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An Endless Bargain: A Participatory Approach to Understanding Intra-Household Finance

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Abstract

While factors influencing intra-household dynamics, preferences of individual members and their impact on household financial decision making have been studied, the actual process of bargaining, and decision making process remain uncaptured. We take a qualitative approach to address this gap, and do so in two distinct ways. We first conduct a photo elicitation session (n=55) to understand gender differences in financial responsibility, dynamics in purchase and saving decisions, and conflict resolution. Then, using findings from the photo elicitation, we develop a gamified instrument to observe financial decision making in real-time between couples (n=32). We find that husbands and wives have separate spheres of responsibility within the household which determines their financial decision making ability. Further, we find that income, investment and children motivate “big” financial expenditures, while savings is understood as an act of cutting expenses. Finally, we discuss the opportunities to employ new qualitative methods to study and capture behavioral dynamics.

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1. Introduction

Multiple economic models have been proposed to explain intra-household financial decision making processes and decipher the impact of both economic and non-economic factors on the role of women in household financial decision making (Browning et al., 2014). However, such quantitative approaches have certain limitations. Results are highly sensitive to small changes in indicators or who is reporting them (Peterman et al., 2021), but also operate within the constraints of economic models and are unable to capture the dynamics of the decision making process (Agarwal et al., 1997; Katz, 1997). In response, calls have been made towards a more qualitative approach to appreciate the nuances of spousal debates and bargaining processes in intra-household finance (Agarwal et al., 1997). Only few attempts have been made to address this gap (Dema-Moreno, 2009; Wood et al. 2012) and the focus is limited to developed countries, while much of the developing context remains unexplored.

The objective of this paper is to understand gender differences in intra-household financial decision making in India using a qualitative approach. We first conduct photo elicitation to understand gender differences in financial responsibility, dynamics in purchase and saving decisions, and conflict resolution. Then, using findings from the photo elicitation, we develop a gamified instrument to observe financial decision making in real-time between couples. Our research adds to the growing literature on gender and bargaining processes in intra-household financial decision making in the developing context and does so using a qualitative approach. Further, it makes methodological contributions: to our knowledge, this is the first attempt to employ visual methodologies to study intra-household financial dynamics in India and develop a gamified approach to conducting participant observation research.

The paper is organized as follows: we discuss methods and findings from photo elicitation first (Section 3 and 4), followed by gamified instruments (Section 5 and 6). Section 7 concludes.

2. Literature Review

2.1 Economic models of household financial decision-making

Initial work on intra-household financial decision making was based on the unitary model, which proposes that all household resources are pooled and final allocation for consumption and production is made by an altruistic head of the household, who embodies the household preferences (Becker, 1981). However, new literature has established that the workings of a multi-member family household, especially those formed through marriage, is far more complex, as heterogeneity in preferences, along with individual, family, and social factors, influence financial decision making processes (Bertocchi et al., 2014).

In response to the unitary model, bargaining models of financial decision making have been proposed, where some form of “bargaining” occurs between the members of the household (Agarwal, 1997). The co-operative bargaining approach suggests that husbands and wives pool their income before bargaining over ways to use that income for their respective preferences (McElroy & Horney, 1981). The non-cooperative model further relaxes assumptions to accommodate factors such as unenforceable contracts, asymmetric information between parties, and non-pareto efficient outcomes (Browning et al., 2014). The “separate-sphere” approach tries to combine both approaches (Agarwal, 1997) by suggesting that a couple cooperates over some joint objectives, while splitting into “separate” spheres in others. The division of such responsibility happens without negotiation and is determined by factors influenced by social norms. Negotiation occurs over joint goals, such as child care and bargaining, in the manner of a cooperative game (Lundberg & Pollak, 1993).

Bargaining models operate under the assumption that “bargaining” capacity can be estimated using an individual’s resources and characteristics. Research has demonstrated that couples who are unequal in terms of income, education, and employment status were less likely to make joint financial decisions (Mader & Schneebaum, 2013). Increasing the share of female income in the household leads to resource allocation that better reflects women’s preferences (Rangel, 2006; Duflo, 2003), greater influence in investment (Sung & Hanna, 1998). Some suggest that couples with the

same level of education are more likely to take decisions on “general” items, everyday purchases, borrowing, and purchases for children together (Mader & Schneebaum, 2013), while others show that additional years of male education reduce the chances of couples pooling economic resources (Lyngstad et al., 2011). Others have found that benefits of factors such as age, education, or contribution to household income on women’s decision making can be subdued if women live in societies with gender unequal norms (Mabsout & Van Staveren, 2010). More recently, research has shown that cognitive factors and personality traits influence women’s role in financial decision making (Johnston et al., 2016).

With regards to Indian households, empirical evidence points to the role of social embeddedness and variation in income, in determining financial access and decision-making (Roy & Sapre, 2016; Sahasranaman et al., 2019). The NFHS-4 survey (2105-16) provides insights into *how much* and *what kind* of decisions are taken individually or jointly. As for major household purchases, 65.3% of females and 67% of males report that decisions are taken together, while 21.4% of females and 23.9% of males reported that husbands take such decisions alone. The health care decision maker varies within the household. Only 12% of the married women reported that they make decisions regarding their own health, while 34% of males report independently making health decisions.

Studies have tried to assess factors that explain the distribution of decision making authority in the Indian household. At the national level, an increase in female labour supply leads to women having greater say in matters relating to household purchase (Dasgupta, 2016). On the micro side, employment status positively affects decision making in the household, while education does not (Shome, 2015). Further, experimental evidence demonstrates that giving women access to a bank account and training them on its use increases their active engagement in decision making for household purchases (Field et al., 2016).

2.2 A qualitative approach to capture a decision making process

There is a need to capture gender dynamics in intra-household financial decision making processes due to the complexity of such interactions. Couples may showcase a negotiation process reflecting joint decision making, even though decisions are made unilaterally (Dema-Moreno, 2009). Such

nuances are especially pronounced in the Indian context where social and gender norms significantly affect women's decision making power. Experimental evidence has demonstrated that increasing information sharing between couples may not necessarily lead to greater economic benefit or opportunities for women (Lowe & McKelway, 2017). Further, increasing women's financial capacity improves their engagement in household purchases, but does not necessarily demonstrate a change in their overall decision making ability (Field et al., 2016). Thus, understanding and documenting financial discussion within the household is key to reconciling such dilemmas. Given the limited work on the process of bargaining, especially in the developing contexts, there is a need to understand "precise details on spouses' debates" (Lowe & McKelway, 2017).

A qualitative approach may be suited to capturing intra-household decision making dynamics for two reasons. First, small changes in indicator constructions can substantially influence rankings of women's decision making, and thereby, our understanding of them (Peterman et al., 2021). Further, results are highly sensitive to whether males or females are the ones reporting (Johnston et al., 2016). Thus, the current quantitative approach may be subject to bias. Second, current empirics operate within the restrictive constraints of the economic models and may not fully reflect the complexities of the decision making process (Agarwal, 1997). Katz (1997) argues that many of these models may "co-exist [within] the same household" (pp.37) based on resource and expenditure types. Any attempt to understand such complexities within the household needs to deal with both quantifiable and non-quantifiable factors. Doing so requires "a less restrictive formulation which incorporates qualitative aspects and greater complexity" (Agarwal 1997, pp. 6) to understand "*perspective*" and "*approach*" in intra-household financial decision making.

2.3 Objectives of the study

The aim of this study is to understand gender differences in intra-household financial decision making in low-income households and disaggregate household decisions from decisions made by male and female members. Its specific objectives are:

1. What are the domains of separate and shared financial responsibility?
2. What are the dynamics around household purchases? How do couples negotiate conflict in cases of clashing preferences?

3. What do households understand by savings? Is there a difference between husbands' and wives' conceptions of savings?
4. Do couples trust each other's financial decision making ability?

To answer the above questions, we took a two phased approach. In the first phase, we employed photo elicitation, a form of participatory qualitative research (Harper, 2002), with 55 respondents across rural and urban India (across three states). Based on the findings from the first phase, we created a gamified instrument to elicit and observe financial decision making in real-time amongst 16 couples in urban areas.

3. Methodology: Photo Elicitation and Qualitative Interviews

3.1 Visual qualitative methods

Photo elicitation is a type of qualitative interview in which researchers solicit responses from participants by “inserting a photograph into a research interview” to evoke *more* and different *kinds* of information (Harper, 2002, pp.13). This method can illuminate nuances that are challenging to acquire using other qualitative techniques (Ali-Khan & Siry, 2014). Photos are even more beneficial elicitation tools when they are combined with in-depth interviews (Vassenden & Jonvik, 2020).

There are multiple benefits to photo elicitation. Photos produced by respondents create an opportunity to bring their own point of view and words into the conversation (Harper, 2002). By allowing participants to generate data themselves, the traditional power dynamics between respondents and the researcher is altered as the former now defines what is important and directs the latter's gaze to themes meaningful to them (Frohmann 2005). The entire process gives respondents an opportunity to reflect and delve deeper into the subject matter, resulting in more insightful data (Frohmann, 2005).

Visual methods may be well-suited to offer insight into family relationships and interactions as they help transition from the “abstract” to the “concrete” (Soaita & McKee, 2020). Previous studies have relied on photo elicitation to explore themes of temporality, relationality, spatiality, and materialities between couples and other adults residing in the same home (Bridger, 2013; Soaita & McKee, 2020).

While the method is becoming more prominent, it is still not as common (Soaita & McKee, 2020), and it appears, to the best of our knowledge, that photo elicitation has not been employed to specifically understand intra-household financial decision making.

3.2 Sampling

Qualitative interviews were conducted in three districts across India, namely Dholpur in Rajasthan, Khargone in Madhya Pradesh, and Belgaum in Karnataka between September and October 2020. These locations were selected due to variation in their CRISIL financial inclusion score (2108) and the presence of partner organizations who were able to conduct the interviews. The study sample consisted of married adults who lived with their partners, owned a smartphone (to enable participation in photo elicitation), and had a combined income of approximately INR 12,000 per month.

3.3 Study Population

In total, 55 interviews were conducted across the three locations. In each location, we selected respondents from three strata: (a) households where only husbands were earning (HE), (b) households where only the wife was earning (WE) (c) households where both husband and wife were earning (BE) (See Appendix 1). 58% of this sample was female. The sample consisted of 31 rural residents and 24 urban residents. A majority of the respondents were in their mid-thirties, with the average age for both men and women being 34, and educated upto tenth to twelfth grade. The average monthly income of the sample was 9416 rupees from occupations such as driving, handloom work, cobbler work, and private jobs. Appendix 2 provides details on the data collection procedure. Appendix 3 explains the analysis strategy.

4. Findings: Photo Elicitation and Qualitative Interviews

4.1 Husbands and wives have separate spheres of responsibility

Men and women have separate spheres of responsibility within the household. Women, regardless of employment status, are responsible for the everyday operations of the house. This includes but is not limited to cooking, cleaning, grocery shopping, clothing, and expenditures related to children. Earning women describe the balance of their fiscal and domestic responsibilities as requirements or duties, using phrases such as *“have the whole responsibility”* (Female, Urban, Madhya Pradesh, WE). The designation of household spheres also hinges upon women’s expertise in household matters, which takes the form of knowledge about food, provisions, and other needs. Being the primary earner in the household does not excuse a woman from household responsibilities.

Men, on the other hand, manage “outside” expenses, which involve two key characteristics: financial engagement involving interaction with institutions, including gas agencies, schools, electricity departments, and banks, and those involving key relationships, such as house guests or employers. They are also responsible for buying and distributing things, be that occasional superior goods, household items or an allowance to their wife. Such a role is in line with their perceptions of themselves as the “provider” of the family.

In dual earning households, husband and wives’ income are earmarked for expenditures based on the respective responsibilities charted by the separate spheres of influence. Thus, husbands’ incomes are used for “external” expenditure, while wives’ incomes are for internal household expenditure. One working woman in a dual income household (urban, Madhya Pradesh) explained that her husband’s income is utilized for the children’s education, while hers is for household expenses. Husbands’ incomes are also considered as the primary income, whereas wives’ incomes are marked for saving and seen as *“just in case funds”* (Male, Urban, Madhya Pradesh, BE). This echoes in one respondent’s practice of using his salary for expenditures and saving his wife’s salary *“so that if any emergency comes then we can use this saving”* (Male, Urban, Madhya Pradesh, BE).

4.2 Dynamics in big financial expenditures

4.2.1 Income, investment and children motivate “big” financial expenditures

Men and women, across both rural and urban areas, made big financial purchases as an investment, to remedy a situation, or to obtain necessities. In particular, houses and cars were reported as the last big expenditure by a majority of respondents. Investment in houses is perceived as a means of securing the future for their children and a reliable safeguard in case of emergencies. Two-wheelers or cars are perceived as necessities for business, status, and convenience, especially during the COVID-19 pandemic. Such purchases not only served to limit spending on public transportations, but also increased income by making markets and workplaces more accessible, as represented by how one respondent *“can drive long distance to earn more” (Female, Urban, Madhya Pradesh, BE)* after upgrading from a small vehicle to a truck.

Children’s needs and desires influenced the expenditure decision of a majority of urban earning women. Families invested in household repairs and appliances, such as coolers, refrigerators, and television sets, to assuage their children’s demands. Many of these decisions were influenced by the possessions of community members and simultaneously served to showcase their standing to the very same community.

Urban women were the only subgroup to cite medical bills as large expenditures. They demonstrated their high self-efficacy in paying for these expenses by articulating how they navigated public healthcare benefits, paying back expenses in installments, taking loans from family members, and selling assets. This behavior is exemplified by a respondent who was *“paying installments of committee and I had taken money on interest from someone” (Female, Urban, Madhya Pradesh, WE)*.

4.2.2 Women’s involvement affected by employment and norms

Men involve their partners in large financial expenditures either after they have decided to purchase something or simply inform them after the purchase has already been made. This involvement differs based on women’s employment status with a greater likelihood of involvement if women are

earning. In only husband earning households, a majority report that men decide on a big expenditure by identifying the need independently or with other family members. This practice is even more pronounced in rural areas, with most non-earning women coming to know of purchases after they have been made or planned, as outlined by a non-earning female respondent who was probed about her role in household decision making: *"In my family, ladies are not involved. Family members take all such decisions...elder family members are doing this and so they are doing right. Why should I say something?"* (Female, Rural, Rajasthan, HE).

In households where women are the sole earning member, women are divided about their husband's involvement in decision making due to their opposition or stress at the expenditure. Most rural earning women forgo sharing expenses until after the purchase or declare at the outset that they will be using their own funds. Conversely, urban earning women highlight the need for their partners' support and consent as precursors to making big purchases. While some describe this dynamic as a purported strength of relationships, others illustrate a need to appeal to injunctive norms around who should make purchases, such as *"if woman goes alone then it doesn't look good"* (Female, Urban, Rajasthan, WE). In contrast, most dual income respondents reported having extensive discussions with their partners before making large purchases.

Family members and friends also influence big purchases by providing advice and sanctioning a decision. Women seek advice from family members, while men seek inputs from friends and family. Family elders still play the role of sanctioning or at least socially sanctioning big decisions. For rural respondents, employers were key consultants for large scale financial decisions, especially if the matter concerned business investments.

4.2.3 Compromise is key to resolving conflict

A majority of conflicts stem from one member of the family wanting to purchase an item and the other rationalizing a delay or denial of that purchase. These asymmetries may occur due to inadequate funds or misalignment of spending priorities. In dual income households, these conflicts often manifest as males making purchases without consulting with their partners or ignoring their partner's advice. They justify their decisions by emphasizing job requirements or immediate personal

needs.

When women make purchases without telling their husbands, they are often the sole earners in the household and do so to avoid conflict over the decision itself, believing that their husbands will be convinced by the need for the purchase after seeing its merit over time. It is also worth noting that disclosure does not automatically guarantee avoiding conflict. One respondent recounts a fight she had with her husband over opening a shop: *"When I asked [to open shop], he refused. But when I told him that I have saved Rs 5500 in the piggy bank, so you let me open, I am not asking money from you, and then he said, if you want to open then open...I even had fight I told him, you are not able to manage everything, what do I do. I need to do something, I can't be worried about 1-1 rupee"* (Female, Urban, Rajasthan, BE).

Couples differ in how they settle the disagreement, with around half of the couples entering a 'hot' state, while the other half respond more thoughtfully. Men in the former category do not like their authority to be challenged, which gives rise to arguments. If women are the ones getting angry, it is usually due to them being denied something or disagreeing with the decision made. The latter category up resolving issues more easily because they take the time to see things from their partners' perspective and discuss it with them.

In most cases, conflicts were resolved by women compromising by either delaying the fulfillment of their desires or eventually agreeing with their husband's point of view. A male respondent clearly highlighted this behavior by outlining his wife's actions when he purchased a phone: *"When I brought phone, she got angry...So I convinced her that it's useful thing. Then she agreed"* (Male, Urban, Rajasthan, BE). When such conflicts reach stalemates, working women show higher autonomy and use their financial resources to simply make purchases independently. Some women leverage other family members, such as mothers, mother-in-law and children, to sway their husbands.

4.3 Saving behaviors and priorities

4.3.1 Men and women have a differing understanding of savings

Photos and discussions of “something that represents saving” demonstrate gender differences in understanding savings. Most men tend to think *“with the left over money we are going to save it”* (Male, Rural, Karnataka, BE), while women save more consciously to safeguard for *“medical expenses, illness of children, birthday celebrations”* (Female, Rural, Karnataka, BE). For some rural women, this concerted effort often takes the form of an implementation intention that specifies amounts, time periods, and targets, such as *“100/- rupees monthly. It will help for the education of children”* (Female, Rural, Karnataka, WE). Lastly, even though there is a broad interest to save for unforeseen circumstances, saving only occurs if there are “remaining funds” and not through preemptive earmarking at periodic intervals.

4.3.2 Savings tools vary by region but cutting expenses remains a popular method everywhere

In urban areas, self-help groups, Life Insurance Corporation (LIC) funds, and investments into small businesses are common savings tools, whereas in rural areas, money is saved informally in almirahs (metal cupboards that can be locked) and piggy banks at home. Alongside saving at home, women reported hiding money from their husbands, as confirmed by a respondent when asked about how she allocated her income: *“...earlier when I used to get money from here per week, then I used to go home and count them and made budget and used to hide them so that my husband should not see them”* (Female, Urban, Madhya Pradesh, WE). The motivation was to ensure capacity to respond to unforeseen challenges and maintain autonomy in case of conflict over expenditure decisions.

Saving is also understood as an act of cutting expenses. Both men and women tried to avoid unnecessary expenditure and smoothen the rising expenditure at the end of the month, as illustrated by one respondent: *“Sometimes, we need to reduce the consumption of milk. If we need to prepare vegetables two times, then we prepare only one time and manage”* (Male, Rural, Rajasthan, HE). In most cases, the responsibility falls upon the wife, who has control over household and small expenses.

Lastly, the process of monitoring savings varies significantly based on location and the number of earning members. Couples in urban areas reported formal accounting systems, based on pre-planned budgets and writing down expenses. In rural areas, checking expenses with partners, bargaining while shopping, and occasionally writing down expenses are prevalent modes of monitoring.

4.4 Trust in partner is expected but not experienced

A majority of respondents not only share major purchase decisions with their partners, but also consult them before making purchase decisions. Transparency and discussion are viewed as productive and reported as common practice amongst all couples, as explained by an earning woman: *"I discuss everything with him so that he should also come to know that I am so much disturbed and facing so much of problems and he always supports me and says that you do whatever you feel right there is no restriction from my side, but if I would not discuss with him then he would say that you do not tell me anything and takes your own decisions and then there would be fight at home so I tell him everything and share everything"* (Female, Urban, Madhya Pradesh, WE).

In initial discussions, no one reported having financial goals their partner may not support or facing difficulties in communicating with them. Men and women found happiness in having such discussions with their partner, and felt good when their partner understood their perspective. However, analysing photos and responses shared by the respondents tells a different story.

Men do not trust their wives to make big decisions as they believe that their wives will be unable to allocate funds properly. This opinion strengthens the pattern of decisions largely being made in consultation with the husband. Furthermore, men believe that their wives trust them to make financial decisions, even though they themselves sometimes do not trust their partners, as suggested by one respondent who seeks his wife's involvement but ultimately makes the final decision.

Similarly, although earning women state that they trust their husbands, they go to great lengths to safeguard their income from their husbands. One of the participants keeps her bank account separate from her spouse, afraid that he will withdraw money and spend unnecessarily. In particular, women living in urban areas are explicit about their lack of spousal trust, as highlighted by one participant: *"I can't trust. This is because his parents have never given him any responsibility...And I don't think he will understand if I talk to him."* (Female, Urban, Rajasthan, WE).

5. Methodology: Gamified Instrument

While photo elicitation shed light on the factors influencing purchase decisions and savings, we still needed to observe *how* these factors and decisions unfolded. Additionally, we wanted to observe how

couples navigated social norms between themselves. To explore these objectives, we developed a ‘gamified’ qualitative instrument to observe financial decisions in real time. Gamification is the process of adding game elements to non-game contexts (Deterding et al., 2011) and has been applied in other contexts (Lee & Hammer, 2011). While the thrust of gamification is to engage and foster behavior change (Swan, 2012), we use it to create financial scenarios and let couples prioritize, negotiate, and finally, make decisions under the assumption that we would be able to observe real-life behaviors in the decision making processes.

5.1 Description of the game

Both husbands and wives participated. Each couple played the game with their partners as their teammate and two couples played against one another in the same manner as two teams playing against one another. The purpose of having two couples play at once allowed us to observe peer effects and infuse some competitiveness.

Each team had to set three objectives to begin the game: one joint objective, which was decided together by husbands and wives, and two individual objectives, which were set separately by each player. These objectives were placed on the game board (See Appendix 4) in one of three white “objective tiles” in the order that the couple wanted to achieve them. The placement activity served as a proxy for how different objectives were prioritized in the household. The facilitators carefully observed couples during this process to capture the conversations that led to the creation of joint objectives and the manner in which individuals decided their personal objectives.

To play the game, couples had to traverse along the linear path of the game board. Each team took turns to spin the wheel and move themselves forward. Along the way, couples were asked questions that reflected typical household financial decisions. Having a linear path underscored the temporality of decisions made in a household with different tiles mimicking months or quarters in a year.

To win, couples had to achieve all three objectives before reaching the last tile. To achieve an objective, the players had to purchase them. Joint objectives cost 350 rupees, while individual

objectives cost 150 rupees. This information was revealed to the participants after they had written down their objectives so as to not interfere with their thinking. Joint objectives were valued higher than individual objectives in harmony with the greater amount of investment required for such decisions.

Players received salaries to make payments, which allowed facilitators to observe who spends, saves, monitors, and tracks the allocation of individual salaries. When players reached the ‘objective tiles’, they could decide to buy their goals or move their goal to the next ‘objective tile’ if they could not afford it at that turn.

Questions were based on the gaps in the photo elicitation interviews. These gaps included questions raised by the phase 1 findings, which were then categorized into thematic areas of financial goals, savings, spending, and conflict. Financial goals were addressed through objective setting, which has been expounded above. A number of questions were developed for each of the gaps under the savings², spending³, and conflict⁴ categories, either in the form of decisions to be taken or scenarios that prompted a discussion between couples. The decision questions required participants to discuss their choices with their partner and then share their joint decision, while the scenario question allowed participants to reflect on their usual processes and determine how a choice would be made. Having two types of questions propelled the game forward and freed respondents from having to constantly calculate their remaining finances.

The three categories of questions were supplemented by a wildcard round, which served to challenge accepted norms, such as the dominant role of men⁵, or give respondents the opportunity to change the way they play the game, such as consulting other players or altering previous decisions.

While the decisions made as a result of questions or discussions were of interest, it was the process of decision making and the interactions between couples that was of prime importance. This information was captured through observations of who spoke first, who answered questions, who initiated discussions, and other behaviors exhibited by the couples.

² Example: You have Rs.200 left at the end of the month, which of the goals will you choose to fulfill from the board? Why?

³ Example: Meet your daughter's future spouse! Pay Rs. 200 for the wedding celebration. Would you do it?

⁴ Example: It is a summer holiday. Your child wants a TV but your family has been saving for a cooler. Imagine that both cost roughly the same, but you only have enough to pay for one. Which one do you choose to purchase? Why?

⁵ Example: Your husband falls ill and has to leave the game for one turn. You must make all decisions by yourself.

5.2 Respondent selection, demographics, observation recording

The study was conducted in a low-income neighbourhood in New Delhi in February 2021. The study was limited to New Delhi, where the authors were based, due to COVID restrictions. As authors, we wanted to observe the game in person. The inclusion criteria was similar to the previous phase, namely adults living with their partners and having a combined income of 12,000 rupees per month. Similar to the previous phase, we identified couples across the three employment strata. In total, we identified 16 couples and conducted eight game sessions.

Amongst the 16 couples, 8 couples had both working husbands and wives, 6 couples only had a working husband, while for 2 remaining couples, only the wife was working. The average age of respondents was 28.47 years (husbands = 30.75 years; wife = 26.19) with an average income of INR 7,429 per month (husbands = 9,167; wife = 5,111). On average, the couples were married for about 7.8 years, had one or two children and lived in households of about seven people. 50% of respondents had studied upto or above 10th grade.

Authors conducted sessions and took notes on interactions between couples. The authors then had a debrief session and finalized the observations. Appendix 3 describes the analysis strategy.

6. Findings: Gamified Instrument

6.1 There is consensus on joint goals, but wives are hesitant about their personal objectives

Almost every couple's joint objective focused on the financial stability and success of their children. This included paying for their education, fulfilling the monetary needs of the household, and long-term financial stability, exemplified by goals such as “future of the family” or “education/future of the children.” There was consensus amongst all participants that both husbands and wives are equal stakeholders in their children’s welfare.

Personal objectives and the confidence to share them differed starkly by gender, with women

selecting family-oriented objectives and men focusing on income generation. For wives, the priority was clearly owning or building a house for their families. In cases where women did not report 'house' as a personal objective, it was because it had already been chosen as the joint objective or husband's personal objective. In contrast, most of the husbands' personal objectives focused on income generation, such as getting a good job or building a business. While both husbands and wives were hesitant to share personal objectives, husbands were significantly less so.

Women had to be prompted to choose a personal objective. They referred to the pre-set joint objective as their personal goal and only picked a personal goal when provided with options. Women were confident in sharing the joint objective, which almost always revolved around children. This discrepancy might be explained by women being more assured of their husbands' approval of household and children-oriented goals, rather than their own self-driven goals.

"Future of the children/family" was the priority among the three objectives for all respondents. However, when the husband designated his work as the personal objective, it took precedence over the joint objective. In cases where both husbands and wives declared getting a "job" as a personal objective, the husband's job was prioritized over the wife's.

6.2 Observing the decision making process

6.2.1 Wives are more vocal on savings, while husband are vocal on expenditure decisions

Husbands are conditioned to take the lead, as demonstrated by almost all the husbands independently deciding that they would be responsible for tracking expenditures during the game. While the game design required minimal account keeping, we wanted to observe who would be designated as the account keeper in the household and how it would be decided. Even when the wife was involved in decision making or monitored finances during the game, they deferred the responsibility to their husband. Wives were selected to keep track of the money only in three cases out of sixteen, with the decision being made by the husband in the first case, the wife in the second, and both in the third. In all three cases, the participants were from dual income households.

While wives were more involved in answering savings-related questions, husbands took the lead on expenditure-related inquiries. Most women reported that they prefer saving weekly for a festival rather than in one go, as it was easier to set aside small amounts regularly. When asked about which objective they would like to “save left over income” for, most couples chose their joint objective. On the other hand, decisions to spend on a daughter's marriage or buy insurance made by husbands. In rare instances, working women were observed discussing with their husband or offering their opinion to the facilitator. However, when deciding on whether to spend on daughter's school fees or house repairs, the wives became more involved in the decision making process, prodding husbands to choose to pay their daughter's fees. This aligns with our observation of children's future as a sphere of equal investment.

6.2.2 Men's choices and opinions are final in a way that women's are not

To understand negotiation between couples, we asked participants to choose between either buying a cooler or a TV for their children. When conflict arose, both genders tried to justify their decision by showcasing it as a better investment for the family. One woman justified her decision as something to bring “*children's happiness.*” The husband too noted that “*cooler will be for all family.*” While no decision was reached in this couple's discussion, in the case of another couple, the husband just declared his choice as final.

To observe how females tried to bargain with their spouses, we asked them, as part of the game, to convince their husbands to buy something for their children, such as a school bag or bicycle. Such processes followed three steps. First, wives started by inquiring about available resources. Second, they explained the rationale for the purchase. Wives always assumed their husbands would agree if it was not for the lack of resources. Third, in case of failure, they focused on explaining to the child why they had to delay their purchase or suggesting an alternative. This process suggested that women set up their case accounting for the high chance of failure.

6.2.3 Wife cannot be the only one working and husband cannot manage household

Social norms hinders women from contributing more to household income than their husbands. As part of the game, we inquired how couples would feel if their wives worked while husbands stayed at home. Most couples agreed that the wife should continue to stay at home and take care of the children. Couples explained that husbands will be "unable to take care of the household" and irrespective of women's employment status, they should still manage household responsibilities.

Both husbands and wives recognised a loss of reputation in flouting social norms by only having the wife earning. The wives noted that *"society will not accept it. They will make taunts. Husband is at home doing nothing, and the wife is working. They will tell my [husband's] mother who will then tell me...Will say wife is making money...even I will say to my husband. If I work, even I will say to my husband to work (Female, BE)."* The concern was not only that men were not earning, but also an additional loss of respect for taking care of household responsibilities alone. One husband noted that *"people will call me nikama [useless]... But I will not do the household management alone...have to protect my respect....but for kids i will have to do it whether I have to close the door and do it (Male, HE)."* Even in the case of the wife-earning strata, both partners agreed that the wife could work but noted that the house management would be handled by both of them together.

7. Conclusion

We recognise the following limitations of our study: With regards to photovoice, we interviewed only one individual per household, and thus, conflicts were understood only from one perspective (respondents may have shared stories where they were depicted positively). Nevertheless, these anecdotes are still invaluable to understand their decision making. Further, as the authors could not travel to locations, the photovoice interviews were conducted by hired qualitative researchers. In two out of the three locations, interviewers and interviewees worked in the same organisation. While interviewers were not directly managing or even within the same department as the interviewee, what respondents shared may have been affected. Lastly, photo elicitation was conducted soon after the national lockdown in India and might have limited applicability to other times.

The gamified instrument is not validated as it was an attempt to experiment with a new way of data collection on the subject. For us, it served as an innovative starting point to capture bargaining processes. Further, the game was hosted in areas where we could not stop spectators from watching, which may have introduced social desirability bias and Hawthorne effects⁶.

Despite these limitations, the study contributes to the intra-household financial bargaining literature by documenting decision making and spousal debates on purchases and saving. The objective of the paper was to capture gender differences within intra-household finance and understand the nuances of spousal debates in decision making. Key findings show that husbands and wives have separate spheres of responsibilities. We find that women are more conscious about saving decisions in the household than men. Lastly, compromise and negotiation are a crucial part of financial decision making, with women expected to make more concessions.

Women and men have designated spheres of influence in financial decision making within the household. This finding may explain why interventions record an increase in women's participation in purchasing decisions, but not in overall decision making (Field et al., 2016). While women could potentially be reporting higher decision making in their spheres of influence, it may not mean that they have control over other aspects of household decisions. Thus, increasing women's overall agency within the household may require targeted attention to different domains as increase in efficacy in one area may not necessarily spillover to others. While we record separate spheres, we also note that expenses relating to children are shared by both husbands and wives, with women advocating strongly for their preferences. This has two policy implications. Firstly, policies aimed at improving children's outcomes could consider women as the delivery channel. Secondly, as both genders participate in this domain, products or savings schemes that are framed in terms of children's needs may be able to initiate better response from both members of the household.

The role of the male as a sanctioning authority is reinforced by women deferring to their husbands. This is reflected across a number of behaviors, such as "agreeing" with husbands following a big financial decision, perceiving joint objectives as their own personal goals, and complying with the expectation of financial transparency. Women who do not fall under this category are seen as transgressing norms and either hope or are convinced that time will sway their husbands' opinion.

⁶ The Hawthorne effect refers to individuals changing their behavior or actions in response to being observed.

This could explain why interventions targeted at increasing communication between husband and wives are unable to further women's economic opportunities (Lowe & McKelway, 2017) as males continue to maintain control over the majority of the financial decisions. Policies aimed at increasing economic opportunities for women need to first increase male support for the same.

Previous research has found that increasing income would increase women's decision making authority (Shome, 2015), however, we observed two contradictory findings. On one hand, such benefits are potentially threatened by unequal gender norms, as also found in other developing contexts (Mabsout & Van Staveren, 2010). Even earning women are not excused from household responsibilities. If both males and females are earning, males' income is seen as the primary income and they continue to control major purchases. On the other hand, we note that financial resources may give women the power to argue against norm barriers and assert her preferences. Thus, further research is needed to evaluate the extent to which increasing women's income can mitigate social norm barriers that obstruct their role in household finance.

Lastly, the study hoped to make a compelling case for innovative qualitative methods in the field of household financial decision making. Photo elicitation, in particular, was helpful in gaining insight on themes of conflict. Images triggered vivid memories of conflicts and helped respondents contextualize abstract concepts of bargaining and negotiation. We believe that photo elicitation has great potential to cast light on not only financial decisions, but also other sensitive topics, including agency, conflict, and domestic violence. Similarly, the gamified instrument has provided an opportunity to view couples make decisions in real time, which can greatly facilitate our understanding of decision making processes and unpack a number of new research questions in this field, perhaps around planning, credit, and interaction with institutions, among others.

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8. Appendix

Appendix 1: Sample stratification for photovoice

We stratified across earning status as prior research has demonstrated that women's role in household financial decision making is directly related to their income generation ability (Bernasek & Bajtelsmit, 2002; Shome, 2015). For each eligible couple, either the husband or wife was interviewed. We chose to interview only one person per household due to challenges scheduling separate interviews when couples preferred to be interviewed together. We also wanted to be conscious to not put anyone at further risk, given the sensitivity of questions around conflict.

Table 1: Distribution of sample size for photo elicitation*

	Female	Male	Total
Region			
Rural	18	13	31
Urban	14	10	24
Location			
Karnataka	12	7	19
Madhya Pradesh	11	9	20
Rajasthan	9	7	16
Sample Stratification (by employment)			
Both working	12	8	20
Only Husband	5	9	14
Only Wife	15	6	21

*Adequate sample size in qualitative research is determined at the point of saturation which allows researchers to draw patterns (Braun & Clark, 2013). Research across the world argues that this can be reached at different sizes. Guest et al., (2006) shows that 88% of the themes are covered in the first 12 interviews, while a comprehensive review shows that the mean sample size in qualitative studies was 31 (Mason, 2010). Our sample size is above both these parameters. Further, our sample size is larger than other typical photovoice studies (Ward et al., 2015).

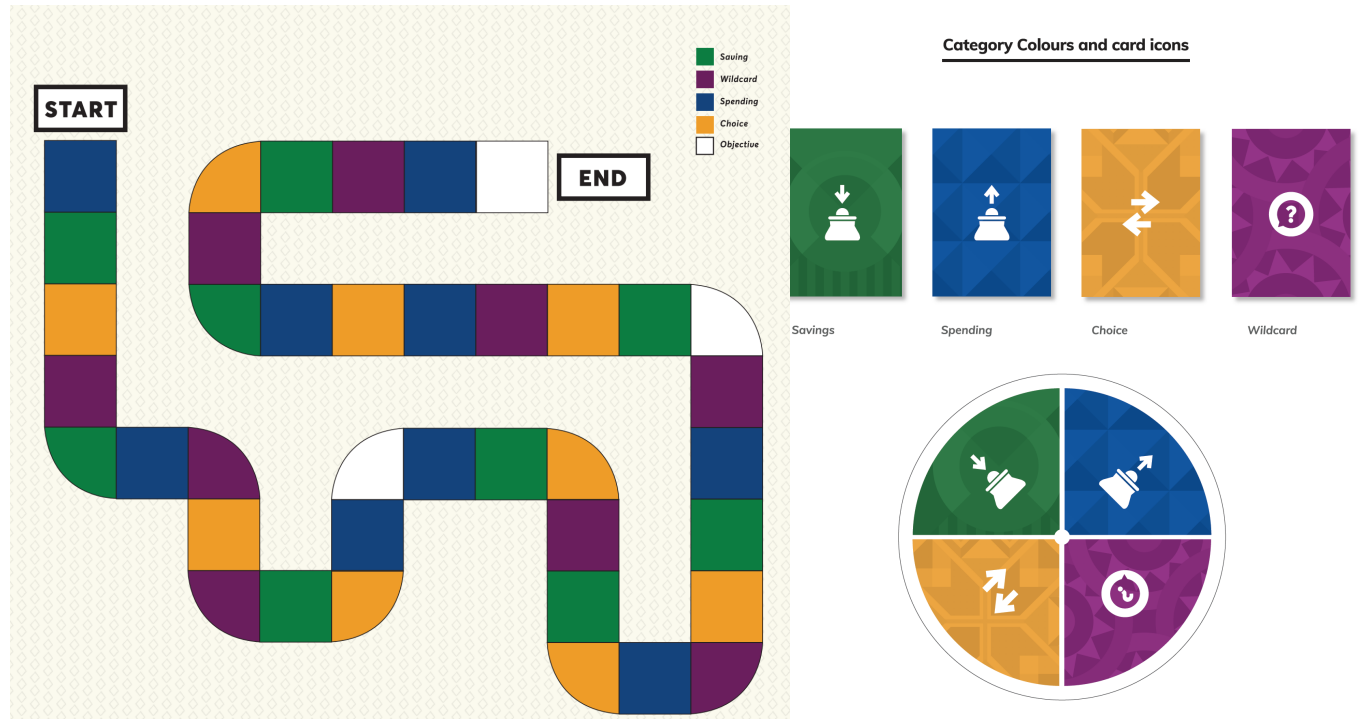
Appendix 2: Data collection procedure for photo elicitation

After an initial qualitative interview, respondents were invited to share photos on two out of the three themes: something that represents the last big financial decision, something that represents savings, or something the couple disagreed about spending money on. After receiving the photos, the researchers conducted a follow-up interview based on the photographs shared by participants.

Appendix 3: Analysis strategy

For both phases of our research, we relied on the thematic analysis technique for its flexibility. The technique has been employed by other photo elicitation studies (Loeffler, 2004) to identify, analyse and report themes in the data (Braun & Clark, 2013). To conduct the analysis, we first ensured familiarity with the data by reading the transcripts multiple times. Based on this and our research questions, we identified key codes. Then, we coded each transcript line-by-line to develop a two-by-two matrix of codes and transcript sections. To ensure consistency, each member reviewed others' codes and transcripts. The team also met regularly to discuss emerging codes and categorize them into themes to ensure inter-coder reliability. Finally, we described patterns within the data and theorized their importance, their broader meanings for emerging themes, and implications as relevant to the research questions.

Figure 1: Game board and cards



*Respondents spin the wheel which determines which box they will move to. Each color on the board corresponds to one of the four categories of cards. Based on the box, they pick up a card, and answer the question or consider the action in it.

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