Women and Household Cash Management: Evidence from Financial Diaries in India

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Abstract : Using an innovative data-set that involved 90 poor women logging-in daily household financial diaries for a period of eleven months in 2013-14 in the town of Ramanagaram, Karnataka, India; we address the following question – do women use money differently from men? Comparing weekly cash-expenses of 19 women headed households with similar male-headed households; we arrived at several nuanced conclusions. For example, among the poorest households, women showed greater tendency towards spending household cash on food-items and they had lower spending on fuel and entertainment as compared to the male-headed households. Among the micro-finance borrowers in our sample, the poorest among the women headed households showed a spending on jewelry, in contrast to the borrowers in the male headed households spending on household assets. Financial diaries data being more fine-grained and detailed than one-off surveys, allows us to generalize these results for the urban-poor working in the informal sector in India.

Keywords: women, financial diaries, women-headed households, Micro-finance India.

I. INTRODUCTION

Do women use money differently from men? This question is at the heart of research trying to decipher whether increase in female incomes within a household, especially poor households, leads to different outcomes in terms of health, nutrition and education. A question related to this, but with a broader perspective also gets asked about women as decision makers in public spheres (village chief or the local municipality head) - do public funds get diverted to more meaningful infrastructural usage like drinking water and schools when women are in charge of spending them (Chatopadhyay and Duflo, 2004)? A more controversial issue surrounding this question is tackled at length in vast microfinance literature, of whether the promotion of micro credit to women leads to their economic empowerment (Mayoux, 1999). There is increasing evidence being cited of how microfinance programs do not take into consideration the wider aspects of gender relations in a family (Goetz & Sengupta, 1996, Rahman, 1999 and Johnson, 2005). This question also lies at the root of contentious feminist debates about whether work can, if at all, bring about positive changes in a woman's life or her position in the household and society, especially in the lives of poor women living in developing economies (Mayoux 1995, Kabeer 1997).

Majority of the studies trying to answer these questions resort to household or individual surveys eliciting information on income, assets, expenditure, work status, health, education and financial status, response to shocks and some indicators on decision making. Surveys have been used to find more nuanced relationships between the kind of work that women do (work from home, work in the informal sector, work in garment factories) and outcomes on poverty (Kantor, 2008). Lake and Munshi (2011) for example, have gone on to analyse how female earnings impact the more long-run decisions about the educational attainment of children, their marriage choice and their future mobility. We believe that surveys along with other mixed methods (focused group discussions, unstructured interviews and narratives with women) do give a snap-shot about household characteristics and their economic outcomes. However, imputing causality between female earnings and measurable outcomes like assets, health, education, mortality, or even the more difficult to measure outcomes like agency and power to negotiate might be spurious, due to certain over-arching contextual factors like social norms, traditions or culture (Razavi, 1999). To take into account this problem of agency while answering our question: "do women inherently handle money differently from men?"; we have to go beyond surveys and other methodologies that give a snap-shot picture of the households at a point of time. We need to understand how women handle money and how they manage their household expenses when they are given complete choice and freedom in running their households on a day-to-day basis. Would it be any different from situations when they may not be having this choice? The data calls for a more fine-grained, dynamic methodology, focusing on periodic household cash flows. The methodology of financial diaries among the poor, pioneered by Stuart Rutherford (2001) can be aptly used to answer this question. This methodology involves daily tracking of cash inflows and cash

outflows of poor households with a view to recording the financial transactions of the household (income, expenditure, saving, borrowing and investment). It is compiled by means of periodic (weekly or fortnightly) interviews with a chosen sample of households over a long period of time, generally a year. Financial Diaries as an instrument for study of the financial practices of the poor and very poor was first carried out in Bangladesh by Stuart Rutherford and in India by Orlanda Ruthven and was extended by Daryl Collins in South Africa (Collins, et.al, 2009).

II. CONTEXT – RAMANAGARAM FINANCIAL DIARIES

The Ramanagaram Financial Diaries was a research project spanning around 18 months (including the pilot) that we carried out in 2007-09 in Ramanagaram town in the southern state of Karnataka, India. We initiated this project, specifically to understand the daily cash flows of urban poor households (many of who had borrowed moneys from MFIs) with the aim of tracking the actual use made of these MFI loans, as opposed to the stated purpose (Reference Withheld, 2010). Ramanagaram is a town, 60 kms. away from the city of Bangalore, on the Bangalore-Mysore highway in Karnataka. It was once known as the "silk capital of the country", with its proliferation of silk weaving units. Today, with the downturn in the indigenous silk industry, Ramanagaram is seeing an increasing informalisation of these silk or 'filature' units. Employment opportunities are not so easy to come by as Bangalore, and migration to Bangalore has increased. Two contiguous poor areas in Ramanagaram – Hajinagar and Ambedkarnagar, having a proliferation of Women's Microfinance Groups were chosen to be our study area and our initial participants would come from such MFI credit-groups. The financial diaries methodology involves repeated interactions with participants, giving an opportunity to researchers to get to know their respondents fairly intimately. It also involves inbuilt validation and clarification (Collins, et. al. 2009), making it more accurate than one-off surveys. Thus, smaller sample sizes through thick descriptions and rich insights can provide greater justification for generalizing the results.

There were 19 women headed households and 71 male headed households in the sample. Of the total 90, we had 66 who had borrowed from multiple MFIs. Of these 66 indebted to MFIs, the women headed households were 14 in number. There were six MFIs operating in that area during the study period, all Grameen style, lending only to women groups. Of the 24 households that had not borrowed from MFIs (among them were five woman headed households), there were other informal borrowings from ROSCAs (Rotating Savings and Credit Associations, called chitties in the local language), private financiers and moneylenders (called funds). Such informal loans were also found among all those who had borrowed from MFIs.

The occupational profiles of the diary-writers are given below. All of them were working in the informal sector on daily wages, in the silk units of Ramanagaram (filature) or other sporadic daily wages jobs as and when available (coolie). Some were involved in petty trading to generate some additional income (by selling vegetables, milk) or as a part of family run informal businesses (selling saris, brass vessels, bangles). Agarbatti (incense stick) and beedi (indigenous cigarettes) rolling are a type of work-from-home job contracts endemic to the informal sector in India. These occupation profiles have been culled out from the cash inflow sources given in their diaries. Not only did the women have multiple occupations during a year, but they also had it for sporadic days, intermittently during the study period. Most of the incomes, needless to say, were low (below the minimum wages, in many cases) and unpredictable.

Table 1: Occupations of the diary writers

Occupations	Households
Housewives	28
Filature	12
Petty businesses (petty trade in vegetables, saris, cloth, vessels, bangles, milk)	13
Daily wages work (coolie)	14
Agarbatti and beedi rolling	9
Tailoring	5
Tuitions, typists, outreach workers	5
Sweepers	4
Total	90

III. DATASET AND METHODOLOGY

At the end of the study period, we collated the data from daily diaries kept by 90 households for 11 months from September 2008 to July 2009. Data for August 2009 was left out, since we got data only for 15 days of August from some households. Since the diaries were deliberately kept simple and unstructured, we got detailed information covering hundreds of variables under cash outflows. For the purpose of this paper, we concentrate these cash outflows of the households - on the 37 meta-variables that we collated as cash outflows related to consumption in the household. This meta classification was done after we got the more fine-grained information from the diaries. This included expenses on assets that they purchased during the year, food items (vegetables, staples – rice and grains, milk, meat, cooking-oil, snacks), health expenses, purchase of clothes, cosmetics (mostly items of personal hygiene like soaps, shampoos, hair-oil), accessories (footwear, bags), consumables (matchboxes, bulbs, candles, mosquito repellant coils), eating-out (food intake outside of home while working), education, social and religious expenses, travel, gifts, and jewelry, among others. All missing data was replaced by zero. However, we

emphasize that these zeroes cannot be technically treated as 'missing data' in the diaries as these women had such meagre resources that they were quite particular in jotting down any non-zero expenses and the zero expense on a particular item is therefore revealing in itself. The diary maintained daily data, but that brought in too much granularity and sparsity (especially because many entries on a daily basis were zeros); therefore we added every consecutive seven days data into a weekly variable, and used these weekly variables for analysis. The data size we ended up with consisted of 37 variables for a period of 47 weeks for 90 households, namely, 4230 data points with 37 dimensions each, or a total of 47x37x90 or 1,56,510 individual data points.

IV. ANALYSIS – HOUSEHOLD CASH OUTFLOWS IN FEMALE AND MALE HEADED HOUSEHOLDS

4.1 Cash outflows in households headed by women – are they different?

We had 19 women headed households in our sample of 90 households. Of the 19 woman headed households, five were employed in filature units, four each did daily wages coolie jobs and beedi rolling at home, respectively. Three of them were employed in petty trade of selling vegetables, cloth and bangles. Two of them were sweepers with the Ramanagaram Municipality (on contract basis), and one of them did tailoring jobs at home. The female headed households had similar occupational profiles that was found in our larger sample (in table 1). The household size of the female headed households was similar to that found in the male headed households, namely, between 4 and 5 members. However, the female-headed households were single-earner households, unlike the many male-headed households. Education profiles were also comparable for the two groups. In the female headed households set, majority of the primary income earners were illiterate (47 percent), followed by education up to class V (32 percent) class VIII (17 percent). The corresponding figures in the male dominated households were 42 percent, 27 percent and 22 percent respectively. Thus, about a little less than half the income earners in both groups were illiterate.

Table 2: Analysis of household cash outflows - woman headed households (19)

PCA of household cash outflows - woman headed households (19)					
First Axis		Second Axis		Third Axis	
Variables	Correlation	Variables	Correlation	Variables	Correlation
Vegetables	-0.77609	Gutkha	-0.63032	Misc.	-0.56552
Milk	-0.72526	Eating out	-0.56171		
Spices	-0.63724	Religious	-0.50708		
Cosmetics	-0.59086				
Snacks	-0.58058				

Table 3: Analysis of household cash outflows - male headed households (71)

PCA of household cash outflows - male headed households (71)					
First Axis		Second Axis		Third Axis	
Variables	Correlation	Variables	Correlation	Variables	Correlation
Misc.	0.70178	Entertainment	0.73983	Eating out	-0.71847
Vegetables	0.65128	Accessories	0.59804	Gutkha	-0.59617
Accessories	0.6034	Grains	0.5162		
Sweets	0.54441	Given to husband	-0.51206		
Given to husband	0.54328				
Fuel	0.54314				
Grains	0.52193				

We observe from table 2 that the first axis giving the primary expenses of the women headed households comprises mostly food items – vegetables, milk, spices and snacks, together with an interesting item: cosmetics. Cosmetics, in this case, refer to most items of personal hygiene – soaps, shampoos and hair-oil. This is understandable given these households are poor and therefore most of their cash inflow gets used up towards everyday food.

4.2. MFI repayments and cash outflows in households headed by women – are they different?

One of the factors that could affect cash flows in these households was the access to MFI loans, given through all women credit groups. Ramanagaram, like the rest of south India, was to witness a huge surge in MFI expansion around the second half of 2000 (Shetty, 2012). Most of these MFIs were for-profit Grameen replicators (following the methodology of the Grameen

Bank – lending to all women credit groups and entailing rigid, weekly repayments). In our sample, we had 66 households where the women were part of such MFI groups and had taken one or more MFI loans during that year. Every week, a fixed cash outflow were therefore seen in their diaries as repayments towards these MFI loans. Impact studies citing the impact of these MFI loans on borrowers, especially the woman borrowers shows mixed results (Rahman, 1999 and Johnson, 2005). We were able to test this specifically, not in terms of the loan impacts but in terms of the cash-flows, by contrasting the cash flows of MFI borrowers, all women, but those who were in charge of their woman headed households (14 in number) vis-à-vis those who were in male-headed households (52 in number). We give below the table showing the cash outflows of the 14 woman headed households who have borrowed from MFIs and compare them with the 52 male-headed households where our diary writers were MFI borrowers. Though the number of households is only 14, the actual data points are much larger in number as we flatten the data on a weekly basis; in particular we have 47x14 = 658 data points, each point being 37 dimensional (the number of expense variables was 37).

Table 4: Cash outflows in woman headed households who are MFI borrowers (14)

PCA of household cash outflows - woman headed households who are MFI borrowers (14)					
First Axis		Second Axis		Third Axis	
Variables	Correlation	Variables	Correlation	Variables	Correlation
Vegetables	-0.82725	Guthka	-0.55267	Meat	-0.51622
Milk	-0.80118	Eating out	-0.54507		
Consumables	-0.63515	Religious	-0.52676		
Spices	-0.62689				
Snacks	-0.57728				
Cosmetics	-0.55702				
Grains	0.52193				

Table 5: Role of debt in cash outflows – male headed households

PCA of household cash outflows - MFI borrowers among male headed households (52)					
First Axis		Second Axis		Third Axis	
Variables	Correlation	Variables	Correlation	Variables	Correlation
Misc.	0.74247	Misc.	0.50151		
Vegetables	0.69415	Accessories	0.62122		
Accessories	0.58406	Grains	0.68216		
Grains	0.57587	Entertainment	0.79231		
Given to Husband	0.56346				
Sweets	0.55898				
Fuel	0.55661				
Entertainment	0.51456				
Milk	0.51264				

Comparing table 4 with table 5 above, i.e. comparing the woman-headed and male-headed households that are MFI borrowers, we again find that the woman-headed households are spending more on cosmetics, eating out, consumables, meat, and religious expenses. It is also interesting that "gutkha" (an addictive good) shows up for both sets after an MFI loan! The male-headed households, despite loans being given to women in their households, continue to show money being given to husbands, accessories, fuel and entertainment. The item "money given to husbands" and its relevance to MFI borrowings will be discussed in the later section.

4.3 Asset ranking and cash outflows in households headed by women – are they different?

The analysis so far considered the houses purely based on gender controlling for access to MFI borrowings, without any reference to their economic status. We now group the households according to their assets. We give below the list of assets owned by the households. Assessing asset indices from this information is a well-known problem (Filmer and Scott, 2008) and several techniques have been suggested. We improve upon Morris, et.al. (2000), where we mark every asset as a categorical variable; with a yes-no marker (that is, we give no importance to the quantity of the asset, possession of asset in any number is considered equivalent). We assume that an asset that is present in a large number of households has less distinctive features than an asset, which is present in less number of households. That means, an asset, which is present in less number of households, gets greater weight.

V. DISCUSSION

Luke and Munshi (2010), in talking of women as agents of change mention a common perception that 'money in the hands of women is used differently than money in

the hands of men'. Using innovative data from financial diaries tracing the daily cash flows from 90 poor households in Ramanagaram town, in Karnataka state of India between September 2008 and July 2009, we were in position to make a more fine-grained analysis of this assertion. In these 90 households there were 19 women headed households, where the woman was the primary wage earner and the person responsible for making the major financial decisions for the household. In the remaining 71 households, the man was the main bread-earner, and the woman either was a housewife or the secondary wage earner. We compared the consumption related cash flows between these two sets of households to see if woman take their consumption decisions differently. All our diary-writers were the women in the households. Women took the decisions relating to day-to-day cash flows in the women-headed households. Though we can point to the presence of 'agency' here – it was not often clear-cut, since it not always their choice. In our conversations with L, one such woman left to fend for the family by her husband who was absconding, told us "He married me and made me work. I am even repaying his loans. I made a mistake." We got to hear similar sentiments from several women in this group.

VI. CONCLUSION

In this paper, we try and answer an important question regarding decision-making by women. Do women especially those in the economically poor households use money differently in taking day-to-day decisions about household consumption? This question has a bearing on gender based policy interventions and also on livelihoods focused on the women among the poor, including micro-credit. If we could show that women are making "better" use of money in their day-to-day spending decisions, then it would be worthwhile having such interventions. We were able to answer this question, through an innovative data set where 90 poor households in the urban town of Ramanagaram, in the Karnataka state in southern India maintained daily financial diaries about their cash flows for 11 months from September 2009 to July 2009. We compared the data from the diaries of 19 women headed households with the 71 male-headed households, over several factors. The robustness of our results comes from the methodology of financial diaries. This methodology gave us daily data from each of these 90 households for a period of 11 months. We collapsed the daily data into weekly data, and the data set consisted of data points on 37 consumption variables over 47 weeks for each of the households considered.

REFERENCES:

[1] Chattopadhyay, R., &Duflo, E. (2004). Impact of reservation in Panchayati Raj: Evidence from a nationwide randomised experiment. Economic and Political Weekly, 979–986.

[2] Collins, D., Morduch, J., Rutherford S., and Ruthven, O.(2009).Portfolios of the Poor: How the World's Poor Live on $2 a Day. Princeton University Press.

[3] Filmer, Deon and Scott, Kinnon. (2008).Assessing Asset Indices. Policy Research Working paper 4605, World Bank Development Research Group, Human Development and Public Services Team; April 2008; pp 1 – 63.

[4] Garikipati, S. (2012). Microcredit and Women's Empowerment: Through the Lens of Time-Use Data from Rural India. Development and Change, 43(3), 719–750.

[5] Garikipati, S. (2008). The Impact of Lending to Women on Household Vulnerability and Women's Empowerment: Evidence from India. World Development, 36(12), 2620–2642. Goetz, A., &Sengupta, R. (1996). Who takes the credit? Gender, power, and control over loan use in rural credit programs in Bangladesh. World development, 24(1), 45–63.