

Exploring Household Financial Decision-Making through a Migration lens

A Presentation by LEAD at Krea University

June 7, 2021



LEAD is a part of IFMR Society with strategic oversight from Krea University.

Presentation Overview

In this presentation, we will cover:





Background & Research Questions

139 millionUSD 24 billion30%

Use of formal channels for remittance flows

How does financial decision-making, especially remittance allocation*, unfold in different types of migrant households?

Figures from 2011

Who is the primary financial decision-maker in these households? How does decisionmaking change when the migrant is at home vs. when the migrant is at destination?

Which factors result in an increase or decrease in the migrants' decision-making power relative to other members of the household?

Which of the following factors influence financial decisions on savings and expenditure allocations in migrant households?



*We are not looking at just remittance allocation, but at household income cumulatively. However, allocation of remittances is particularly interesting given the migration lens, as well as the existing body of literature on remittance use.

Internal migration estimates (Census 2011)

Size of India's domestic remittance market

Research Framework (1/2)

Study Design: Mixed-methods

- Quantitative surveys with migrant workers and a non-migrant member of their households
- Qualitative interviews with sector experts and financial institutions.



Implementation Partner

To identify and recruit respondents, we partnered with *gramvaani*, a social technology solutions provider with IVR capabilities and a strong user-base in our study location.



Descriptive Analysis (1/4) – Demographic & Household Composition



■OBC ■SC ■ST ■General

Descriptive Analysis (2/4) – Migrant Profile



Duration			57%				35	%		8%	
0%	10%	20% Tempora	30% ary/Seaso	% 40% easonal ∎Sen		60% nanent	70% Perman	80% ent	90%	100	0%







Skill

Duration



Destination

Descriptive Analysis (3/3) – Remittance & Financial Behaviour



Measuring Household Financial Decision-making



Introducing our Regression Models



Modelling Financial Decision Making: Simple Logit Regression

1. Migrant as the Financial Decision Maker

 $Y_{Home,Miarant,i} = \beta_0 + \beta_{1i}HH_i + \beta_{2i}Mig_i + \varepsilon \quad (1)$ $Y_{Away,Migrant,i} = \beta_0 + \beta_{1i}HH_i + \beta_{2i}Mig_i + \varepsilon$ (2)

2. Large 1. Small **Financial** Financial Expenditure (ex. Purchase Expenses (ex. of Consumer Grocery) **Durables**) **Financial** Expenditure 4. Decisions Decisions on Household on Education & Savings Analysed Healthcare 2. Women as the Financial Decision Maker Emergency 5. Spending and 7. Non-Remittances Emergency Borrowing

 $Y_{Home,Woman,i} = \beta_0 + \beta_{1i}HH_i + \beta_{2i}Mig_i + \varepsilon$ (3) $Y_{Away,Woman,i} = \beta_0 + \beta_{1i}HH_i + \beta_{2i}Mig_i + \varepsilon \quad (4)$

Modelling Migrant as the Decision Maker

The table represents Odds-Ratios for 'migrant' being the decision maker.

Row 1: Represents OR when migrant is at home

Row 2: Represents OR when migrant is away for work

GREEN represents an increase in the Odds; RED represents a decrease in the Odds

Variables	LARGE FINANCIAL EXPENSES	EXPENSES ON EDUCATION & HEALTH	HH SAVINGS	SPENDING REMITTANCE	EMERGENCY EXPENSES	NON- EMERGENCY BORROWING
Years Since	1.085***	1.073***	1.078***	1.078***	1.098***	1.080***
First Migration	1.065***	1.021	1.043*	1.023	1.054**	1.057***
Duration Of Migration = Semi- permanent	0.823 1.324	0.754 2.005*	<mark>0.510</mark> *** 0.809	0.671 1.147	0.887 1.202	1.083 1.224
Average Size	1.690*	1.347	0.924	0.905	1.058	0.989
Of Remittance	1.569	1.407	1.234	1.586	1.238	1.685
HH Size	<mark>0.730</mark> ***	<mark>0.761</mark> ***	<mark>0.819*</mark>	<mark>0.725</mark> ***	<mark>0.755</mark> **	0.802**
	0.857	0.929	1.064	0.957	0.827	0.685***
No. Of Children	1.558***	1.425***	1.317**	1.633***	1.459**	1.231
Below 18	1.171	0.962	0.842	1.025	1.119	1.307
HH Has Older	0.695	0.371***	0.333***	0.369***	0.315***	0.241***
Male	1.484	0.664	0.538	0.378**	0.434**	0.391**
No. ff Financial	0.998	1.024	1.053	0.933	0.751	0.764
Contributors	<mark>0.566</mark> **	0.559*	<mark>0.593</mark> *	0.868	<mark>0.603</mark> *	0.78





Migration

Years since **First Migration**



No. of Financial Contributors



Size of Remittance



Older Male

*** p<0.01, ** p<0.05, * p<0.1



Δ

No. of Children

below 18

Modelling Women as the Decision Maker

The table represents Odds-Ratios for 'a woman' being the decision maker.

Row 1: Represents OR when migrant is at home

Row 2: Represents OR when migrant is away for work

GREEN represents an increase in the Odds; RED represents a decrease in the Odds

Variables	SMALL DAILY EXPENSES	LARGE FINANCIAL EXPENSES	EXPENSES ON EDUCATION & HEALTH	HH SAVINGS	ON SPENDING REMITTANCE	EMERGENCY EXPENSES	NON- EMERGENCY BORROWING
Years Since	1.031*	1.011	1.017	1.007	1.007	1.001	0.998
First Migration	1.091***	1.038*	1.071***	1.052**	1.062***	1.034*	1.028
Duration Of Migration = Semi- permanent	2.072*** 1.798**	0.911 0.96	1.151 1.045	1.802* 1.555	2.132 ** 1.424	1.437 0.866	1.369 0.959
Average Size Of	1.044	0.752	0.707	1.095	1.152	0.657	0.579
Remittance	0.831	0.378**	0.476**	0.58	0.682	0.745	0.677
HH Size	0.865	1.033	1.017	0.978	1.107	1.019	1.104
	<mark>0.804</mark> *	0.879	0.887	<mark>0.791</mark> **	0.881	0.921	1.011
No. Of Children	1.151	<mark>0.721</mark> **	0.837	0.951	0.793	0.944	0.974
Below 18	1.361**	1.158	1.229	1.324**	1.145	1.052	0.931
HH Has Older	0.308***	0.234***	0.419*	0.518*	0.287***	0.329**	0.365**
Male	0.083***	0.0867***	0.122***	0.142***	0.177***	0.126***	0.097***



Years since First Migration





Duration of Migration



Size of Remittance

Woman as Decision Maker





*** p<0.01, ** p<0.05, * p<0.1

Modelling Household Decision Making: Multinomial Logistic Regression

- We use multinomial logistic regression models for the analysis of categorical dependent variables with more than two response categories. We model the type of financial decision maker in our sample.
- We classify financial decision makers within the household in 5 broad categories.



Migrant Member



The Migrant's Spouse



Older Male (Usually the Migrant's Father)



Older Female (Usually the Migrant's Mother)



Other HH Members (Usually the Migrant's Siblings)

- For the purposes of our analysis, we select 'Migrant as the Financial Decision Maker' being the base category for comparison.
- All Coefficient and Odd-Ratios generated from the model represent the likelihood of a particular type of decision maker (say, spouse) being the decision maker 'relative' to the migrant being the decision maker.

DECISION	LARGE FINANCIAL EXPENDITURES											
Variables	Spouse	Older Male	Older Female	Other HH Members								
Years Since First Migration	1.002	0.830***	0.920**	0.850***								









Modelling Household Financial Behaviour

1. Modelling Household Savings Behaviour

 $Y_{HH\,Savings} = \beta_0 + \beta_{1i}HH_i + \beta_{2i}Mig_i + \beta_3(Category\,DM) + \varepsilon \qquad (1)$

 $Y_{HH \, Savings} = \beta_0 + \beta_{1i} H H_i + \beta_{2i} M i g_i + \beta_3 (Gender \, DM) + \varepsilon$ (2)

2. Modelling Household Expenditure Allocation on Education and Healthcare

$$Y_{Allocation \ Educ/Health} = \beta_0 + \beta_{1i} H H_i + \beta_{2i} M i g_i + \beta_3 (Category \ DM) + \varepsilon$$
(3)

 $Y_{Allocation \ Educ/Health} = \beta_0 + \beta_{1i}HH_i + \beta_{2i}Mig_i + \beta_3(Gender \ DM) + \varepsilon$

(4)

Modelling HH Savings Behaviour

The table represents Odds-Ratios for a household to have savings. GREEN represents an increase in the Odds; RED represents a decrease in the Odds

VARIABLES	Spec 1: Category of Decision Maker	Spec 2: Gender of Decision Maker
Log Average Monthly HH Income	12.63***	10.62***
HH Size	0.671***	0.675***
No. of Financial Contributors	1.435**	1.331
HH has older male	2.499**	1.732
Decision Maker = Spouse	1.487	
Decision Maker = Older Male	0.320**	
Decision Maker = Older Female	0.688	
Decision Maker = Other HH Members	0.338*	
Decision Maker = Female		2.118**
HH Members Consulted on Decisions	2.524**	2.588**
Education Status of Migrant above High School = 1	1.876**	1.832*
Degree of Remittance related IA	0.782**	0.793*

*** p<0.01, ** p<0.05, * p<0.1

Migrant Level of Education

Consultative Process

Modelling HH Allocation on Health and Education

The table represents Odds-Ratios for An increase in the share of HH Expenditure allocation on Education and Healthcare.

GREEN represents an increase in the Odds; RED represents a decrease in the Odds

VARIABLES	Spec 1: Category of Decision Maker	Spec 2: Gender of Decision Maker
Log Average Monthly HH Income	1.409**	1.385**
HH Size	1.055	1.055
No. of Financial Contributors	0.854***	0.867**
HH has older male	0.992	0.963
Decision Maker = Spouse	1.255	
Decision Maker = Older Male	1.058	
Decision Maker = Older Female	0.813	
Decision Maker = Other HH Members	1.395	
Decision Maker = Female		1.06
HH Members Consulted on Decision	2.101***	2.062***
HH using more advanced fin products	0.787**	0.820*
Education Status of Migrant above High School = 1	1.440**	1.449**
Risk Preference Score	0.810**	0.816**
*** p<0.01, ** p<0.05, * p<0.1		

HH using advanced financial products

Risk Preference

Consultative Process

Migrant Level of Education

Conclusion & Recommendations

Importance of Migrant typology and history

Factors that influence financial behaviour

Financial service providers

Migrant characteristics

Household composition

Product offerings for migrant customers and/or households

Assisted offerings

Goal-based financial instruments

Product bundling

Follow us on Twitter @LEADatKrea

Our Head Office LEAD at Krea University 2nd Floor, Buhari Towers, No.4, Moores Road, Near Asan Memorial Sr.Sec.School Chennai – 600 006, Tamil Nadu

LEAD is a part of IFMR Society with strategic oversight from Krea University.

www.ifmrlead.org

Appendix: Multinomial Logit Regression Results

	Large Financial Expenses				Productive Consumption Expenses				HH Savings				Spending Remittances				Emergency Borrowing				Non_Emergency Borrowing			
VARIABLES	Spouse	Older Male	Older Female	Other HH Members	Spouse	Older Male	Older Female	Other HH Members	Spouse	Older Male	Older Female	Other HH Members	Spouse	Older Male	Older Female	Other HH Members	Spouse	Older Male	Older Female	Other HH Members	Spouse	Older Male	Older Female	Other HH Members
Years since First Migration	1.002	0.830***	0.920**	0.850***	1.033	0.883***	0.96	0.915**	1.013	0.855***	0.916***	0.863***	1.033	0.860***	0.926**	0.887***	0.995	0.845***	0.892***	0.840***	1.004	0.855***	0.906***	0.855***
Migrant Skill Bucket = 2	3.084*	0.953	1.251	2.827*	0.959	0.897	0.681	1.261	0.808	0.375*	0.471	0.892	0.714	0.318**	0.457	0.862	1.364	0.519	0.739	1.019	1.281	0.405*	0.43	0.587
Duration of Migration = 2, Semi-Permanent	0.638	0.951	1.251	0.899	0.503*	0.49	0.76	0.5	1.251	1.436	2.444*	1.032	0.801	1.005	2.389*	0.773	0.675	0.994	1.254	1.228	0.836	0.846	1.084	1.175
Average Size of Remittance	0.313**	0.828	0.489	0.83	0.534	0.885	0.484	0.856	0.799	0.837	0.495	0.997	0.562	0.474*	0.434	0.971	0.824	0.5	0.606	1.168	0.548	0.581	0.675	0.718
HH Size	0.964	1.514***	1.282	1.648**	0.963	1.222	1.255	1.578**	0.806	1.14	0.989	1.372	0.952	1.147	1.102	1.573**	1.092	1.397*	1.32	2.006***	1.292	1.491**	1.517*	2.481***
No. of Children below 18	1.123	0.643**	0.766	0.692*	1.309	0.828	0.802	0.81	1.441*	0.949	1.097	0.878	1.13	0.85	0.913	0.759	1	0.752	0.805	0.708	0.869	0.732	0.688	0.624**
No. of Financial Contributors	1.226	1.578	1.790*	2.600***	1.218	1.709	1.702	2.595***	1.011	1.818*	2.019*	2.616**	0.654	1.374	1.421	1.815	1.107	1.799*	1.894*	2.915***	0.8	1.194	1.271	1.689*
HH has older male	0.0431** *	1.828e+ 07***	0.557	0.211***	0.270***	5.159e+ 07***	0.861	0.353*	0.367**	2.706e+ 07***	1.462	0.568	0.399*	7.186e+ 07***	2.621*	0.549	0.404*	8.190e+ 07***	1.373	0.532	0.181***	1.020e+ 08***	1.199	0.308**
Log Average Monthly HH Income	1.483	1.361	1.534	1.703	1.2	1.283	2.352	1.658	1.592	2.147	2.503	2.01	0.981	1.789	1.302	1.317	0.678	1.035	0.565	0.729	0.722	1.296	0.866	1.134
Constant	1,220	3.67e- 08***	3.22	0.00614	88.84	5.35e- 08***	0.113	0.00642	0.414	1.87e- 09***	0.0972	0.00053	444.9	8.28e- 07***	57.83	0.0172	202.1	2.24e- 05**	3,303	0.162	1,575*	6.10e- 07***	19.95	0.105
Observations	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361
Prob > chi2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pseudo R2	0.363	0.363	0.363	0.363	0.338	0.338	0.338	0.338	0.34	0.34	0.34	0.34	0.352	0.352	0.352	0.352	0.372	0.372	0.372	0.372	0.393	0.393	0.393	0.393