possible answer of the player could be: 'I will give myself Rs 600 and I will leave my partner Rs 300.' Then I will ask him or her: 'I want you to tell me what you would do if your partner earned Rs 100. How would you like to divide it between yourself and your partner?' A possible answer of the player could be: 'I will give myself Rs 50 and I will leave my partner Rs 50.'

Different people might make different decisions. Now imagine that another player comes to me. I will ask him or her: 'Now please tell me how you want us to divide your earnings if you earn 500.' A possible answer of this other player could be: 'I will give all of the money to my partner and take nothing for myself.'

Remember, you can divide the money that your earns any way you want, the decision is yours. You can leave your partner all of their earnings, or none of it. You can do whatever you want to do.

Remember, all of you are going to receive Rs. 1000 as participation fee for attending the activity session. As we have explained, in addition to the participation fee, once all activities have been played, we will randomly select one activity for which you will receive payment. If this activity is chosen, we will select a number from this bag to select the round and the room according to which payment will be made. [show numbers and bag]. The payment to you for this game will be after any penalties have been deducted. Let me also remind you who your partner is for this activity. For those of you who have a red tag, your partner is whoever you came with in the next room. For those of you who have a blue tag, your partner is a stranger in the other room. Only [researcher's name] knows who you are matched with if you have a blue tag, and she/he will never tell anyone.

Are we ready to begin? This may take some time, and you must sit quietly while you

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await your turn. [Answer any questions and then begin calling subjects to you by ID number on their tag whenever the enumerators recording the choices are ready. It is very important that one enumerator makes sure that everyone is seated and not talking at all.]

Now, you have two minutes to collect chickpeas from the box in front of you. Is everyone ready to begin?

[To the enumerator: conduct the sorting activity]

Norms elicitation

This is the last activity. Your partner in this activity is different from your partner in the activities we have conducted before. Please forget the activities you have done before this one, this activity and you partner in it, is completely different from what you have been doing before. I will just let you know who your partner is.

For this activity, I will read to you descriptions of situations. These descriptions correspond to situations in which one person, a woman, must make a decision. For each situation, you will be given a description of the decision faced by the woman. After I read to you the description of the decision, I will describe a choice that the woman might have made, and you should decide whether making that choice would be 'socially appropriate' and 'consistent with moral or proper social behaviour' or 'socially inappropriate' and 'inconsistent with moral or proper social behaviour'. By socially appropriate, we mean behaviour that most people agree is the 'correct' or 'ethical' thing to do. Another way to think about what we mean is that, if someone were to make a socially inappropriate choice, then someone observing this behaviour might get angry at the person who made the choice for acting in that manner.

In each of your responses, we would like you to answer as truthfully as possible, based on your opinions of what constitutes socially appropriate or socially inappropriate behaviour.

To give you an idea of how the experiment will proceed, we will go through an

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example and show you how you will indicate your responses. I will now read to you an example of a situation. These cards that I am holding illustrate the situation and the decision sheet.

Someone is at a local grocery store. While there, the person notices that someone has left a wallet/bag on the counter. How appropriate would it be to take the wallet?

If this were the situation we asked you about today, you would indicate the extent to which you believe taking the wallet would be 'socially appropriate' and 'consistent with moral or proper social behaviour' or 'socially inappropriate' and 'inconsistent with moral or proper social behaviour'. Recall that by socially appropriate we mean behaviour that most people agree is the 'correct' or 'ethical' thing to do. You should indicate your choice by filling the decision sheet [Hold up a reproduction of the decision sheet, where the answers are pictured using thumbs up or down]. As you can see, the decision sheet has four symbols on it:

- 2 thumbs down, corresponding to 'very socially inappropriate'

- 1 thumb down, corresponding to 'somewhat socially inappropriate'

- 1 thumb up, corresponding to 'somewhat socially appropriate'

- and 2 thumbs up, corresponding to 'very socially appropriate'.

This is to help you recognize and remember what each of these options mean.

For example, suppose you thought that taking the wallet was socially inappropriate. Then, you would indicate your response by selecting the second symbol, the one with the one thumb down on the decision sheet. If you think that it is ok to take the wallet, then you may tick against socially appropriate, the one with one thumb up.

Are there any questions about this example situation or about how to indicate your responses?

I will now read to a situation, dealing with decision that a woman might have to make. I would like you to think whether making that choice is very socially inappropriate, some-

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what socially inappropriate, somewhat socially appropriate, or very socially appropriate for a woman to make.

For example, imagine that a woman can buy a piece of clothing for herself, using money she has been given by her parents as a gift. She wants to buy a suit. Her husband offers to go and buy the suit for her. She can let the husband go shopping for her, or she can go herself. She decides to go shopping by herself. How appropriate do you think it is for the woman to buy the suit by herself? Do you think her decision is very socially appropriate, somewhat socially appropriate, somewhat socially inappropriate or very socially inappropriate? I think the decision is socially appropriate so I tick against this box, the one with the one thumbs up. Lets see now what my assistant thinks [assistant say that you think that is very socially inappropriate, and tick in the two thumbs down sign].

To indicate your response, you would place a check mark on the corresponding symbol on the decision sheet [Hold up reproduction of decision sheet again].

How will you get paid for this activity? If this activity is the one selected to be paid, we will pay you Rs. 300 every time your answer matches the answer of someone you are paired with in this or the other room, in addition to your participation fee. For instance, if the example situation above were part of this activity, and this activity were selected to be paid, you would receive Rs. 300 for this question if:

- your response were "somewhat socially appropriate,"

- AND the answer given by another person in the other room were also 'somewhat socially appropriate'.

Otherwise you would receive only the Rs. 1000 participation fee.

Who is the person in the other room, whose answers will be compared to your to determine your earnings from this activity? It will be a different person in different questions. We will explain exactly who this person is when we ask each question.

Do you have any questions? If you have any questions, please raise your hand and wait for my assistant to come to you.

Ok, lets conduct the activity.

Question:

I will now tell you about a situation, also dealing with a decision that a woman might have to make. Again, I would like you to think whether making that choice is very socially inappropriate, somewhat socially inappropriate, somewhat socially appropriate, or very socially appropriate. To indicate your response, you would place a check mark on the corresponding symbol on the decision sheet. 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?

[randomize order of questions a-c]

Question a: Stranger in other room

I (again) will distribute sheets to you in which you must mark your answer [Enumerator: Distribute sheets].

You will receive Rs. 300 for this question only if your answer matches that of a randomly selected person in the other room, different from your who you came with today, and if this activity is selected for payment. Other than the stranger being in the other room, nor you nor I know who the person you are matched with is today, only [researchers name] knows and s/he will not tell anyone. To mark your answer, tick the

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corresponding box in the answer sheet in front of you.

Question b: Stranger in the same room

I (again) will distribute sheets to you in which you must mark your answer [Enumerator: Distribute sheets].

You will receive Rs. 300 for this question only if your answer matches that of a randomly selected person in the same room. So note the difference from previous activities: you are not matched with someone in the other room. You will get paid for this question if your answer matches that of a randomly selected person in the same room and if this activity is selected for payment. Other than the stranger being in this room, nor you nor I know who the person you are matched with is today, only [researchers name] knows and s/he will not tell anyone. To mark your answer, tick the corresponding box in the answer sheet in front of you.

Question 1c: who they came with today, in other room

I (again) will distribute sheets to you in which you must mark your answer [Enumerator: Distribute sheets].

You will receive Rs. 300 for this question only if your answer matches that of who you came with today in the other room and if this activity is selected for payment. To mark your answer, tick the corresponding box in the answer sheet in front of you.

B.4 Survey questions to measure empowerment

The variable '*Decide alone*' is constructed using the response to the following survey question: Who in your household usually makes decisions about the following?

1. Clothing and footwear

2. Medical treatment

3. Recreation and travel

4. Visit friends in the neighbourhood

5. Make small purchases for yourself (e.g. clothes)

6. Make small purchases for others in the household (e.g. kitchen utensils)

7. Join a credit group/committee

8. Invest surplus money

9. Loan from an organisation

- Each item above is coded as 1 if the woman reports deciding alone and 0 otherwise and then added to form an equal weighted index.

The variable '*Not allowed work*' is constructed using the response to the following survey question: Why are you not actively seeking paid work?

- '*Not allowed work*' takes on the value 1 if the woman reported not being allowed by husband or father; and 0 otherwise, in response to the following question:

Appendix C

Appendix to Chapter 3

C.1   Tables

Table C1: *Descriptive data from female respondents*

	N	Mean	S.Dev.	Median	Min.	Max.
Age (years)	564	37.1	10.0	37.0	1.0	66.0
Dummy: Respondent is currently married	564	0.9	0.3	1.0	0.0	1.0
Dummy: Respondent can read and write	564	0.5	0.5	1.0	0.0	1.0
Dummy: Respondent has completed primary education or less	564	0.2	0.4	0.0	0.0	1.0
Dummy: Respondent has completed at least secondary education	564	0.2	0.4	0.0	0.0	1.0
Index: Assets owned by the household	564	0.2	1.4	0.4	-6.1	3.1
Dummy: Respondent is a housewife	564	0.5	0.5	1.0	0.0	1.0
Dummy: Respondent is self-employed	564	0.1	0.3	0.0	0.0	1.0
Dummy: Respondent is a labourer	564	0.1	0.3	0.0	0.0	1.0
Dummy: Respondent is a salaried worker	564	0.1	0.2	0.0	0.0	1.0
Index: Respondent makes decisions in the household herself	564	-0.0	2.5	-0.4	-3.0	3.1
Number of household decisions the female makes herself	564	4.3	3.7	3.0	0.0	9.0
Respondent belongs to the RCT treatment sample	564	0.5	0.5	1.0	0.0	1.0

Note: 'Asset index' is an index created from the number of assets owned by the household using Principal Component Analysis. Decisions in the household include clothing and footwear, recreation, medical expenses, visiting friends, purchasing small items for self, purchasing for household members, investing surplus money, participating in a ROSCA or applying for a loan. 'Agency index' is an inverse variance-covariance index (Anderson, 2008) created out of the variables measuring if the woman can make decisions herself and if she feels confident she can support the family for 4 weeks.

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Table C2 provides results from an ordered logit regression investigating the correlates of business preferences. The dependent variables is coded as 1 for business operation within the home; 2 for business operation in the nearby market; and 3 for business operations in the city. We see qualitatively similar results to the those shown in Table 3.3, the only exception being the gender dummy, which now marginally significant and positive ($p = 0.099$).

Table C2: *Correlates of business preferences*

Dependent variable: *Business location (1,2,3)*					
	(1)	(2)	(3)	(4)	(5)
Female	0.159				
	(0.096)*				
Agency index		-0.141			
		(0.136)			
Has young children			-0.385		
			(0.257)		
WTP for advice				0.609	
				(0.282)**	
WTP for expert advice				-0.083	
				(0.279)	
ITT					0.119
					(0.226)
Literate	0.462	0.414	0.412	0.469	0.440
	(0.221)**	(0.245)*	(0.247)*	(0.253)*	(0.247)*
Housewife	0.007	-0.048	-0.042	-0.038	-0.022
	(0.206)	(0.224)	(0.225)	(0.225)	(0.233)
Self employed	-0.475	-0.326	-0.292	-0.333	-0.238
	(0.307)*	(0.307)	(0.300)	(0.314)	(0.313)
N	1007	491	491	491	491
Pseudo R^2	0.053	0.047	0.049	0.055	0.048

Note: Results show coefficients from an ordered logit regression with dependent variable coded as business location = 1 for business operations inside the home; = 2 for business in the nearby market; = 3 for business operations in the city. Columns (2) - (5) show results for women only. *ITT* is a dummy variable that is equal to one if the female respondent belonged to the RCT treatment sample in 2014. *Agency index* is created using Anderson (2008) from variables that measure if the respondent can make household decisions (clothing, footwear, medical, recreation, social visits, joining credit groups, purchases for self, purchases for others, marriage, investment) and feels confident in her ability to support the household (for 4 weeks) on her own. *WTP* is a dummy if the respondent is willing to pay PKR 50 or more for advice. All regressions include controls for female respondent age and marital status, household assets and the version of survey administered at endline. All errors clustered at the individual level. $* * *p < 0.01, * * p < 0.05, *p < 0.1$.

Table C3: *Correlates of business preferences*

Dependent variable: *Business location (0,1)*					
	(1)	(2)	(3)	(4)	(5)
Female	0.169 (0.097)*				
Agency index		-0.145 (0.131)			
Has young children			-0.429 (0.256)*		
WTP for advice				0.612 (0.282)**	
WTP for expert advice				-0.086 (0.283)	
ITT					0.062 (0.223)
Literate	0.378 (0.223)*	0.358 (0.249)	0.356 (0.252)	0.396 (0.255)	0.362 (0.249)
Housewife	0.024 (0.200)	-0.022 (0.220)	-0.018 (0.221)	-0.008 (0.222)	-0.006 (0.225)
Self employed	-0.458 (0.320)	-0.210 (0.328)	-0.178 (0.326)	-0.222 (0.344)	-0.174 (0.332)
N	1007	491	491	491	491
Pseudo R^2	0.053	0.049	0.052	0.058	0.047

Note: Results show coefficients from a logit regression with dependent variable coded as business location = 0 for business operations inside the home; = 1 for business in the nearby market or in the city. Columns (2) - (5) show results for women only. *ITT* is a dummy variable that is equal to one if the female respondent belonged to the RCT treatment sample in 2014. *Agency index* is created using Anderson (2008) from variables that measure if the respondent can make household decisions (clothing, footwear, medical, recreation, social visits, joining credit groups, purchases for self, purchases for others, marriage, investment) and feels confident in her ability to support the household (for 4 weeks) on her own. *WTP* is a dummy if the respondent is willing to pay PKR 50 or more for advice. All regressions include controls for female respondent age and marital status, household assets and the version of survey administered at endline. All errors clustered at the individual level. $***p < 0.01, **p < 0.05, *p < 0.1$.

Table C4 provides the effect of the treatment (*ITT*) on the demand for advice.

**Table C4:** *Correlates of willingness to pay for advice*

Dependent variable:	WTP	WTPexpert
	(1)	(2)
ITT	0.062	0.054
	(0.206)	(0.259)
Female respondent is married	0.313	0.492
	(0.298)	(0.405)
Female respondent is a housewife	0.034	0.365
	(0.210)	(0.265)
Female respondent is self employed	0.692	0.489
	(0.337)**	(0.404)
Index: Female respondent makes	0.742	0.858
household decisions herself	(0.109)***	(0.169)***
N	564	564
Pseudo R^2	0.229	0.238

Note: WTP is a dummy variable equal to 1 when the respondent is willing to pay at least PKR 50 to obtain (any) advice. WTPexpert is a dummy variable equal to 1 when the respondent is willing to pay at least PKR 50 to obtain expert advice. *ITT* is a dummy variable that is equal to one if the female respondent belonged to the RCT treatment sample. Index of female decision-making is constructed out of variables measuring if the female is involved in food, clothing, medical, financial decision making in the household. All regressions include controls for female respondent age and an index of decision making power in the household and household assets. All errors clustered at the household level. $***p < 0.01, **p < 0.05, *p < 0.1$.

C.2   Figures

The figure below shows the percentage of total men and women who ranked profits correctly, for each version of the question asked. In version 1, business operated from home, local market, city were associated with increasing levels of profits. In version 2, they were associated with decreasing levels of profits. Respondents were more likely to rank profits in version 2 than in version 1. However, the difference in proportion who answer either version correctly is only significant for women. All regressions presented in the analysis control for the respondent ranking profits correctly.

**Figure C1:** *Profits correctly ranked, by respondent gender and question version*
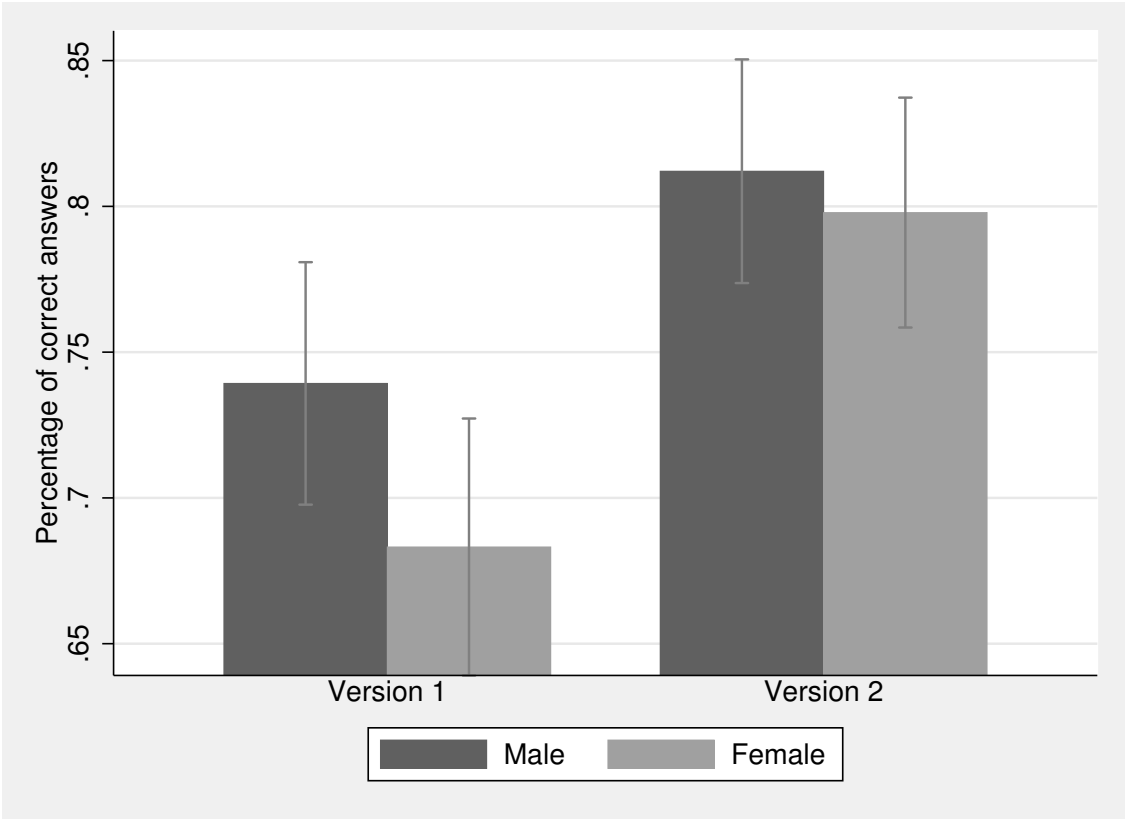
Note: *x-axis* shows the version of the game played by men and women. Version 1 involved increasing levels of profits, version 2 involved decreasing level of profits. The *y-axis* measures percentage of respondents who were able to rank business opportunities by profits correctly.

Figure C2 displays demand for advice for knowledge and non-verbal questions, at price PKR 0, 50, 100 (~0,0.5,1). Demand decreases as price increases. Demand for advice is lower for knowledge questions than for non-verbal questions. Demand for expert advice is always lower than the demand for advice from male household member.

(a) *Advice on knowledge questions*
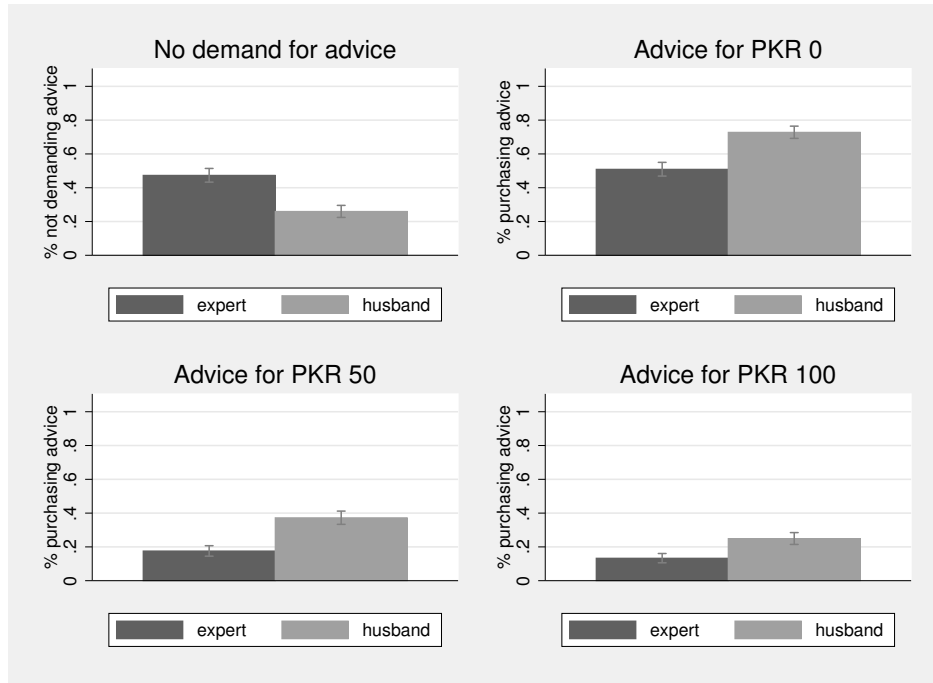
(b) *Advice on abstract reasoning questions*
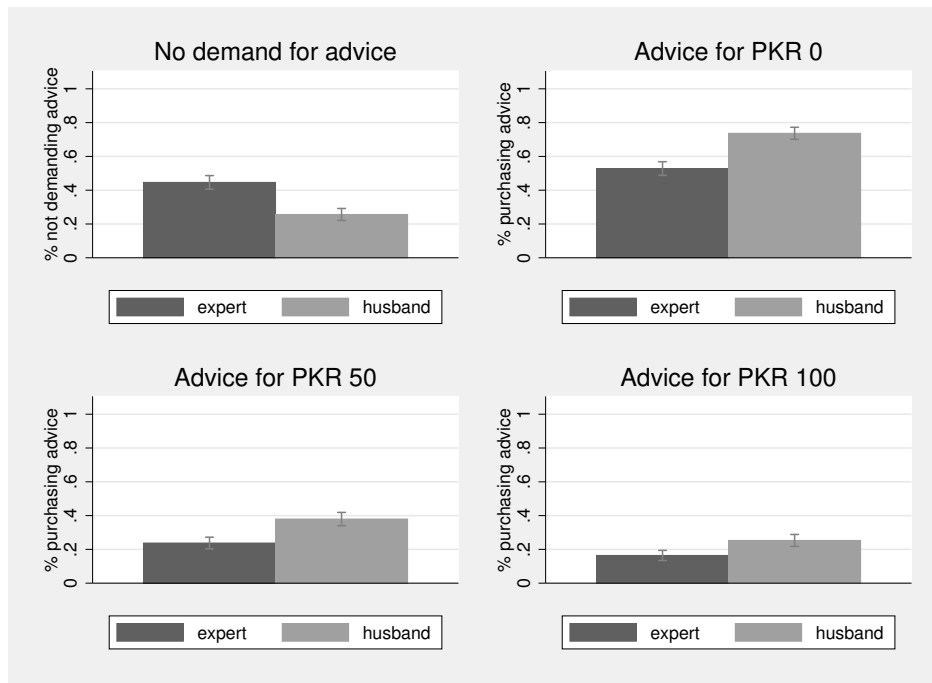
Note: Each panel shows the demand for different 'prices' of advice. *No demand for advice* is a binary variable equal to one if the respondent indicated she did not want advice at any purchase price, including 0. *Advice for 0, 50, 100* refer to the purchase price that the respondent was willing to pay for advice. *x-axis* shows the 'advisor'. The *y-axis* displays the percentage of female respondents who were willing to pay the given price to obtain advice.

C.3 Experiment script

Thank you for answering our survey and being a part of our research. Before we start with a small exercise, we would like to give you Rs. 300 as a compensation for your time in participating in this survey. These Rs. 300 are not a part of the activity and are yours to keep.

I would like to have brief conversation with your husband regarding our research. Can you please call him and give us 5 minutes alone in this room?

[Enumerator: If husband is available and willing to talk to us, proceed with the next questionnaire form. If husband not available, ask if it is possible to call him and agree with him on a time to visit again. If husband not available to talk on the phone, agree with the wife on a time to visit the household again when the husband will be present. If the husband is unwilling to talk to us, please record 77.

[Enumerator: If the respondent is unmarried or her husband does not live with her/is not a part of the household roster, then ask for the male household head. If household head is a female, then ask for the main male adult (18 or above) decision maker in the household. Step 1 is then to be administered to this male individual.]

If there is no husband and/or an adult male household member in the household then record 77.

Step 1: Male respondent Enumerator: [Communicate the following with the male respondent]

I will now ask you a few questions. Your answers in these questions can help you earn up to Rs. 100 so please answer carefully and honestly. Please ask for clarification if you do not understand any question. Your answers will remain completely confidential and not revealed with your name outside this house. None of the responses here will be recorded with your name.

[Enumerator: Please make sure that the female respondent cannot hear what you are saying to the male household member]

Step 1: with male husband/household head/main male decision maker Record Name. Record Relationship with main female respondent.

1. There are 3 business opportunities: Version I:

1. Business A which is to be done at home and yields Rs.5,000 in sales every month and running cost is Rs. 2,000

2. Business B which is to be done by going to the nearby market and yields Rs. 10,000 every month and running cost is Rs. 6,000

3. Business C which is to be done by going to the big city to work with a big distributor and yields Rs. 16,000 every month and running cost is Rs. 10,000

Version II:

1. Business A which is to be done at home and yields Rs.5,000 in sales every month and running cost is Rs. 1,000

2. Business B which is to be done by going to the nearby market and yields Rs. 10,000 every month and running cost is Rs. 7,000

3. Business C which is to be done by going to the big city to work with a big distributor and yields Rs. 16,000 every month and running cost is Rs. 14,000.

Rank these in order of increasing profit levels. If you get the ranking correct you will get Rs.100. [Enumerator: please show the respondent the paper with the 3 options and record his response].

2. Imagine a situation where your wife has managed to obtain a loan so finance is not a constraint. Consider the same business options that I just gave you plus the option of 'doing nothing'. Of the 4 options, which would you choose for her?

Before I talk to your wife I would also like to ask you to answer a question. Please let us know of the two possible answers to the following question. Please note that the

choices you make may be given as advice to your wife for the same question. If she gets the correct answer, she will earn up to Rs.200.

[Ask version 1/2/3/4 as randomised][1]

Please also look at the following pattern. Here are a group of pictures that follow some order. Can you guess what the next picture in this sequence will be? You have the following options. Again, let us know which two shapes could complete the pattern. Please note that the choices you make may be given as advice to your wife for the completing the pattern. If she gets the correct answer, she will earn up to Rs.200.

[Show version 1/2/3/4 as randomised][2]

[If correct profit ranking] Thank you for your time. You won Rs. 100 from your answer to the first question that I will hand to you now.

I will now like to talk to (female respondent) again to complete the survey with her.

[Enumerator: Please hand over the money won (and get proof of payment.]

[If incorrect ranking] Thank you for your time. Unfortunately, you did not rank the options correctly and therefore, I am unable to pay you Rs. 100.

I will now like to talk to (female respondent) again to complete the survey with her.

Step 2: Female respondent Enumerator: Communicate the following to the female respondent: I will now ask you a few more questions. Your answers in these questions can help you earn up to Rs. 200 so please answer carefully and honestly. Please ask for clarification if you do not understand any question. Your answers will remain completely confidential. None of the responses here will be recorded with your name. 1. There are 3 business opportunities: Version I:

1. Business A which is to be done at home and yields Rs.5,000 in sales every month and running cost is Rs. 2,000

2. Business B which is to be done by going to the nearby market and yields Rs. 10,000

---

[1]See end of the script

[2]See end of the script

every month and running cost is Rs. 6,000

3. Business C which is to be done by going to the big city to work with a big distributor and yields Rs. 16,000 every month and running cost is Rs. 10,000

Version II:

1. Business A which is to be done at home and yields Rs.5,000 in sales every month and running cost is Rs. 1,000

2. Business B which is to be done by going to the nearby market and yields Rs. 10,000 every month and running cost is Rs. 7,000

3. Business C which is to be done by going to the big city to work with a big distributor and yields Rs. 16,000 every month and running cost is Rs. 14,000.

Rank these in order of increasing profit levels. If you get the ranking correct you will get Rs.100. [Enumerator: please show the respondent the paper with the 3 options and record her response].

2. Imagine a situation where you have managed to obtain a loan so finance is not a constraint and you do not have to consider whether you will be able to obtain permission from your husband//male decision maker. From the business plans specified in step 1 (with the added option of 'doing nothing'), which one would you choose for yourself? [Enumerator: hand the paper to the respondent with 4 options and ask them to select. Once selected, put the answer in the envelope and seal it]. Please tick on the paper, fold it and then give it to me. I will put it in an envelope and seal it. This will not be revealed to anyone in your household and will only be known to the research team who will never tell anyone.

3. Consider the same business options as in step 2 (3 businesses plus the option to do nothing). Imagine again a situation where you have managed to obtain a loan so finance is not a constraint. Which of the 4 options will your husband/household head choose

for you? Your husband//male decision maker was asked to choose for you from these 4 options and you will get Rs.100 if your answer matches his.[Enumerator provide a new piece of paper with 4 options]. Please tick on the paper. [Enumerator: please enter on tablet her choice]

If she chooses the doing nothing option, then ask her why she chose this option: [Enumerator: do not prompt. Multiple responses are allowed. For example if she says she and her household members don't think it is suitable for her to run a business, then tick 1 and 2]

1. Husband/household head doesn't think it's suitable for her to run a business.

2. She doesn't think it is suitable to run a business.

3. Husband/household head thinks she is not capable.

4. She doesn't think she is capable.

5. There are other better uses of the money.

Advice taking

Part I: knowledge question [Randomise order between part I and part II]

We will now ask you a question for which if you give the correct answer you will get Rs.200. We will also offer you the opportunity to get advice on the answer for the question we ask you from your husband/household head or an expert with knowledge of the field we have asked you the question about. Please listen to the question first and then wait for us to offer you the opportunity to take advice before you give your answer.

[Ask version 1/2/3/4 as randomised and displayed on your tablet]

In this envelope there is a voucher for Rs.0, Rs. 50 or Rs. 100 for advice from either husband or an expert. We will now offer you to get advice from husband and/or an expert for giving up this amount from your winnings. We will open this envelope later to

reveal what amount is written in it and who you have the opportunity to get advice from but before that for all amounts, we will ask you what you would want to do.

Whatever you decide, we will implement it once the envelope is opened. Please note that the advice will be two correct choices in the opinion of the expert.

[Enumerator: make sure respondent understands that we will implement the choice that she makes now once the envelope is opened]

1. Would you be willing to pay Rs. 0 to get advice from your husband?

2. Would you be willing to pay Rs.50 to get advice from your husband?

3. Would you be willing to pay Rs.100 to get advice from your husband?

4. Would you be willing to pay Rs. 0 to get advice from an expert?

5. Would you be willing to pay Rs. 50 to get advice from an expert?

6. Would you be willing to pay Rs. 100 o get advice from an expert?

[Enumerator: Open envelope: Advice from husband/expert and voucher amount 0/50/100. Accordingly implement choice. If expert choice is written on the voucher and woman willing to take it for the voucher amount, show options B and D as two possible correct choices. If husband choice is written on the voucher and woman is willing to take it for the voucher amount, show the two cards the husband chose.]

Part II: Abstract reasoning question

We will now ask you a question for which if you give the correct answer you will get Rs.200. We will also offer you the opportunity to get advice on the answer for the question we ask you from your husband/household head or an expert with knowledge of the field we have asked you the question about. Please listen to the question first and then wait for us to offer you the opportunity to take advice before you give your answer.

The question is: [randomised] Here are a group of pictures that follow some order. Can you guess what the next picture in this sequence will be? You have the following

options. [Enumerator: Show the respondent the graphic cards and then ask them to select their best guess. Enter their guess here].

[Show and ask version 1/2/3/4 as randomised and displayed on your tablet.]

In this envelope there is a voucher for Rs.0, Rs. 50 or Rs. 100 for advice from either husband/male decision maker or an expert. We will now offer you to get advice from husband/male decision maker and/or an expert for giving up this amount from your winnings. We will open this envelope later to reveal what amount is written in it and who you have the opportunity to get advice from but before that for all amounts, we will ask you what you would want to do.

Whatever you decide, we will implement it once the envelope is opened. Please note that the advice will be two correct choices in the opinion of husband/male decision maker or the expert.

[Enumerator: make sure respondent understands that we will implement the choice that she makes now once the envelope is opened]

1. Would you be willing to pay Rs. 0 to get advice from your husband/male decision maker?

2. Would you be willing to pay Rs.50 to get advice from your husband/male decision maker?

3. Would you be willing to pay Rs.100 to get advice from your husband/male decision maker?

4. Would you be willing to pay Rs. 0 to get advice from an expert?

5. Would you be willing to pay Rs. 50 to get advice from an expert?

6. Would you be willing to pay Rs. 100 o get advice from an expert?

[Enumerator: Open envelope: Advice from husband/male decision maker or expert and voucher amount 0/50/100. Accordingly implement choice. If expert choice is written

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on the voucher and woman willing to take it for the voucher amount, show options B and D as two possible correct choices. If husband/male decision maker choice is written on the voucher and woman is willing to take it for the voucher amount, show the two cards the husband chose.]

Payment: [Profit ranking questions: Your answer matches that of your husband/male decision maker whom we asked earlier. Therefore, you win Rs 100./ Your answer does not match that of your husband/household member. Therefore we cannot pay you Rs. 100.]

[Your answer to the [knowledge and/or abstract reasoning question] was correct. You win (additional) Rs. 200 (or Rs. 400 if both correct)/ Your answer to the [knowledge/abstract reasoning question] was incorrect. Therefore you do not get the Rs. 200 from that question. Deduct the applicable cost of advice if the respondent has positive earnings and opted for advice.]

C.3.1 List of knowledge questions

The following questions were randomly asked to each household. A randomly selected question would appear on the enumerator tablet.

Version 1: Who has the highest wickets in one day cricket? A.Wasim Akram, B. Muttiah Muralithran, C. Shane Warne, D.Waqar Younis

Version 2: In medicine, which of these is usually denoted by 120/80 for an adult? A: Normal Pulse B: Normal Hearing C: Normal vision D: Normal Blood Pressure

Version 3: Starting from the junior most, arrange these ranks in the Pakistan Army in ascending order of seniority: 1. Lieutenant Colonel, 2. general, 3. Colonel, 4.Lieutenant General A.1243 B. 3421 C. 2431 D.1342

Version 4: Which of these cannot be the same for two different people? A. Skin Colour B. Fingerprints C. Blood Group D. Eye Colour.
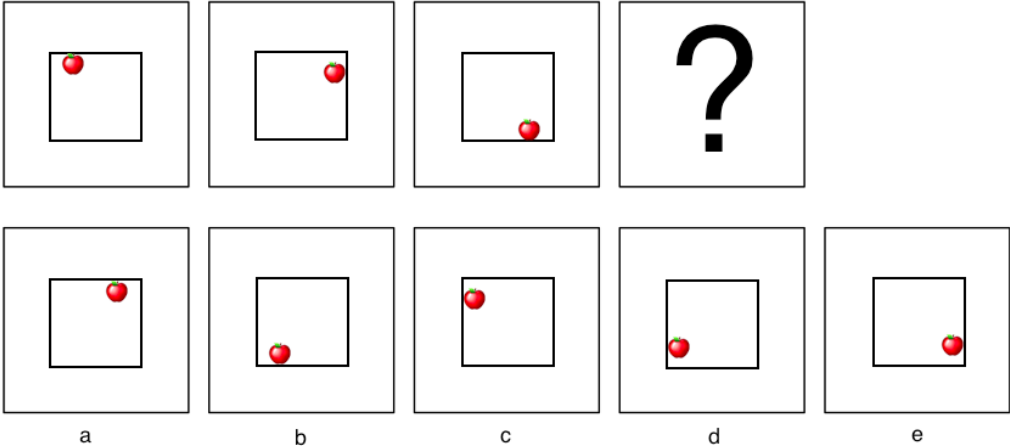
C.3.2 List of non verbal questions

The following questions were randomly asked to each household. A randomly selected question would appear on the enumerator tablet.
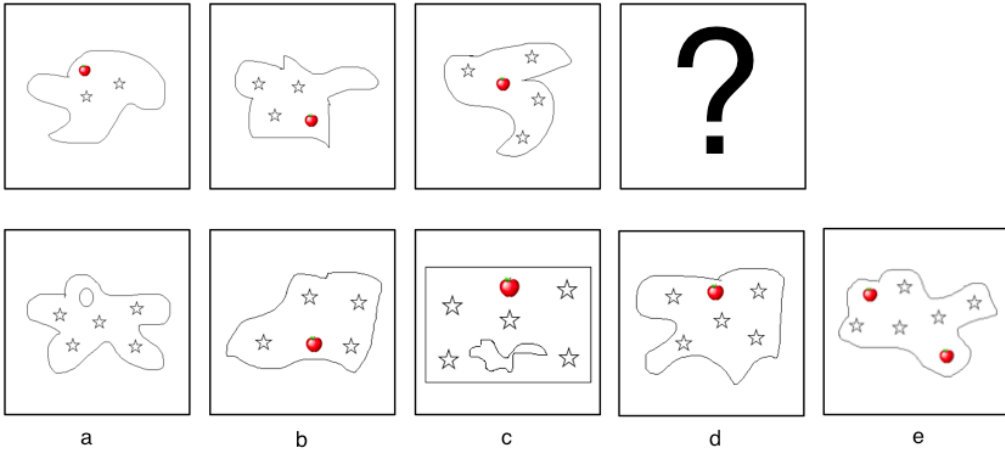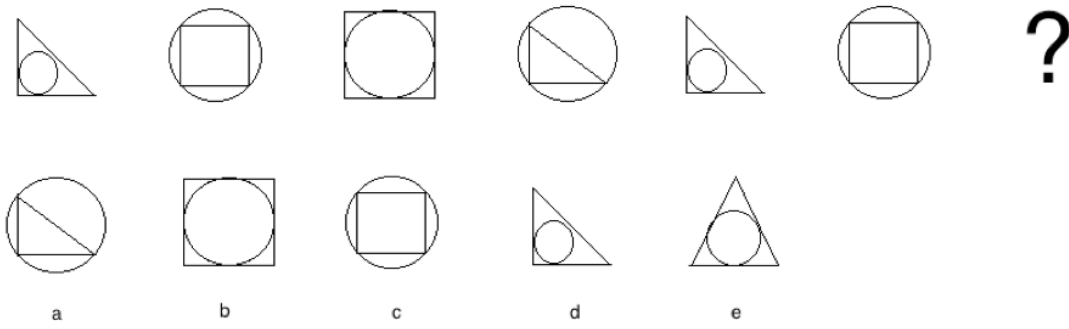
Non-verbal question: Version 1
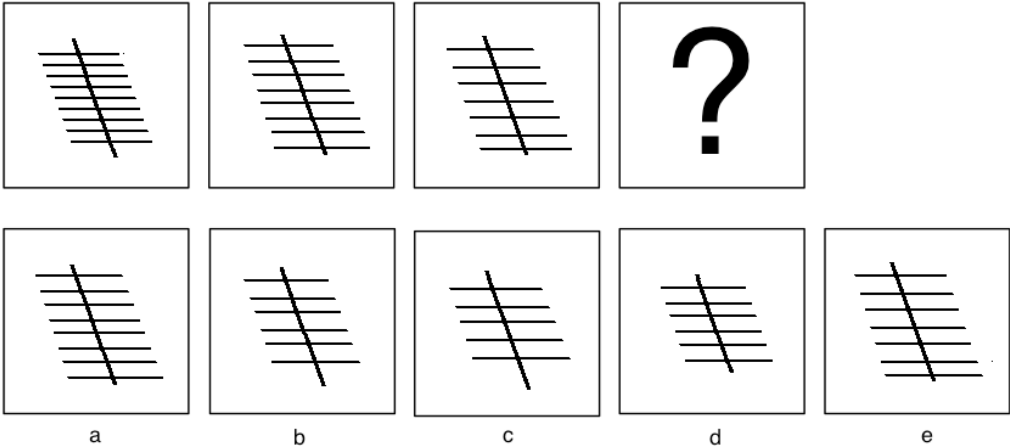
Non-verbal question: Version 2

Non-verbal question: Version 3

a b c d e

Non-verbal question: Version 4

a b c d e

Appendix D

Supplementary material

D.1   Baseline questionnaire (t=0)

CONFIDENTIAL

BASELINE HOUSEHOLD SURVEY

Kashf Foundation In Collaboration with Center for Research in Economics and Business, Lahore School of Economics

May - July 2014

Sr.#	Questions	Answers	Codes	Instructions
1	Enumerator Name and Code			Employee Kashf ID number
2	District Name and Code			01 – Bahawalpur 02 – Gujrat 03 - Sialkot
3	Branch Name			
4	Settlement Name			
6	Household no.			Last 4 digits of client NIC number
7	Contact number			
8	**Date of Interview**	**Day Month Year**		

Enumerator Instructions

1. If question calls for years and the answer is in months, please write 00
2. If the respondent **Does not want to answer**, please write 8888
3. If the respondent **Does Not Know**, please write 9999

Participant Consent

I am a researcher from the [LAHORE SCHOOL OF ECONOMICS/Kashf], and 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 Kashf. Your responses will be recorded with a number, and your name will not be shared with anyone.

This survey will take about 30 minutes. I will write down your responses after I ask each question.

If you don't know the answer, or do not want to answer, for 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.

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.]

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A. DEMOGRAPHIC INFORMATION

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? (go to A.7)
						1. Self-Employed
						2. Government/semi Govt 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)
						
						If not self employed, go to A.9
							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								

All following questions are for the main respondent, not for any other household member

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.10	If self employed, what is the type of business do you run?	Specify: _____
A.11	The number of completed years you have lived in this city/neighbourhood?	

B. ASSETS AND EXPENDITURE MODULE

ASSETS (BA)		
BA.1	How many rooms in this household are used for sleeping?	
BA.2	Main material of the dwelling floor: (Don't ask, record observation).	a. Katcha (Earth/sand/Rudimentary floor) b. Finished floor (Bricked /Cemented with marble chips/Tiles/marble floor)
BA.3	Main material of the roof. (Don't ask, record observation).	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 b. Owned by household member - Male member

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	c. Owned by household member - Female member d. Rented e. Rent free f. Government/subsidized rent g. Owner/Mortgaged or pledged Other (Specify) _____	Yes (1)	No (2)
BA.5	Do you have the following items in your house? **(Record what you can observe yourself, ask about the rest).**		
	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 conditioning		
	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 00 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----------------)

EXPENDITURE AND INCOME (BE)

BE.1	For each of the following, can you recall how much your household spent in an average month (Rs.)? **If any of these are not a *typical monthly expenditure* then record 00.**	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 ------------ Total monthly expenditure ------------

BE.2	For each of the following sources, what was your average household income?	1. Non-agriculture:
		  a. work outside home
		  b. business
		2. Home-based work (These may include handicrafts by women) ------------
		3. Children's work ------------
		4. Rental payments ------------
		5. Agriculture: ------------
		6. Remittances ------------

	(any money received on a regular basis from another city or country)
	7. Government payments (These may include BISP, Bait-ul-maal) ----------
	8. Zakat ----------
	9. Other: Specify ----------
	Total monthly income ----------

C. EMPOWERMENT

Ask questions C.1 – C.5, if woman unmarried

C.1	Who in your household decides whether you can start or continue to get education?	1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of persons decide 8. Woman concerned has no interest in study/work 9. Too old to study or work a. If yes to (9) above who in your family decides if you are too old to study or work? Specify using options 1 – 7 above _____
C.2	Who in your household decides whether you can seek or remain in paid employment?	1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of persons decide 8. Woman concerned has no interest in study/work
C.3	**Ask if not in paid employment and not seeking work** Why are you not actively seeking paid work?	1. Not permitted by husband or father to work outside home 2. Don't want to work outside home 3. Not enough job opportunities in the region 4. Pay too low

		5. Too busy doing domestic work 6. Too Old / Retired/ Sick / Handicapped 7. Does not posses any skill 8. Student 9. Other
C.4	Who in your household usually makes decisions about the following? (specify option in space given) 1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of persons decide	A. Clothing and footwear: _____ B. Medical treatment: _____ C. Recreation and travel: _____ D. Visit friends in the neighbourhood E. Join a credit group/committee F. Make small purchases for yourself (e.g. clothes) G. Make small purchases for others in the household (e.g. kitchen utensils) H. Join a credit group/committee I. Invest surplus money J. Your marriage
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	1. Very confident 2. It is possible / moderately confident 3. Not possible 4. Don't know (9)
If woman is married or has ever been married, ask questions C.6 – C.18, else end module		
C.6	How long have you been married/divorced/widowed? (Years)	_____
C.7	Who in your household decides whether children in your household can start or continue to get education?	1. Woman herself 2. Husband decides alone 3. Husband in consultation with her 4. Husband in consultation with other members of the household 5. Woman in consultation with other members 6. Other combination of persons decide
C.8	Who in your household decides whether you can seek or remain in paid employment?	1. Woman herself 2. Husband decides alone 3. Husband in consultation with her 4. Husband in consultation with other members of the household

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		5. Woman in consultation with other members of the household 6. Other combination of persons decide 7. Woman concerned has no interest in study/work 8. Too old to work
C.9	**Ask if not in paid employment and not seeking work** Why are you not actively seeking paid work?	1. Not permitted by husband or father to work outside home 2. Don't want to work outside home 3. Not enough job opportunities in the region 4. Pay too low 5. Too busy doing domestic work 6. Too Old / Retired/ Sick / Handicapped 7. Does not posses any skill 8. Student 9. Other
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	1. Very confident 2. It is possible / moderately confident 3. Not possible 4. Don't know (9)
C.11	Who in your household usually makes decisions about the following? 1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of persons decide	A. Clothing and footwear: _____ B. Medical treatment: _____ C. Recreation and travel: _____ D. Visit friends in the neighbourhood E. Join a credit group/committee F. Make small purchases for yourself (e.g. clothes) G. Make small purchases for others in the household (e.g. kitchen utensils) H. Join a credit group/committee I. Invest surplus money J. Your marriage
C.12	Have you ever given birth?	1. Yes 2. No (skip to C.17)
C.13	During your pregnancy, did you ever consult someone for pre-natal care?	1. Yes 2. No

C.14	If yes to C.11, where did you go for this consultation?	1. Clinic (doctor/nurse) 2. Traditional midwife 3. Homeopathic clinic 4. Dispensary 5. Relative/friends 6. Other (Specify): _____
C.15	During your pregnancy, did you ever consult someone for post-natal care?	1. Yes 2. No
C.16	If yes to C.13, where did you go for this consultation?	1. Clinic (doctor/nurse) 2. Traditional midwife 3. Homeopathic clinic 4. Dispensary 5. Relative/friends 6. Other (Specify): _____
C.17	Who in your family decides whether you can use birth control methods?	7. Husband alone 8. Woman herself 9. Husband & woman jointly 10. Mother of woman or husband 11. Nobody 12. Menopausal/infertile 13. Other
C.18	Who in your family decides whether you should have more children?	1. Husband alone 2. Woman herself 3. Husband & woman jointly 4. Mother of woman or husband 5. Nobody 6. Menopausal/infertile 7. Other 8. It is in the hands of God

D. COMMUNITY INTERACTION

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D.1	Have you or any one in your household participated in Kashf's training	1. Yes 2. No (skip to D.3)
D.2	How frequently did you meet the group members in this product	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months (check with Kashf if there were mandated meetings)
D.3	Have you or any one in your household participated in a community mobilization/training programme of another organization?	1. Yes 2. No (skip to D.5)
D.4	How frequently did you meet the group members in this product	1. Once a week 2. Twice a month 3. Once a month 4. Once in six months
D.5	Have you or anyone in your household participated in community savings product	1. Yes 2. No (skip to D9)
D.6	How much was each committee payment?	Rs _____
D.7	What was the frequency of the payment?	
D.8	How long was the committee for?	
D.9	In the last year, did your household experience	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): _____ **If no to all of the above, go to next module.**
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.	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.
D.11	What was the nature of this assistance?	1. Monetary assistance 2. Non-monetary assistance (clothes, medicine, food, etc)

E. CURRENT LOANS

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E.1	How many outstanding loans does the household have?		**If none, skip to Question E.8**	

Ask E.2 – E.6 for all outstanding loans

	E.2 For what purposes did you take out the loan	E.3 From whom did your household take the loan?	E.4 How long ago did you take the loan? (in months)	E.5 Who decided to take this loan? (record line number from module A)	E.6 Did you have to give any collateral/guarantee for the loan?
	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 15. Education 16. Home Construction 17. Purchase of plot 18. Jewelry purchase 19. Regular consumption	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 (village) 7. Moneylender (here) 8. Friend 9. Neighbor 10. Shopkeeper 11. Your client 12. Your source for input 13. Cooperative 14. Finance company 15. Provident Fund 16. Other, SPECIFY			1. Yes 2. No **After this question, skip to Q E.9**
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			
E.9	Has the household ever had a loan before?	1. Yes 2. No			
E.10	Does anyone in your household have a bank account:	1. Yes 2. No			

E.11	Do you, or anyone in the HH, have an insurance policy	1. Yes a. Health b. Life c. Other (specify): _____ 2. No

F. CURRENT AND PAST BUSINESS INFORMATION (IF ANY - TO BE COLLECTED FROM LOAN APPLICANT)

F.1	Have you ever worked as the following in the past:	1. Paid employee **(go to QF.1 and end)** 2. Home based business 3. Self-owned business out of the house
F.2	If yes to F.1, how long was this for? (months)	
	Ask questions F.3 – F.5 only if had a business (at home or out of the house)	
F.3	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 (Specify): _____
F.4	In what capacity were you involved	1. Owner 2. Partner
F.5	Why did the business shut down?	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: _____

G.1	How able were you to understand an accurately answer the questions in this survey?	1. All 2. Most 3. Some 4. Not much

D.2 Follow-up questionnaires (t=1,2)

CONFIDENTIAL

ENDLINE 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			*As per baseline listing*
4	Area Name (muhalla)			
5	Respondent Name (5a) and Code (5b)			*As per baseline listing*
6	Contact number of the respondent			
7	Address			
8	**Date of Interview**	**Day Month Year**		
9	**Reason for respondent being unavailable for the interview (not observation)**			

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	**106**
Jalal Pur Jattan	111	Yazman	104
Khankah Sharif	105		

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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 surveya bout 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 (**go to A.7**)
						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)
						If not self employed, go to A.9
							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								

All following questions are for the main respondent, not for any other household member

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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: _____)

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B. ASSETS AND EXPENDITURE MODULE

ASSETS (BA)

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

4

BA.3	Main material of the roof. **(Don't ask, record observation).**	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? **(Record what you can observe yourself, ask about the rest).**	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	

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				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 ------------
EXPENDITURE AND INCOME (BE)				

BE.1	For each of the following, can you recall how much your household spends in an average month (Rs.)?
	If any of these are not a *typical monthly expenditure* then record 0000.
				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 ---------------

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

First name: _____   BE.3a

Line number from the roster: _____   BE.3b |

C. EMPOWERMENT

Ask questions C.1 – C.5, if woman unmarried

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

200

7

8

C.2	If you are working, who in your household decides whether you can seek or remain in paid employment?	work? Specify using options 1 – 7 above _____ 1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of people decide 8.
C.3	**Ask if not in paid employment and not seeking work** Why are you not actively seeking paid work?	1. Not permitted by father to work outside home 2. Don't want to work outside home 3. Not enough job opportunities in the region 4. Pay too low 5. Too busy doing domestic work 6. Too Old / Retired/ Sick / Handicapped 7. Does not posses any skill 8. Student 9. Other (specify):
C.4	Who in your household usually makes decisions about the following? (specify option in space given) 1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of people decide	A. Clothing and footwear: _____ B. Medical treatment: _____ C. Recreation and travel: _____ D. Visit friends in the neighbourhood _____ E. Make small purchases for yourself (e.g. clothes) _____ F. Make small purchases for others in the household (e.g. kitchen utensils) _____ G. Join a credit group/committee _____ H. Invest surplus money _____ I. Your marriage _____ J. Loan from an organisation _____
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	1. Very confident 2. It is possible / moderately confident 3. Not possible 4. Don't know

If woman is married or has ever been married, ask questions C.6 – C.11, else end module

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?	1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of persons decide 8. Woman concerned has no interest in study/work 9. Woman concerned is too old to work
C.8	Who in your household decides whether you can seek or remain in paid employment?	1. Woman herself 2. Head/Father of the household decides alone 3. Head/Father in consultation with his/her spouse 4. Head/Father in consultation with the woman concerned 5. Head/Father and spouse of the head in consultation with the woman concerned 6. Head/Father and other male members decide 7. Other combination of persons decide 8.
C.9	**Ask if not in paid employment and not seeking work** Why are you not actively seeking paid work?	1. Not permitted by husband to work outside home 2. Don't want to work outside home 3. Not enough job opportunities in the region 4. Pay too low 5. Too busy doing domestic work 6. Too Old / Retired/ Sick / Handicapped 7. Does not posses any skill 8. Student 9. Other
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	1. Very confident 2. It is possible / moderately confident 3. Not possible

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	4. Don't know (9)
	A. Clothing and footwear: _____
	B. Medical treatment: _____
	C. Recreation and travel: _____
	D. Visit friends in the neighbourhood
	E. Make small purchases for yourself (e.g. clothes)
	F. Make small purchases for others in the household (e.g. kitchen utensils)
	G. Join a credit group/committee
	H. Invest surplus money
	I. Loan from an organisation _____
C.11	Who in your household usually makes decisions about the following?
	1. Woman herself
	2. Head/Father of the household decides alone
	3. Head/Father in consultation with his/her spouse
	4. Head/Father in consultation with the woman concerned
	5. Head/Father and spouse of the head in consultation with the woman concerned
	6. Head/Father and other male members decide
	7. Other combination of persons decide

D. COMMUNITY INTERACTION

D.1a	Have you or any one in your household participated in a community mobilization/training programme of anyorganization *in the last one year?*	1. Yes 1. No (skip to D.4a)
D.2a	If yes to D1a, please list the organisations(as many as needed)	A. _____ B. _____ C. _____ D. _____
D.3a	How frequently did you meet the group members in this programme? 1. Once a week 2. Twice a month 3. Once a month 4. Once in six months (fill this in the same order as the listing of the organizations in D2.a)	A. _____ B. _____ C. _____ D. _____
D.4a	Have you or anyone in your household participated in committee productin committee productin *the last one year since May?*	1. Yes 2. No (skip to D9)
D.5a	How much was each committee payment? (multiple responses allowed)	A. Rs _____ B. Rs _____

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		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): _____ **If no to all of the above, go to D.12.**
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 Kashf to 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

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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? *[Enumerator: This question refers to loans other than the loans Kashf provided for new business start-ups a year ago]*	**No. of loans** _____ **If none (0000), skip to Question E.8**

Ask E.2 – E.6 for all outstanding loans. Use a separate row for each loan

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? **After this question, skip to Q E.10**

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	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?	G.4 In what capacity are you involved?	G.5 Who is the business partner?
	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): _____	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)	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. _____

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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? **Go to next section after this question.**	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

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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. lessthan 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.

H9e	0, 8, 6, 2, 7, 3, 1.	2: Respondent does not repeat numbers correctly. 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.
H10. *[Enumerator: Ask H10a and H10b only if woman currently has a business as answered by the respondent in question G.1]*		
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?
[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] | |

Code	Item	Rs.
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)
	Add up to total amount in I.1
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.

15d	I used income from a business that I own.
15e	I used income from a business that my spouse owns.
15f	I used income of someone else (excluding spouse) in my household.
15g	I used income/savings from someone outside of my household.
15h	I borrowed money from family or friends.
15i	I borrowed money from some other source.
15j	I sold one or more of my possessions to obtain the money.
15k	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)

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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)

Enumerator: This module is only to be administered to people who were approved but never received the loan in the list provided to you (indicated with a 2 against their name).

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:]

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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 asnwer 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)