Understanding new-to-UPI users' experiences with UPI-based digital payment apps

Findings from a quantitative survey of 262 respondents from Kerala and Uttar Pradesh

DVARA Research

*Dvara Research commissioned the study to the Centre for Social and Behavioural Change, Ashoka University.

** The study was conducted under a donation received by Dvara Research from WhatsApp Pay.

*** The study was conducted between July and August 2022.

1. Project overview

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1.1. Context and timelines

- While the usage of UPI-based payments has been steadily increasing, the experiences of new-to-UPI users are relatively less examined.
- Our survey examines the knowledge, perceptions, adoption of UPI-based digital payment apps (DPAs) among three groups of new-to-UPI users, i.e., women, migrant workers and gig workers.
- The results from this survey will lay the groundwork for a qualitative deep dive into these users' interaction with specific UPI-based DPAs and how their features (or their lack) affect these users' ability to use UPI.

STAGE 1: SECONDARY RESEARCH

6th July — Published blog-post summarising the literature

STAGE 2: SURVEY

8th July — Pilot started

12th July — Survey started

20th July — Survey completed

STAGE 3: QUALITATIVE RESEARCH

Upcoming — Publication of results

262 respondents in Uttar Pradesh and Kerala
From 3 groups: women, migrant workers, and gig workers

Total number of surveys
417

Fulfilled the screening criteria, consented and completed surveys*
262

% female	Median age	% completed secondary school or higher	% employed	% married	% with own smartphone	Avg HH size
36%	**27 years**	**91%**	**84%**	**57%**	**94%**	**5.7**

* Screening criteria:
- *Located in Wayanad, Ernakulam, Sitapur and Gautam Buddha Nagar*
- *Belong to one of the 3 target groups (Women, migrant workers, and gig workers)*
- *Respondents have used at least one of the four apps (PhonePe, G-Pay, PayTM, WhatsApp Pay)*

1.2. Sample demographics by respondent groups

Indicators*	Women (N = 91)	Migrant Workers (N=80)	Gig Workers (N = 91)
Age	29.6	29.3	28.0
HH Income	₹27,747	₹28,150	₹57,324
Disposable Income	₹5,826	₹6,108	₹7,521
% Married	62%	63%	46%
% Completed secondary school or higher	95%	80%	97%
% HH Income 10k or less	8%	18%	14%
# HH Members	5.1	6.4	5.7
% Own a smartphone	89%	94%	99%
% Has a Bank account	99%	98%	98%
% Receive income/allowance through bank or DPA	51%	39%	62%
% Primary income earner	19%	69%	53%
% Employed	55%	100%	100%
% Claim male member in charge of LPG	55%	65%	67%
% Claim male member in charge of household finances	65%	74%	88%

Female respondents are :

- Less likely to have HH income ₹10K or less
- Less likely to own a smartphone
- Less likely to be the primary income earner
- Less likely to be employed
- Less likely to report male member overseeing gas or household finances

Migrant workers are :

- Less likely to have completed secondary education or higher
- Less likely to receive income/allowance through bank or DPA

Gig workers are :

- Less likely to be married
- More likely to have higher income
- More likely to receive income through bank or DPA
- More likely to be (only slightly) younger

2. Methodology

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2.1. Variables of interest: Explaining users' UPI-related behaviour

- **Outcomes**
  - Stated adoption of DPA: number of apps used at least once
  - Stated usage of DPA: frequency of use

- **Predictors**
  - Perceptions: *Perceived Risk*, *Ease of Usage*, *Usefulness*, *Trust*
  - Behaviour: *Motivation, Self Efficacy, Generalised Trust*
  - Challenges: *Mobile-related challenges, Negative experiences*
  - Knowledge: *Awareness, Source of Information*

- **Additional predictors**
  - Social norms surrounding DPA usage
  - Confidence in DPA
  - Experience of customer redressal

Please refer to slide #42 for the attendant regression model.

3. Key findings: Unpacking users' perceptions about DPAs

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3.1. Unpacking users' perceptions about DPAs

- Risk perception of using DPAs is low to moderate in the sample for the most part:^
  - Respondents in Kerala perceive higher levels of risk than respondents in Uttar Pradesh, across the three user groups
  - Women have the highest levels of risk perception in the sample, followed by migrant workers and gig workers

- Perceptions of usefulness of the DPA and the ease of using the DPA is high across user groups:^^
  - Respondents in Uttar Pradesh perceive significantly higher levels of usefulness and ease of use than respondents in Kerala
  - Gig workers perceive the highest level of usefulness in the sample, followed by migrant workers and women.
  - Women and gig workers perceive similar levels of perceived ease of usage, followed by migrant workers

**The combined findings on respondents' perception of risk, usefulness, and ease of usage of DPAs can be found on slide #52*
^Findings on risk perception are constructed based on results to questions presented on slide #54
^^Findings on usefulness & ease of use are constructed based on results to questions presented on slides #55 and #56, respectively

4. Key findings: Unpacking users' behavioural dimensions about DPAs

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4.1. Unpacking users' motivations to use DPAs

- **Respondents' intrinsic motivation^ to use DPAs is high in the sample:**
- Respondents in Uttar Pradesh have higher levels of intrinsic motivation than respondents in Kerala, across the three user groups
  - Migrant workers have the highest levels of intrinsic motivation, followed by gig workers and women

- **Respondents' extrinsic motivation^^ to use DPAs is low in the sample:**
  - Respondents in Uttar Pradesh have higher levels of extrinsic motivation than respondents in Kerala
  - Gig workers have the highest levels of extrinsic motivation, followed by migrant workers and women.

**The combined findings on respondents' intrinsic motivation and extrinsic motivation to use DPAs, and trust in DPAs can be found on slide #53*

*^ **Intrinsic motivation** refers to internal motivation (such as a perception that using UPI will help the user or the fun associated with using UPI) that could drive action. These findings were constructed through results to questions presented on slide #57*

*^^ **Extrinsic motivation** refers to external motivation (such as rewards or cashbacks) that could drive action. These findings were constructed through results to questions presented on slide #58.*

4.2. Unpacking patterns of users' trust in DPAs

- **Respondents' trust in DPAs is high in the sample:^**
  - Respondents in Uttar Pradesh have higher levels of trust in DPAs than respondents in Kerala, across the three user groups
  - Migrant workers have the highest levels of trust in DPAs, followed by gig workers and then women
  - Of all the three user groups, women are the least comfortable in using UPI for transactions over Rs 2000, however, the score is still quite high.

**The combined findings on respondents' intrinsic motivation and extrinsic motivation to use DPAs, and trust in DPAs can be found on slide #53*

*^ Findings on **Trust** were constructed through results to questions presented on slide #59. Broadly, trust is a composite of perceived reliability, safety and comfort in using UPI for transactions above 2000 Rs.*

5. Key findings: The effect of users' behavioural & demographic factors on their DPA adoption and usage

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5.1. Overview of findings on the effect of behavioural and demographic factors on DPA uptake and usage across user groups

- While for women and migrant workers ease of using a DPA is associated with higher usage, gig workers' frequency of DPA use is associated with *lower* ease of use
- The frequency of using DPAs for migrant workers and gig workers is associated with more number of members in their households
- The psychological predictors don't show any significant relationship with the number of DPAs used in our model, even after controlling for demographics

**__The combined findings__ from the regressions explaining the effect of respondents' behavioural and demographic factors on DPA uptake and usage can be found between slide #42 and #50*

5.2. Summary of findings on the effect of behavioural and demographic factors on women's DPA uptake and usage

- **The number of DPAs women use at least once is associated with:**
  - women being the primary income earners in the household
  - women **not** living in Sitapur used fewer DPAs

- **The frequency of women's DPA usage is associated with:**
  - women being of a younger age
  - women living in urban areas
  - women making household decisions concerning LPG and household finances
  - greater ease of DPA use
  - positive social norms acting on women

**Results for the findings on the effect of behavioural and demographic factors on women's DPA adoption and use can be found between slides #48 and #50*

5.2. Summary of findings on the effect of behavioural and demographic factors on migrant workers' DPA uptake and usage

- **The frequency of migrant workers' DPA usage is associated with:**
  - migrant workers being less loss averse
  - migrant workers' trust while using their DPA
  - greater ease of DPA use
  - more members in their household

**Results for the findings on the effect of behavioural and demographic factors on migrant workers' DPA adoption and use can be found between slides #48 and #50*

5.2. Summary of findings on the effect of behavioural and demographic factors on gig workers' DPA uptake and usage

- **The frequency of gig workers' DPA usage is associated with:**
  - lower ease of DPA use
  - more members in their household
  - lower per capita household income
  - lower disposable income
  - men making household decisions concerning LPG and household finances

**Results for the findings on the effect of behavioural and demographic factors on migrant workers' DPA adoption and use can be found between slides #48 and #50*

6. Key findings: Unpacking the adoption of different DPAs

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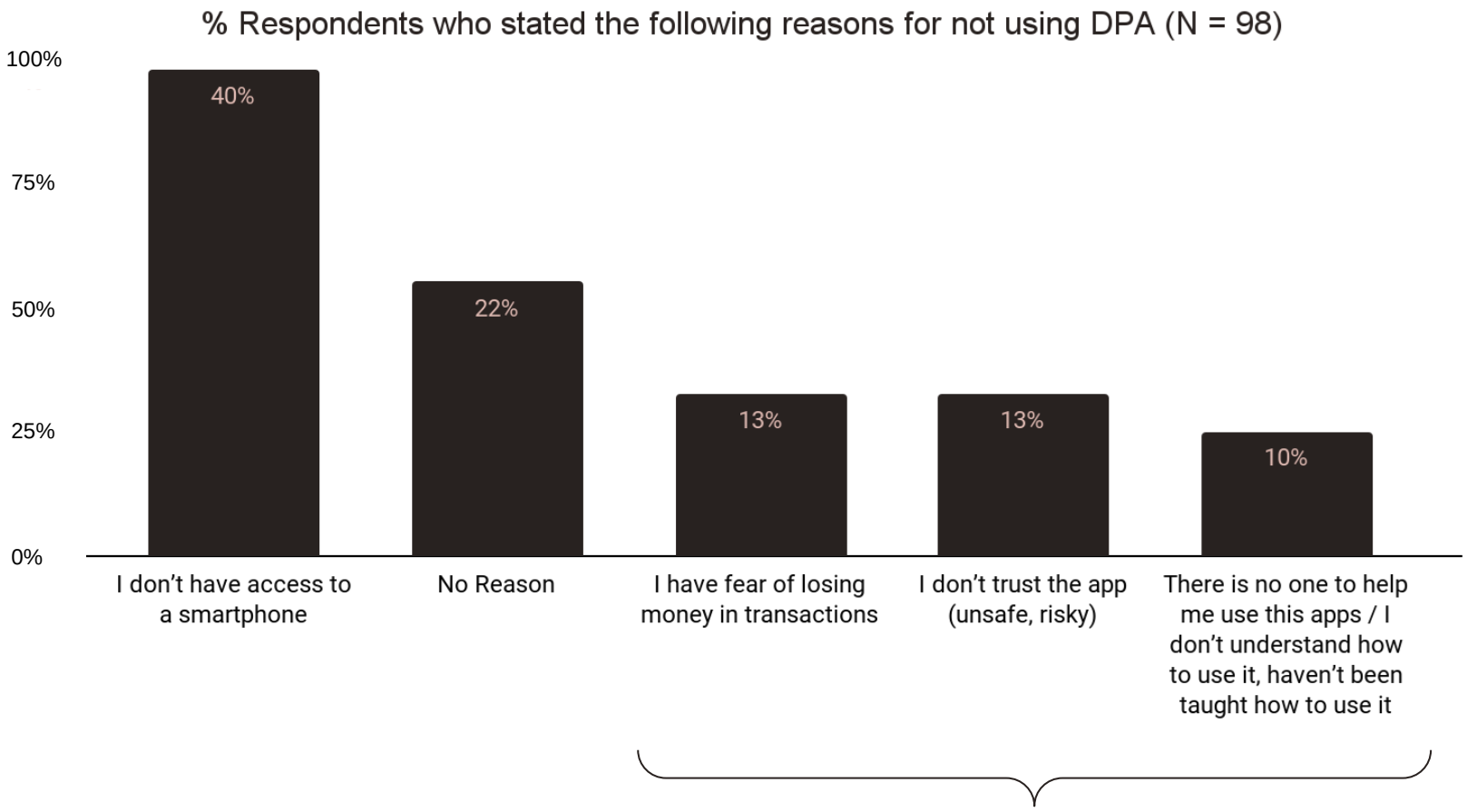
6.4. Adoption: Top five reasons for not using any DPA

Based on responses from 98 respondents other than the 262 considered in the sample.

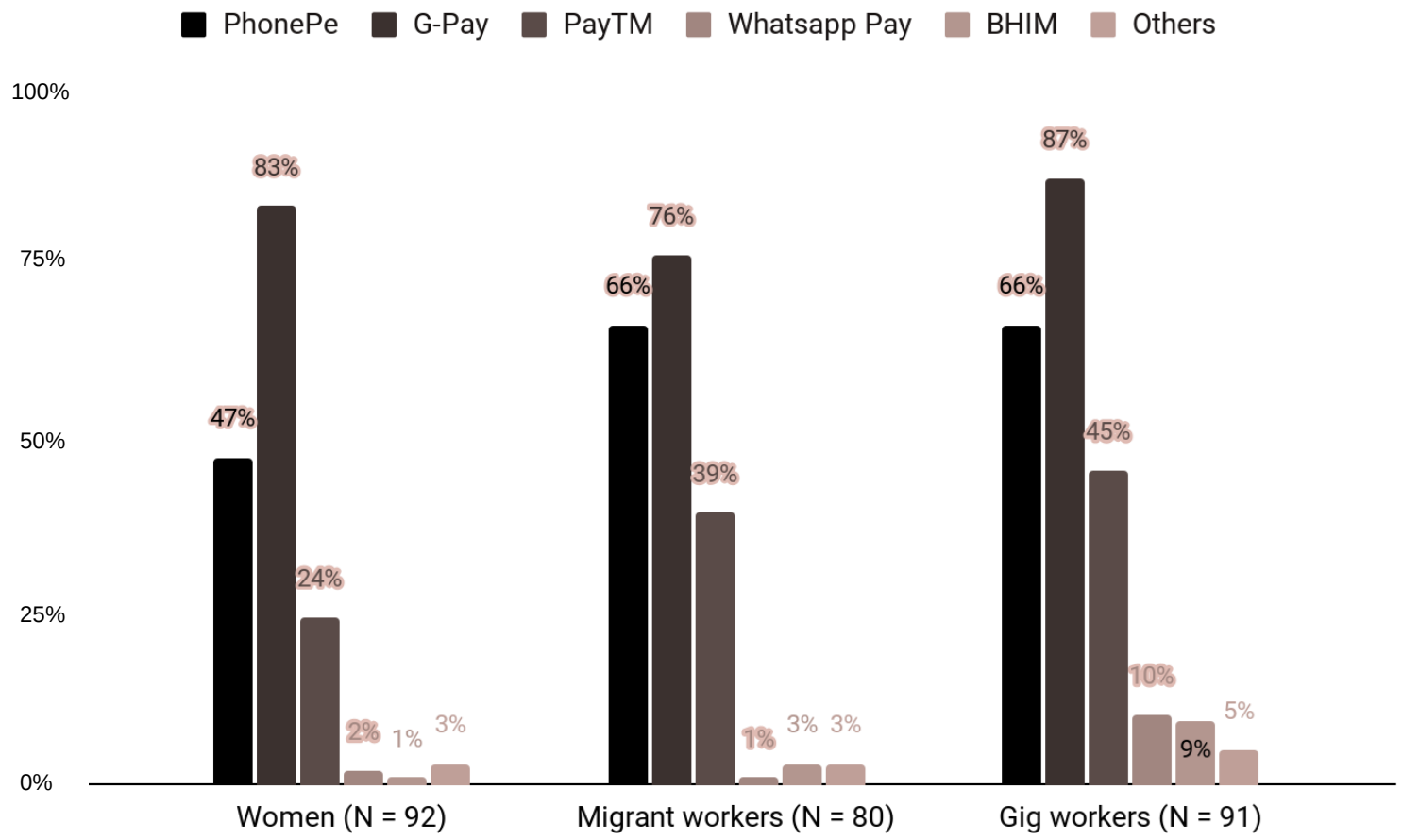


Findings

- Not having access to a smartphone is the top reason for not using DPA (40%)
- While 22% respondents report having no reason for not using any DPA, 13% have fears around losing money, and 13% do not trust the DPA
- There are significant differences in distribution of reasons between Kerala and Uttar Pradesh

6.2. Adoption: Apps that have been used at least once.

*Others include Amazon Pay and BharatPe

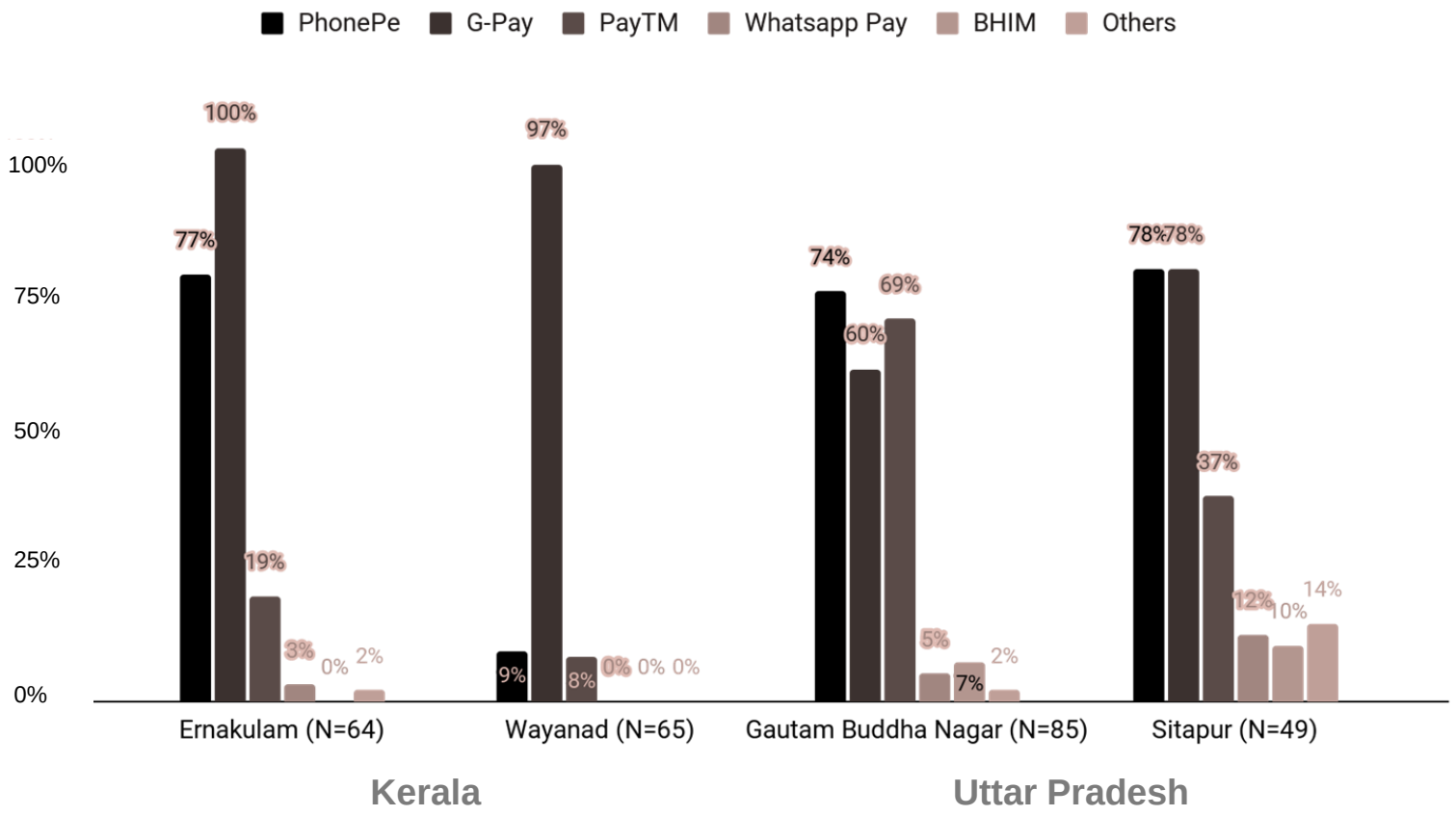


Findings

- G-Pay is the most frequently used DPA across all 3 respondent groups, followed by PhonePe and then PayTM
- Overall, G-Pay has been used at least once by 82% of the sample
- Gig workers use all apps more than other groups.

6.3. Adoption: DPAs that have been used at least once

State/district level differences are visible



Findings

- G-Pay is the most used app in Kerala
  - It has been used by all respondents from Ernakulam and 97% of respondents from Wayanad
- PhonePe is the most used app in UP
  - At a district level, PhonePe has the highest reporting of use in Gautam Buddha Nagar
  - However, in Sitapur, reported use of PhonePe and G-Pay is equal (78% of respondents)

7. Key findings: Unpacking users' preferences towards a DPA

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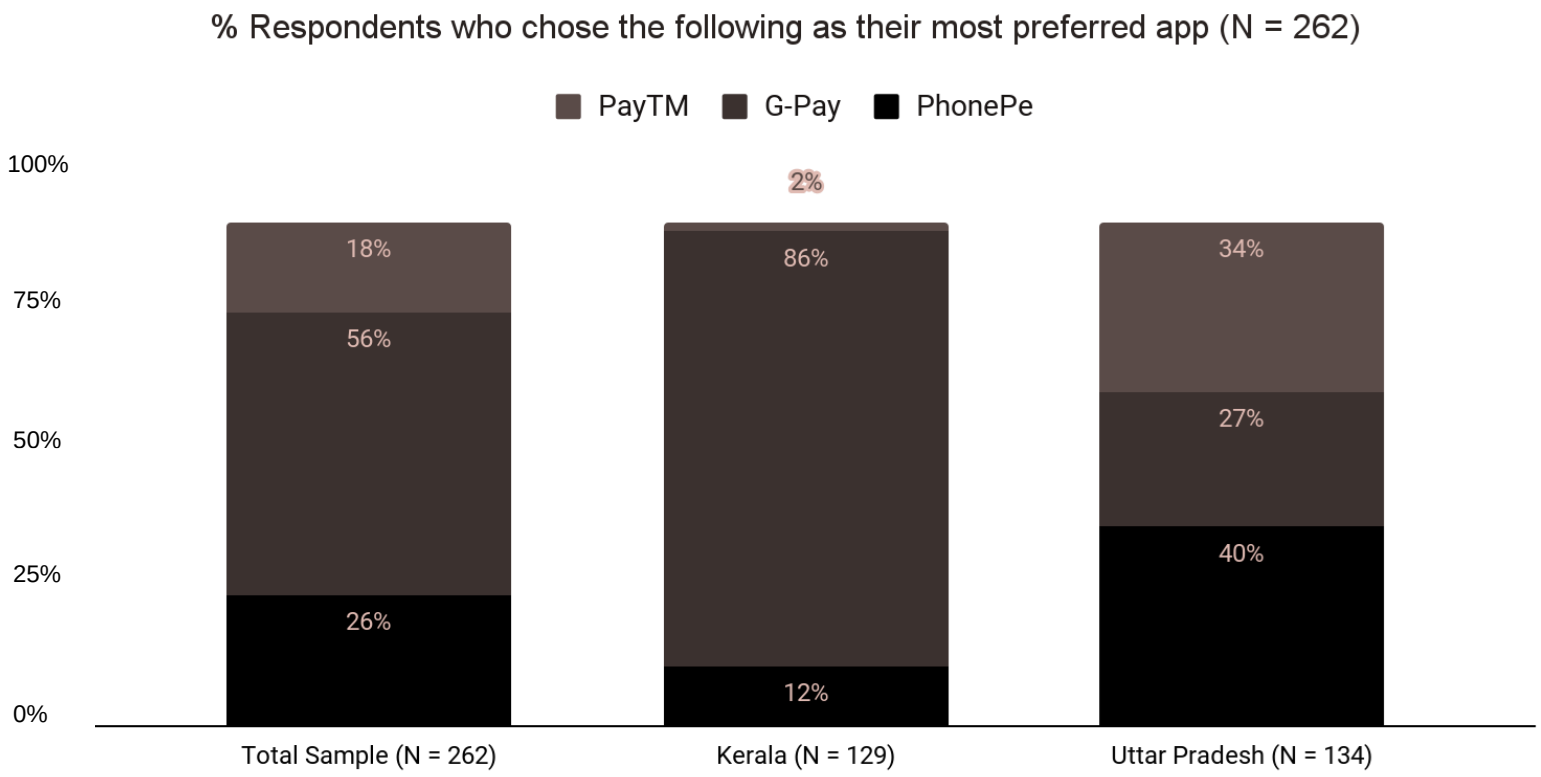
7.1. Most preferred DPA

Google Pay is the most preferred DPA, though the distribution is state and group specific

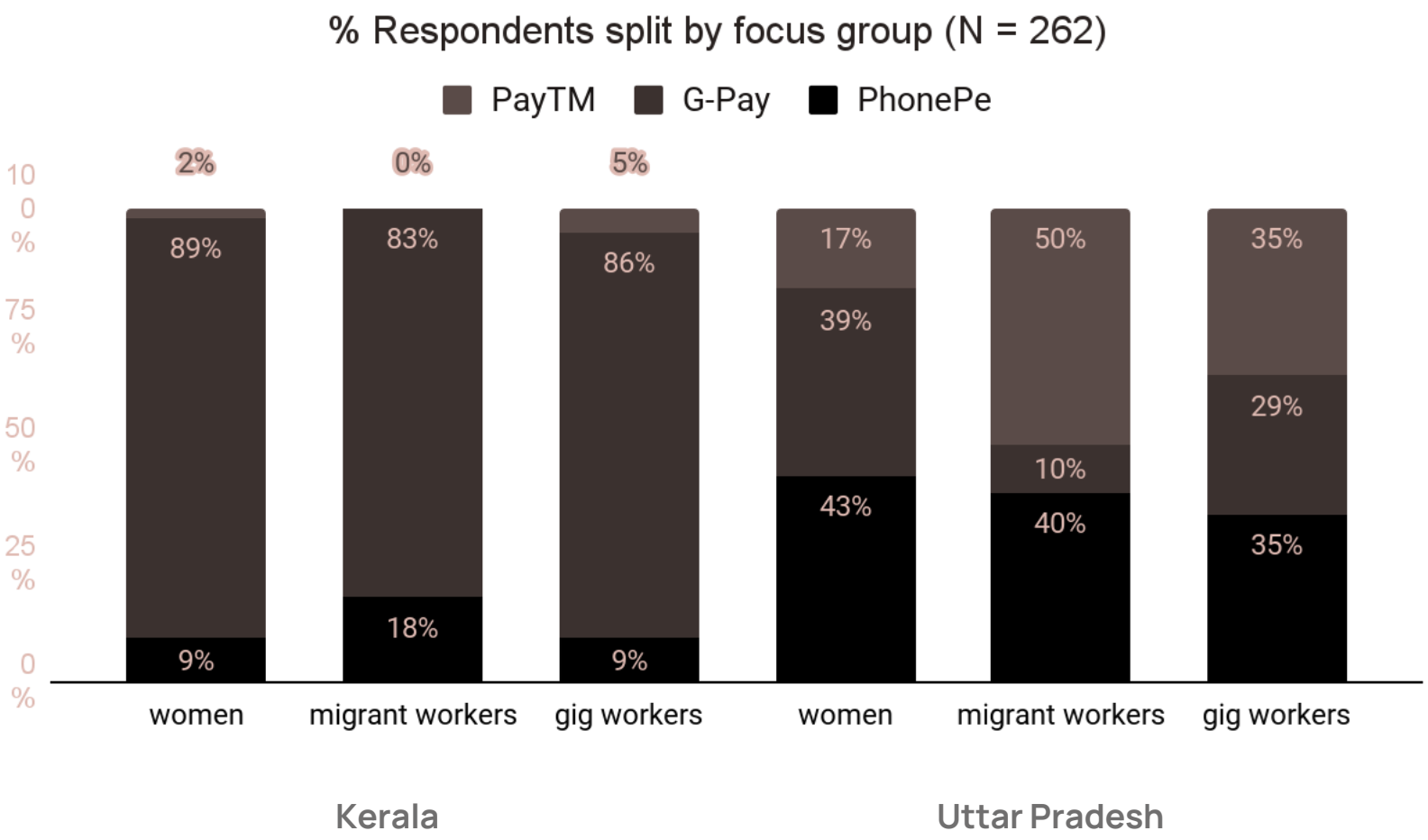


Findings

- In the overall sample, G-Pay is the most preferred DPA
- G-Pay is preferred by a majority (86%) of respondents from Kerala
- PhonePe is the most preferred DPA In Uttar Pradesh

7.2. Most preferred DPA – by focus group in each state

Google Pay is the most preferred DPA, though the distribution is state and group specific



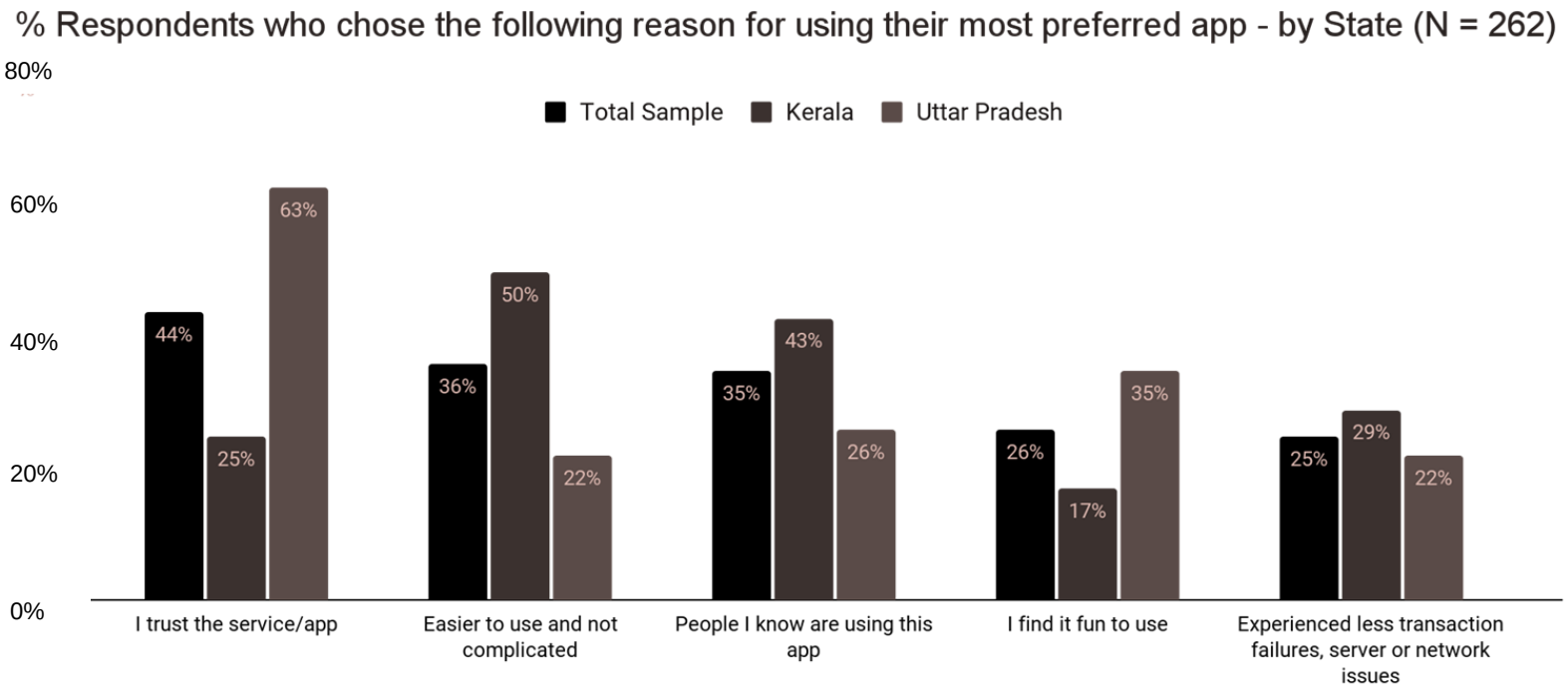
Findings

- Overall, women (64%) have a stronger preference for G-Pay than migrant workers (46.5%) and gig workers (57.5%)*
- All respondent groups in Kerala strongly prefer G-Pay, and the preference is highest among women
- However, in Uttar Pradesh, respondent preferences vary across groups:
  - women mostly prefer PhonePe (43%)
  - half of the migrant workers prefer PayTM
  - gig workers prefer PayTM and PhonePe equally, followed by G-Pay

** Average of preferences between both states*

7.3. Reason for choosing the most preferred app – by state

Trust is a leading motivator for DPA preference in UP, while ease of use is valued most in Kerala

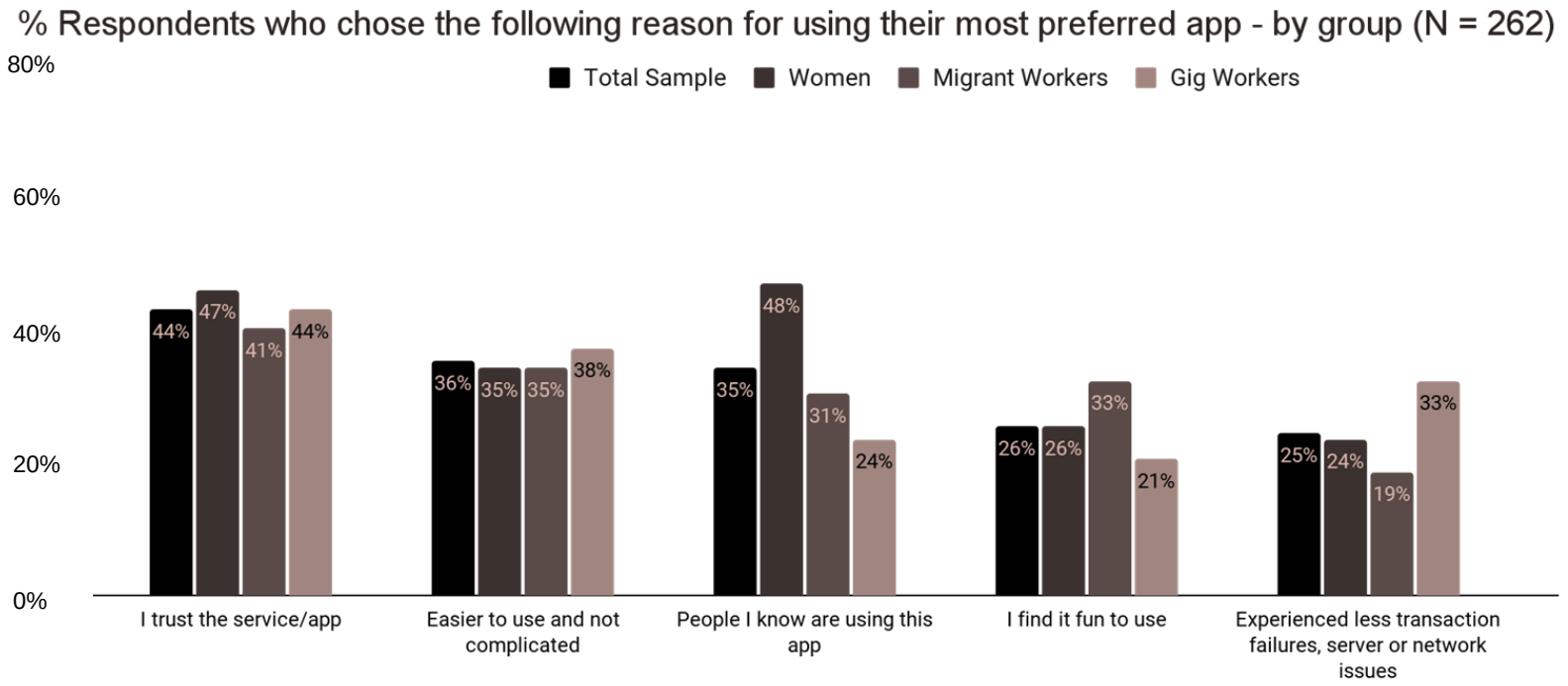


Findings

- Overall, trust in the DPA is the leading reason for choosing the most preferred DPA
- Trust in the DPA is particularly important for respondents in Uttar Pradesh
- On the other hand, the ease of using a DPA is the most cited reason for respondents from Kerala preferring a DPA
- Following trust and ease of use, social proof and the entertainment quotient ("fun to use") of using a DPA are also considerations when choosing a DPA

7.4. Reason for choosing the most preferred app – by group

Trust and ease of use are leading reasons overall. However, social proof may be particularly important for women



Findings

- All respondent groups report trust in the DPA and ease of DPA use as the reasons for preferring a DPA
- Women prefer a DPA based on people in their social networks using that DPA - suggesting the importance of peer networks and social proof
- Migrant workers prefer a DPA based on their trust in that DPA. Migrant workers also care about the DPA's entertainment quotient (more than the other groups).
- Gig workers' preference is motivated by their trust in the DPA. They are also motivated by their past experience of issues (more than the other groups).

8. Key findings: Unpacking the usage of DPA

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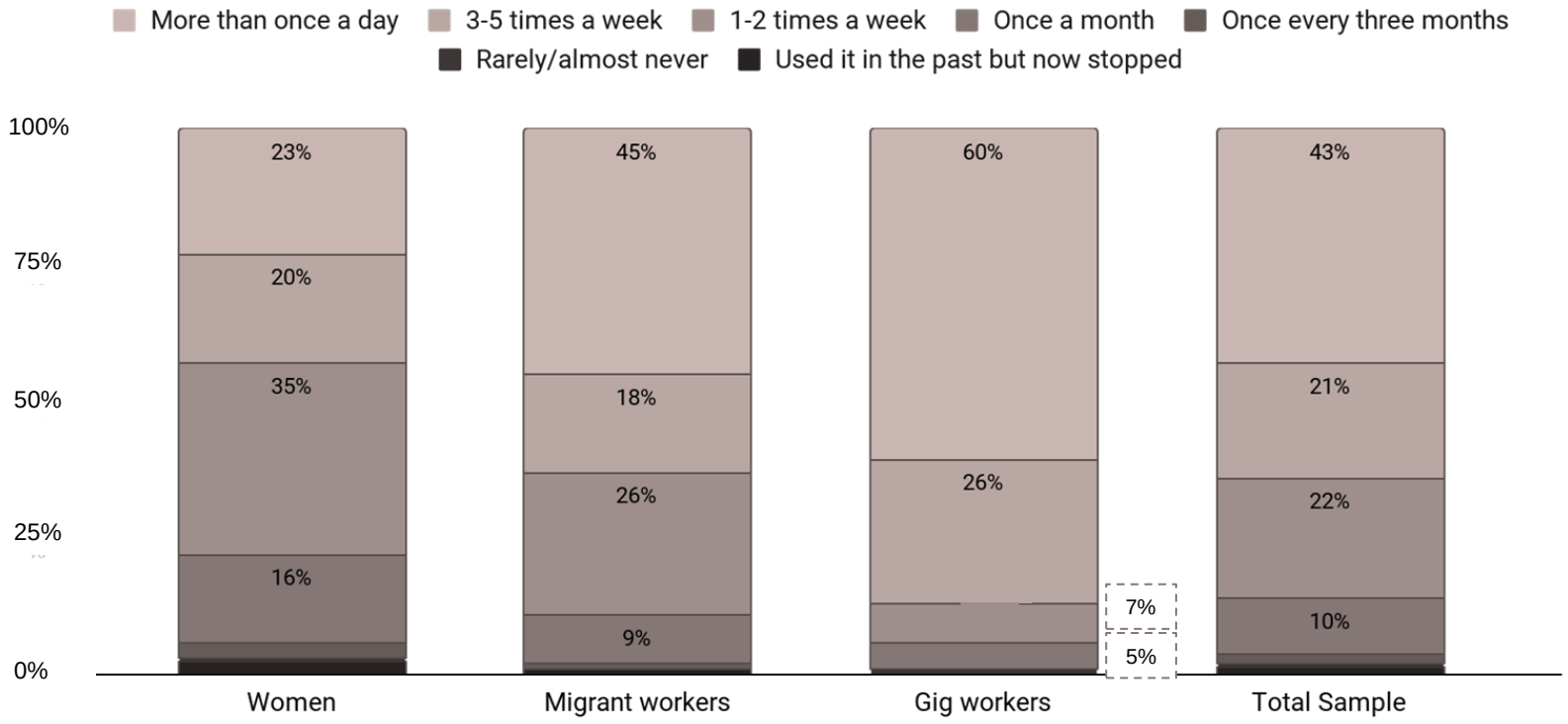
8.1. Frequency of using DPA

Fewer respondents use PayTM, but use it more frequently than Google Pay and PhonePe



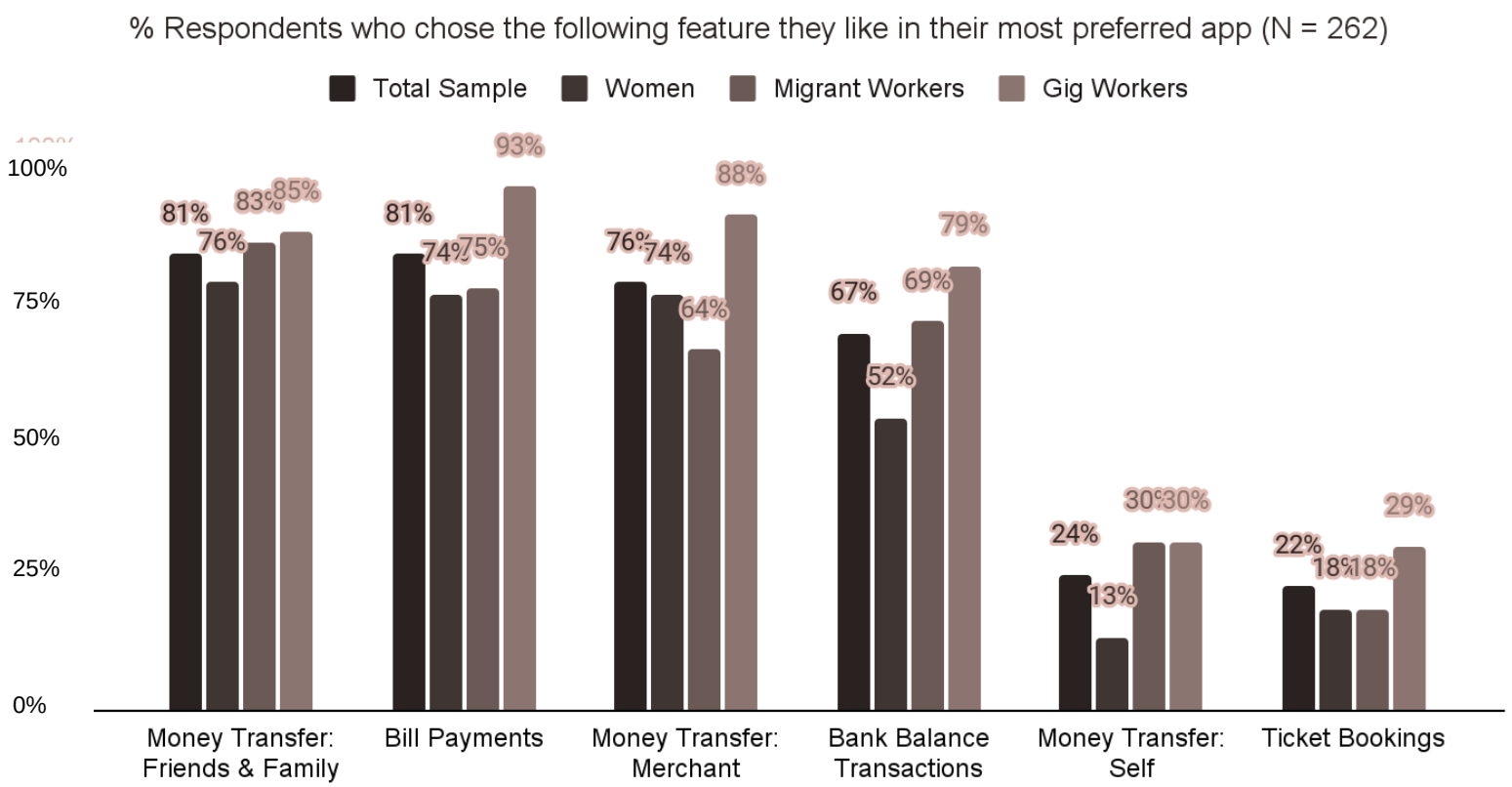
Preferred app	Mean frequency: 1 = Used in past but stopped, 7 = More than once a day			
PhonePe (N=68)	5.75	5.87	6.86	6.13
G-Pay (N=147)	4.97	5.43	6.00	5.44
PayTM (N=48)	6.33	6.85	6.89	6.77

Findings

- Overall, 43% respondents used their DPA(s) more than once a day.
- Gig workers use DPAs most frequently with 60% using a DPA more than once a day.
- Migrant workers use DPAs second-most frequently with 45% using a DPA more than once a day.
- Women use DPAs least frequently, with only 23% using a DPA more than once a day
- While fewer respondents prefer PayTM, it is used more frequently than G-Pay & PhonePe. It appeared from the field that PayTM had positioned itself at merchant outlets in this sample, leading to greater frequency.

8.2. Top features in the most preferred DPA

Money transfer and bill payments are most liked DPA features across groups

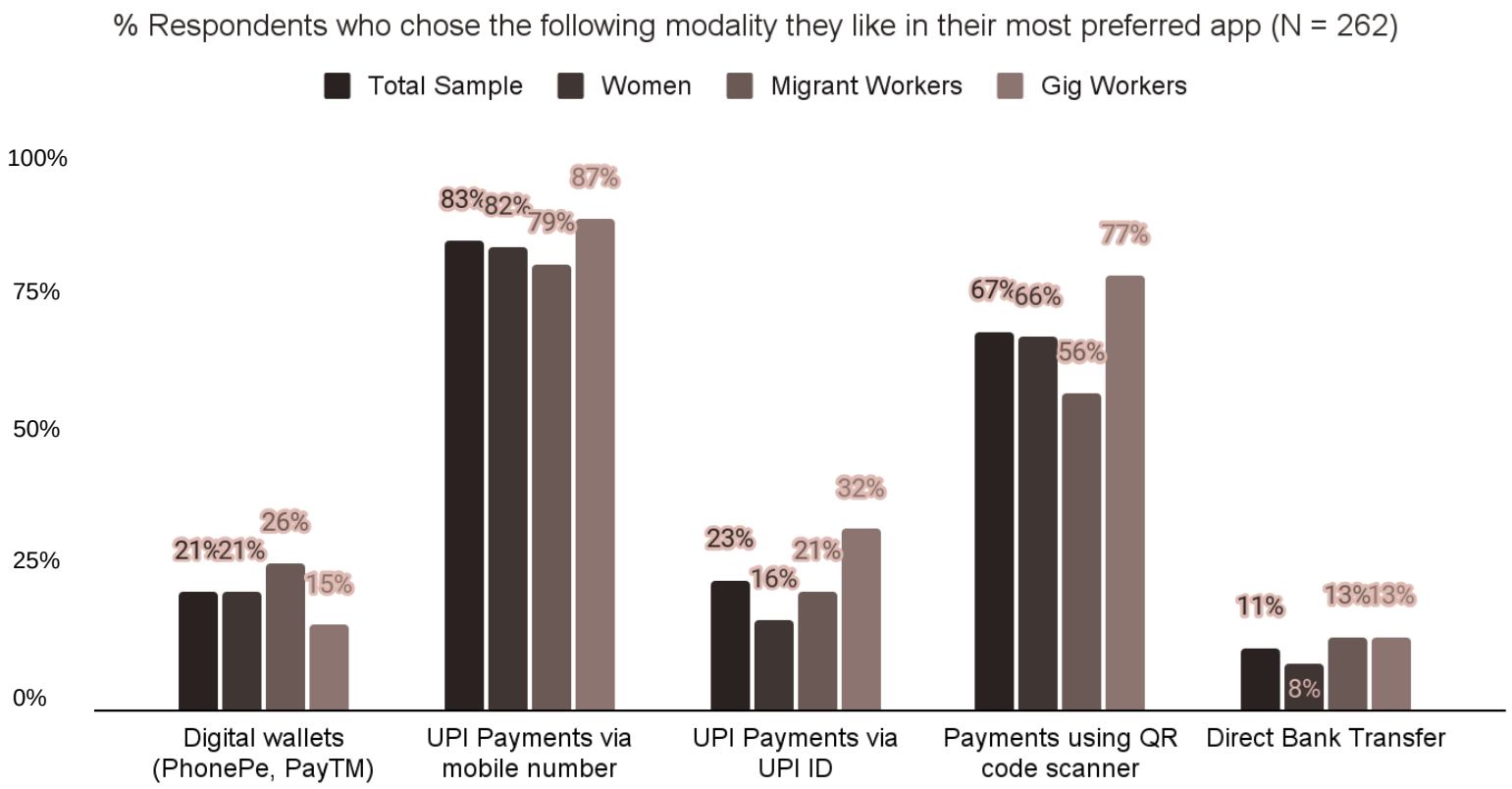


Findings

- Money transfer to friends and family is the dominant use case for women and migrant workers, followed by bill payments
- While gig workers also value the feature of money transfer to friends and family, their dominant use case is bill payments, followed by money transfer to a merchant and then money transfer to friends and family

8.3. Most used modalities in the most preferred app

UPI payments via mobile number is the most used modality, followed by payments via QR code scanner



Findings

- UPI payments via mobile number is the most used modality followed by payment via QR code scanner across the three respondent groups.
- Gig workers are most likely to use QR codes and UPI IDs to make payments.
- Gig workers are less likely to use digital wallets through PayTM and PhonePe.

9. Key findings: Unpacking the challenges users face in using DPA

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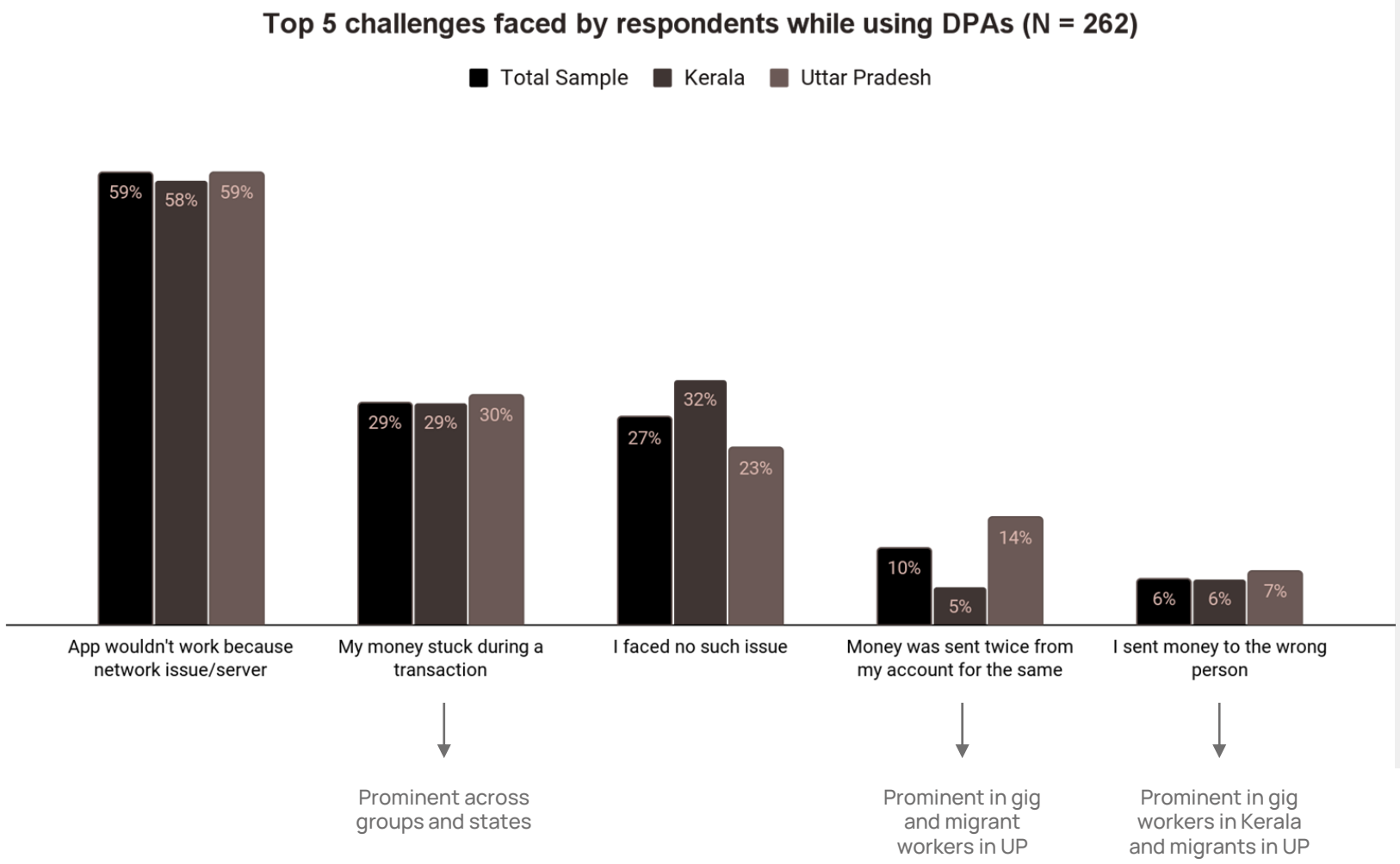
9.1. Challenges faced while using DPAs

Network or bank server issue is the most cited challenge across all response groups

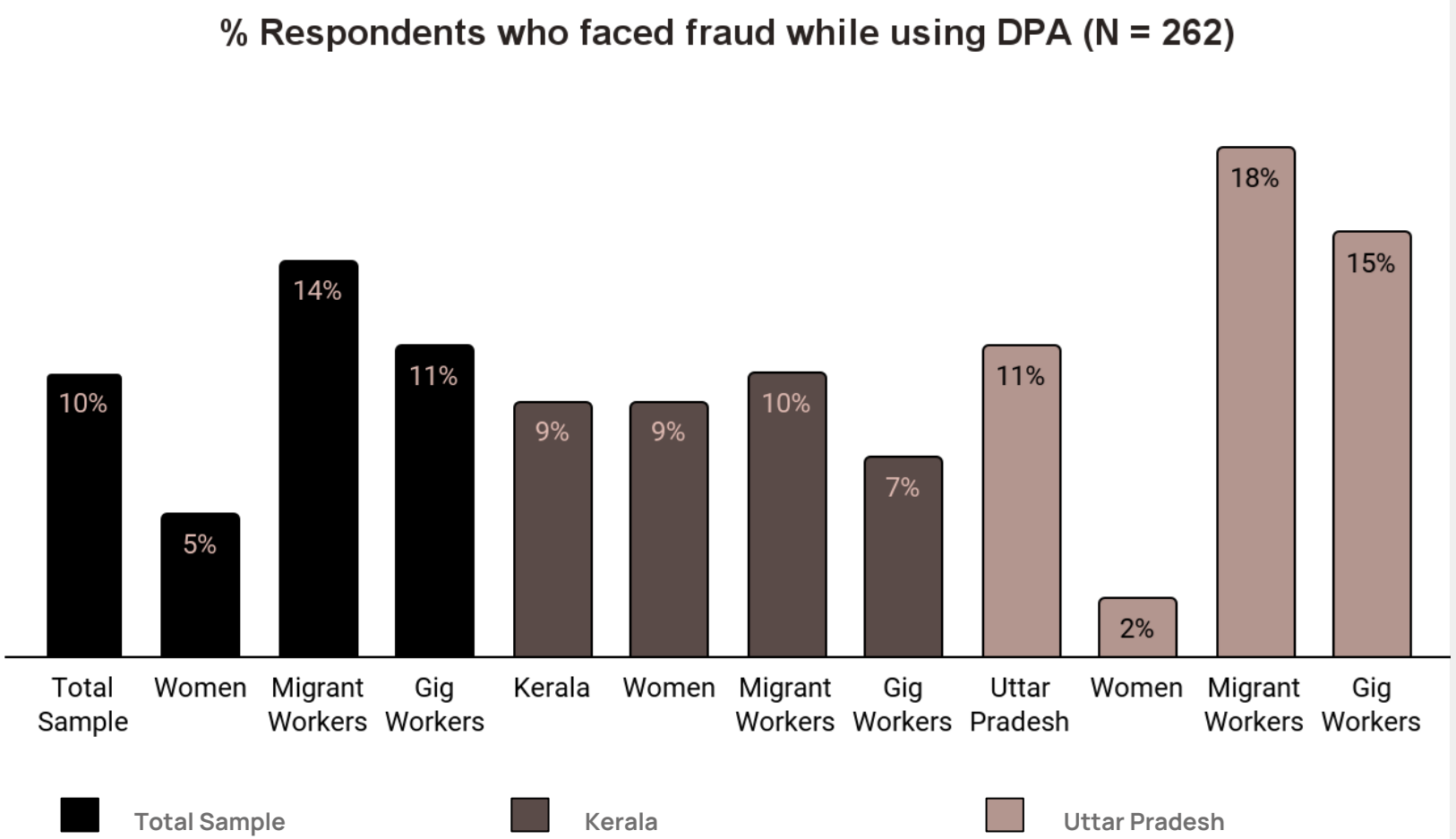


Findings

- Issues with network/server is the top challenge followed my money being stuck in a transaction for respondents across states and groups
- Money being sent twice from the bank account was a particularly prominent challenge for gig and migrant workers in Uttar Pradesh
- Fewer respondents in Kerala report they did not face an issue compared to respondents in Uttar Pradesh
- Sending money to the wrong person was reported by a few respondents, but this mainly comprised migrant workers in Uttar Pradesh and gig workers in Kerala

9.2. Experiences of fraud

10% of the respondents faced some form of fraud while using DPAs, with migrant workers most likely to experience frauds

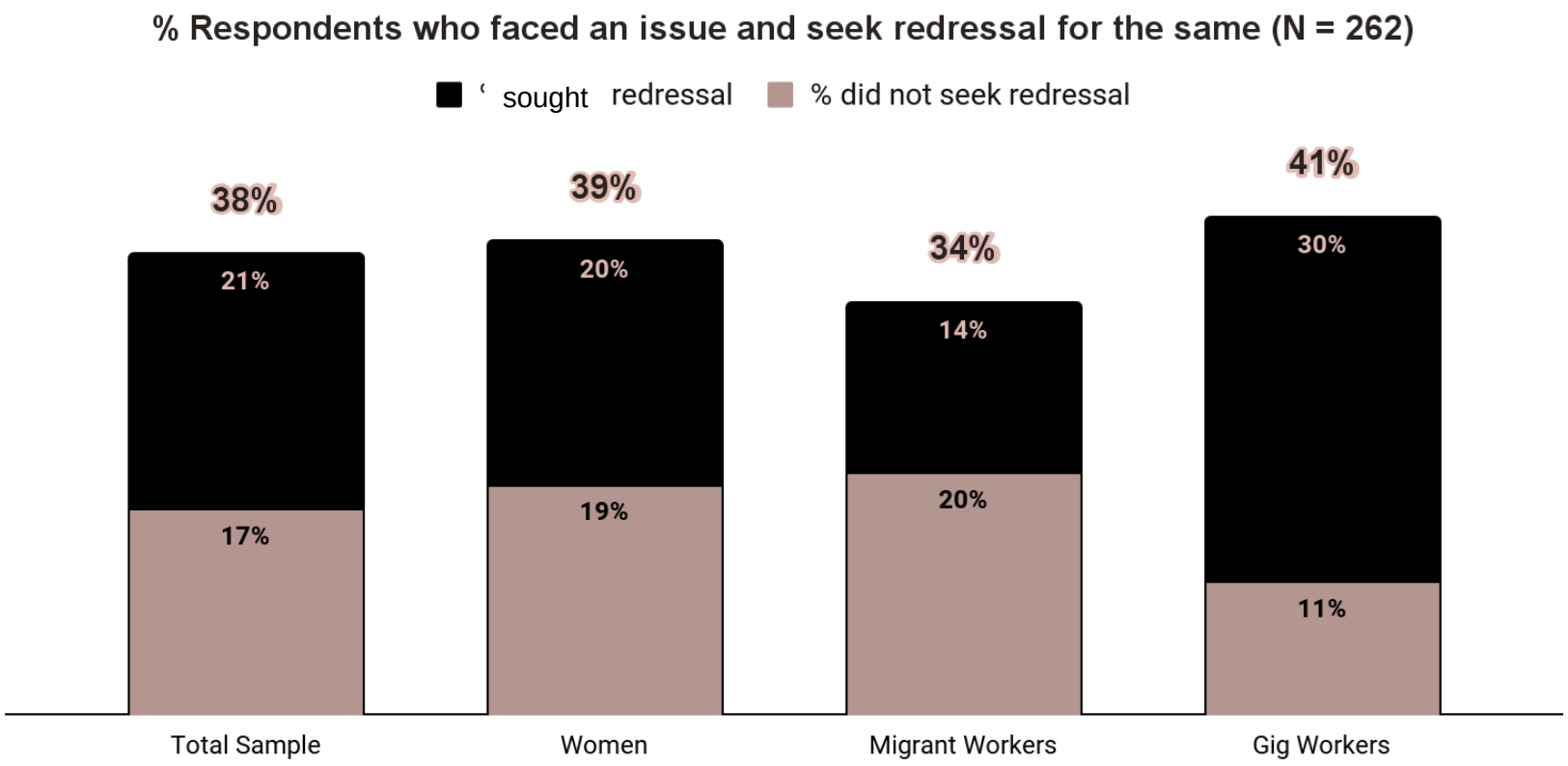


Findings

- Overall, only 24 respondents faced some form of fraud. These numbers may not be indicative of users' experience generally
- Across the sample, women were the least likely to experience fraud (5%), while migrant workers were the most likely (14%)
- Fraud instances across respondents is similar in Kerala, but it is highest migrant workers (10%) and lowest for gig workers (7%)
- Migrant workers in Uttar Pradesh have the highest experience of fraud (18%), followed by gig workers (15%)
- More women in Kerala than in Uttar Pradesh report frauds

9.3. Redress sought by respondents who faced issues

50% of respondents with issues sought redress

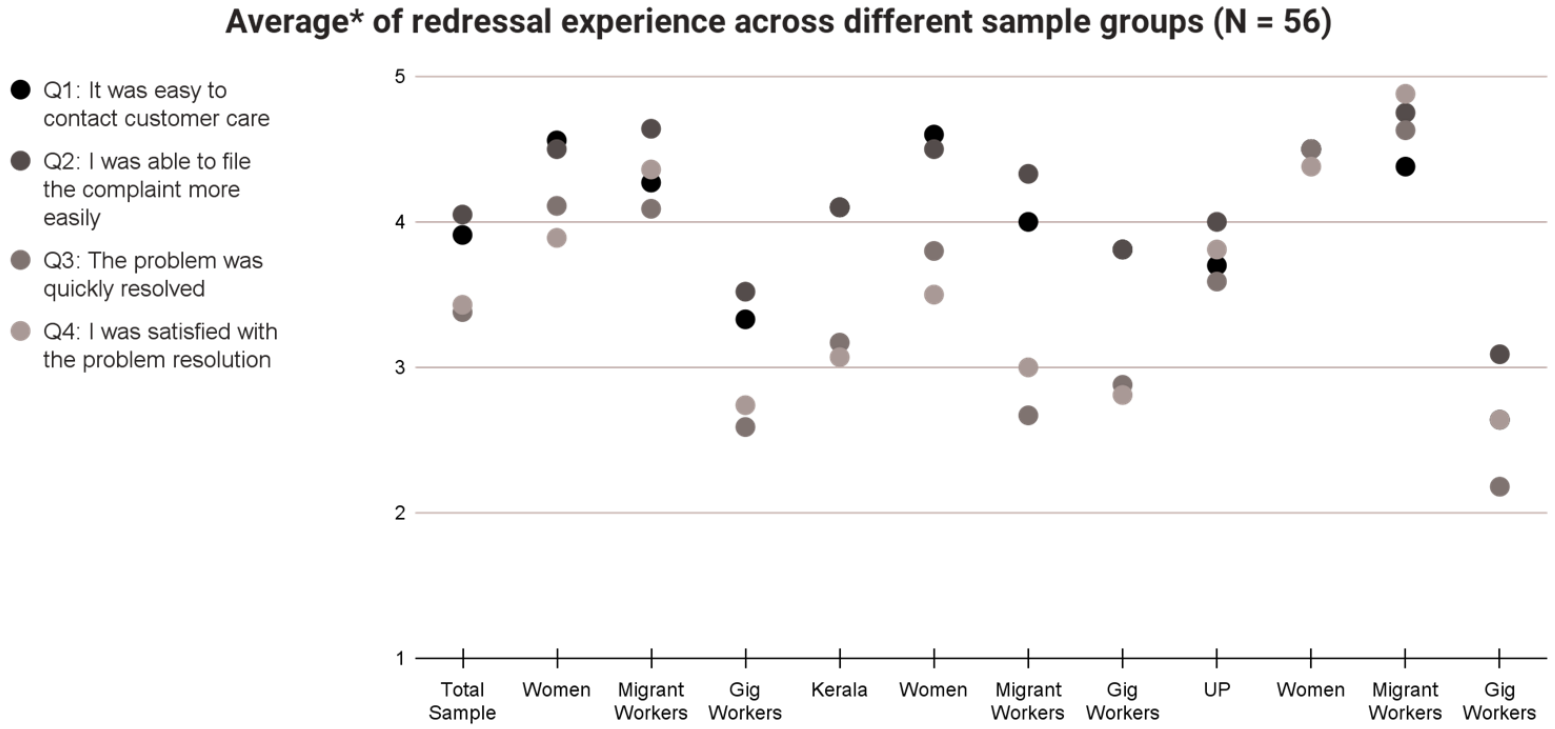


Findings

- A moderate number of respondents in this sample (38%) reported facing issues while using DPA is moderate
- Around half of these respondents sought grievance redress for these issues
- A higher proportion of gig workers sought redress when they faced an issue compared to the other groups
- Around 70% of gig workers, around 50% of the women, and around 41% of the migrant workers sought redress.

9.4. Experience with redress

(Completely disagree = 1; completely agree = 5)

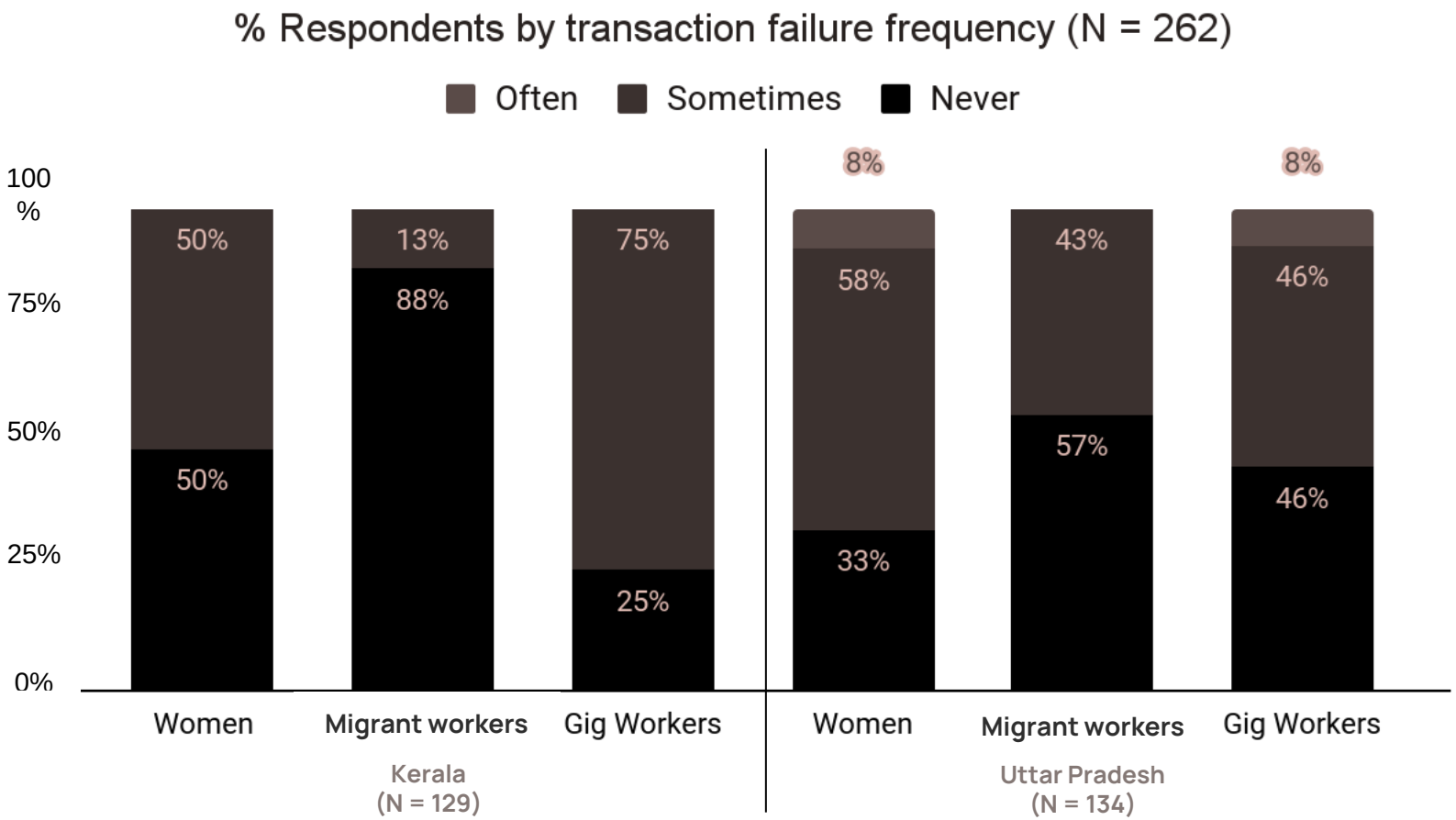


Findings

- Overall, the respondents believed that it was easy to contact customer care and file a complaint. However, group-wise findings showcase that this agreement is lower for gig workers, mainly those in Uttar Pradesh.
- Fewer respondents were satisfied with the resolution they obtained, and the speed with which they were resolved.

* For each redressal experience question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more “completely agree” responses were given compared to the others.

9.5. Frequency of transaction failures and reports of refunds taking more than 7 days



Refund >7days	74%	75%	63%	73%	71%	73%

Findings

- Women and gig workers report facing transaction failures in the sample:
  - Half of the women in Kerala and 66% of the women in Uttar Pradesh report facing a transaction failure
  - 75% of the gig workers in Kerala and 54% of the gig workers in Uttar Pradesh report facing a transaction failure
  - Only 13% of the migrant workers in Kerala and 43% in Uttar Pradesh report facing a transaction failure
- More migrant workers report never facing a transaction failure compared to other groups
- Around 3 out of 4 people facing transaction failure reported that it took over 7 days for their refund

10. Key findings: Unpacking users' knowledge about DPAs

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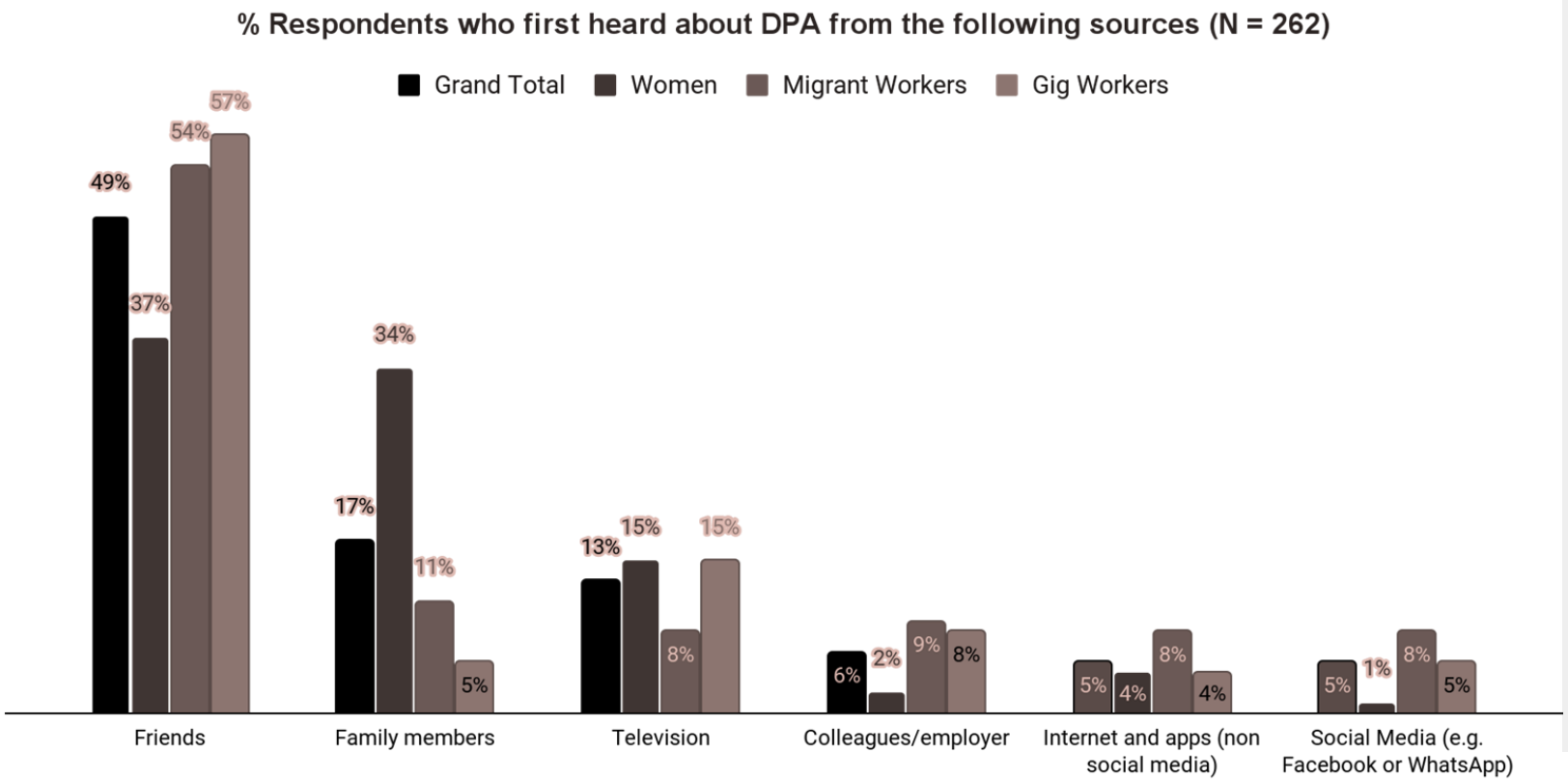
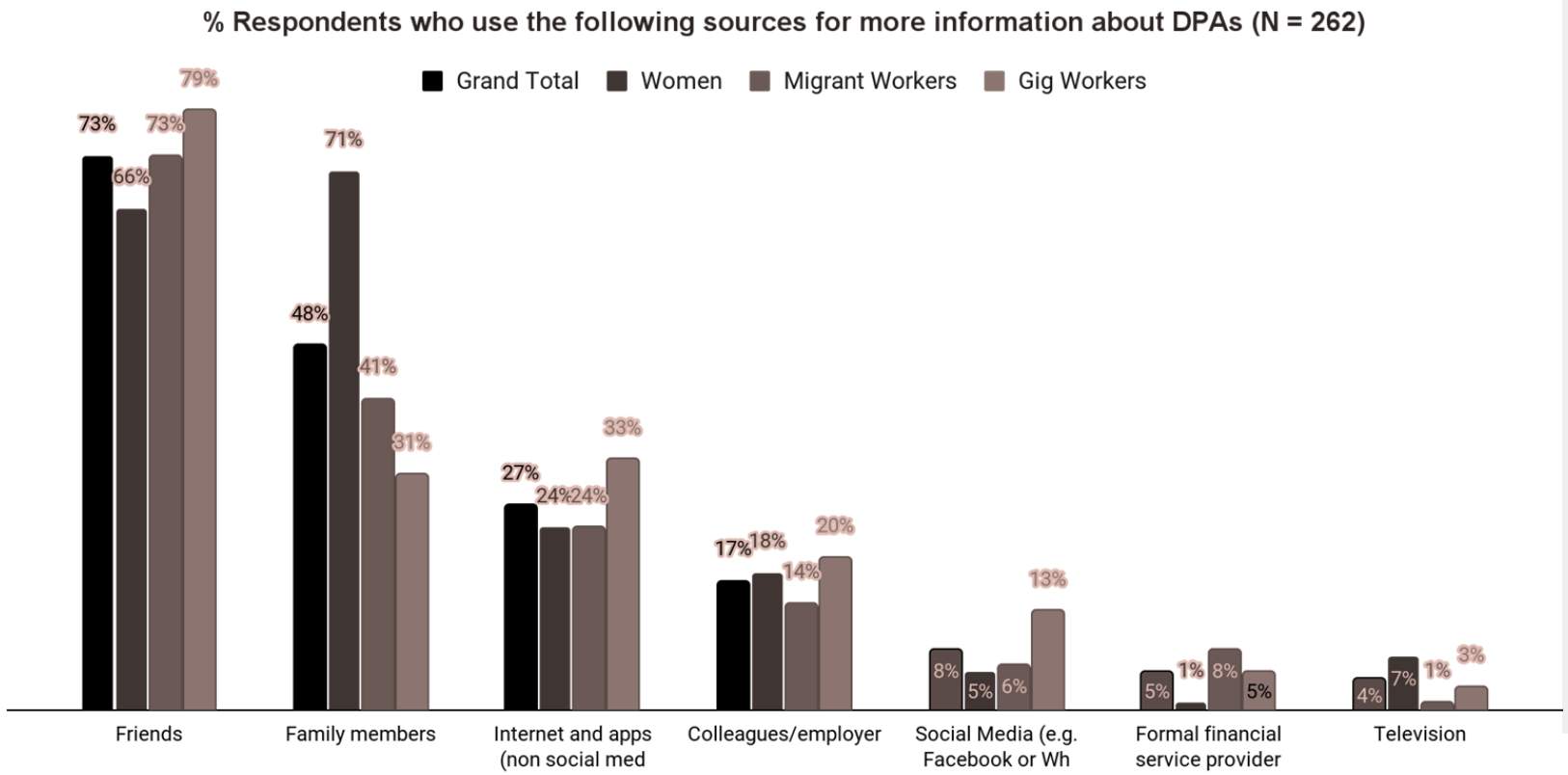
10.1. Top sources from where respondents heard about DPAs for the first time



Findings

- All three user groups are most likely to hear about DPAs for the first time from friends. Gig workers most report hearing from friends and women least report so.
- Women are more likely to report family members as a source of information than migrant workers and gig workers
- Internet and social media were the least reported sources of information

10.2. Top sources respondents for knowing more about DPAs



Findings

- Respondents approach friends and family the most when they want to learn more about DPA – similar to the findings on who the respondents first heard about DPA from
- The internet is the third most commonly used source to get more information about DPA

11. Appendix

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11.1. Sample demographics for gig workers

Indicators*	Digital Gig Workers (N=70)	Traditional Gig Workers (N = 21)
Age	28	28.5
HH Income	₹66,821	₹25,667
Disposable Income	₹7,660	₹7,057
% Securing jobs outside his primary occupation	47%	14%
% Completed secondary school or higher	100%	86%
# HH Members	5.7	5.4
% Needs help to use a smartphone	27%	38%
% Uses any DPA daily	60%	61%
% Receive income/allowance through bank or DPA	71%	29%
% Primary income earner	52%	48%
% Requiring smartphone for their daily job	99%	48%
% Confident in using any app on their smartphone	77%	70%

Findings:

Digital gig workers are significantly:

- Less likely to require help using their smartphone

Traditional Gig workers are significantly:

- Less likely to report higher income
- Less likely to be the primary income earner
- Less likely to have completed secondary school
- Less likely to take up jobs which are different from their primary occupation.
- Less likely to receive income through bank or DPA
- Less likely to require smartphones for their jobs

** The values indicate average (median in case of Age) of each indicator for digital and traditional gig workers separately*

12. Regression model construction and results

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12.1. Methodology: Regression models were built for each respondent group separately

1 model for each respondent group		Control Variables		
Dependent Variable	**Regression Type**	**Demographics**	**Psychological (Index Scores)**	**DPA Challenges**
# DPA used at least once Discrete variable Range: 1 - 6 Mean: 1.9	Linear Regression	Age Location = Urban Married = Yes Education Level # HH Members Primary Income Earner = Yes Per Capita HH Income (Log) HH Disposable Income (Log) Division of Labor Mode of receiving income District	Risk Perception of DPA Usefulness of DPA Ease of use of DPA Trust (generalized) Trust in DPA Positive Social Norms towards DPA Confidence in using DPA Risk Averse Loss Averse Intrinsic Motivation Extrinsic Motivation Self Efficacy	Network/Smartphone issues faced Would recommend preferred app = Yes Faced issues in most preferred app = Yes Past redressal = Yes Faced previous challenges while using DPA
Frequency of using DPA Ordinal variable Scale: 1-7 1 = lowest; 7 = highest	Ordinal Logistic Regression			

12.2. Variable construction: Outcomes

			Average Values		
Outcome variable	**Data type**	**Construction**	**Women**	**Migrant workers**	**Gig workers**
Adoption	Discrete (1, 2, 3, 4, 5, 6)	# digital payment apps has the respondent ever used	1.6	1.9	2.2
	Discrete (1, 2, 3, 4, 5, 6)	# digital payment apps does the respondent use frequently, at present	1.5	1.8	2.0
Frequency of usage	Ordinal scale (1 to 7)	Frequency of usage of the most used app	23% mention more than once a day	45% mention more than once a day	60% mention more than once a day
	Ordinal scale (1 to 7)	Last time any DPA was used	20% report today	30% report today	47% report today

12.3. Variable construction: Predictors

**Results for the individual findings on the outcome variables can be found onwards from slides #53*

Outcome variable	Data type	Construction	Average Values		
			Women	Migrant workers	Gig workers
Perceived Risk (4 separate variables)	Ordinal (score from 1-5)	Mean of risk perception in using DPA, such as losing money due to fraud/mistake and not getting redress	3.5	3.5	3.3
Usefulness (4 separate variables)	Ordinal (score from 1-5)	Mean of how useful DPA are, in terms of convenience, time saved, being able to do something not possible without it, and giving control over finances	4.3	4.4	4.5
Ease of Use (4 separate variables)	Ordinal (score from 1-5)	Mean of how easy DPA is to use, i.e. requires no mental effort, not a drain on the phone, rare instances of error while using it	4.3	4.2	4.3
Trust in DPA (3 separate variables)	Ordinal (score from 1-5)	Mean of how safe and reliable DPA is for conducting daily activities, as opposed to cash and for bigger transactions	4.1	4.3	4.3
Intrinsic Motivation (3 separate variables)	Ordinal (score from 1-5)	Mean of motivation to use DPA that comes from self, because it is fun to use, provides some benefit, etc.	4.2	4.4	4.4
Extrinsic Motivation (4 separate variables)	Ordinal (score from 1-5)	Mean of motivation to use DPA derived from outside , such as, others using it or DPA providing discounts	3.4	3.7	3.7

12.4. Variable construction: Additional predictors

Outcome variable	Data type	Construction	Average Values		
			Women	Migrant workers	Gig workers
Social Norm (4 separate variables)	Ordinal (score from 1-5)	1. Agreement for male HH members preferring DPA 2. Agreement for female HH members preferring DPA 3. Agreement for community outlook and respect towards use of DPA 4. Agreement for backlash from family for using DPA	3.5	3.6	3.6
Confidence (4 separate variables)	Ordinal (score from 1-5)	Mean of confidence in using DPA (can perform a transaction by oneself, can ask for redress, has sufficient knowledge)	4.0	4.0	4.3
Previous Challenge (4 separate variables)	Ordinal (score from 1-5)	Mean of agreement on challenges faced in the past, including inputting incorrect details, money getting stuck	4.0	4.1	4.1
Generalized Trust (3 separate variables)	Ordinal (score from 1-5)	Mean of how much others can be trusted	2.7	3.3	3.2
Redressal	Binary	Binary for whether the respondent has needed to seek redressal for DPA related issues	0.2	0.1	0.3

12.5. Model results: Number of DPAs used at least once

	Dependent: Number of DPA used	Model Estimates		
		Women (N = 92)	Migrant Workers (N = 80)	Gig Workers (N = 91)
PSYCHOLOGICAL PREDICTORS	Risk Averse	0.08	-0.34	-0.18
	Loss Averse	-0.40	-0.05	0.36
	Self-Efficacy	0.14	0.05	0.06
	Intrinsic Motivation	0.13	0.03	0.11
	Extrinsic Motivation	0.05	0.01	-0.06
	Generalised Trust	-0.13	-0.07	0.03
	DPA: Trust while using	0.21	0.25	0.07
	DPA: Ease of Use	-0.09	0.16	0.30
	DPA: Risk Perception	-0.18	-0.11	-0.12
	DPA: Usefulness	-0.14	0.01	-0.29
	DPA: Positive Social Norms	0.17	-0.01	-0.11
	DPA: Confidence while using	0.01	-0.16	0.30
	DPA: Faced challenges in past	0.01	0.04	-0.17

Findings

- The psychological predictors do not predict number of DPA used in either of our three respondent groups in our model.

12.6. Model results: Number of DPAs used at least once

	Dependent: Number of DPA used	Model Estimates		
		Women (N = 92)	Migrant Workers (N = 80)	Gig Workers (N = 91)
DEMOGRAPHIC CONTROLS	Age	-0.00	-0.00	-0.00
	Location = Urban	-0.93	0.16	0.20
	Is Married	0.26	0.57^	-0.03
	Education = College	-0.21	0.08	-0.02
	Education = 6-12th	-	0.18	-
	# HH Members	-0.00	0.04	0.00
	Is primary income earner	**0.93***	-0.22	-0.39
	Per Capita HH Income (Log)	-0.50	0.08	0.78^
	Disposable Income (Log)	0.04	-0.09	-0.18
	Division of Labor = Female	-0.21	-0.05	0.10
	District: GB Nagar	-0.23	-0.49	0.20
	District: Sitapur	**-1.32***	-0.96	0.67
	District: Wayanad	-1.35^	-1.03^	-0.45

Findings

- For women:
  - Being the primary income earner was significantly associated with higher number of DPA used.
  - Sitapur was associated with lower number of DPA used.

12.7. Model results: Frequency of DPA use

	Dependent: Frequency of DPA use	Model Estimates		
		Women (N = 92)	Migrant Workers (N = 80)	Gig Workers (N = 91)
PSYCHOLOGICAL PREDICTORS	Risk Averse	-0.93	-0.30	1.23
	Loss Averse	-0.57	**-1.95***	0.49
	Self-Efficacy	-0.56	0.77	-0.51
	Intrinsic Motivation	0.08	0.47	1.74^
	Extrinsic Motivation	0.33	-0.44	0.87
	Generalised Trust	0.46	-0.33	-0.37
	DPA: Trust while using	0.47	**1.36***	0.58
	DPA: Ease of Use	**1.07***	**1.06***	**-1.46***
	DPA: Risk Perception	-0.27	-0.45	0.35
	DPA: Usefulness	-1.20	-0.08	0.67
	DPA: Positive Social Norms	**0.72***	-0.23	-0.23
	DPA: Confidence while using	-0.34	-0.22	0.17
	DPA: Faced challenges in past	-0.14	0.06	0.41

Findings

- For women, higher frequency of DPA use was significantly associated with:
  - Higher DPA ease of use
  - Increased positive social norms
- For migrant workers, higher frequency of DPA use was significantly associated with:
  - Less loss aversion
  - Higher trust in DPA
  - Higher DPA ease of use
- For gig workers, higher frequency of DPA use was significantly associated with:
  - Lower DPA ease of use

12.8. Model results: Frequency of DPA use

	Dependent: Frequency of DPA use	Model Estimates		
		Women (N = 92)	Migrant Workers (N = 80)	Gig Workers (N = 91)
DEMOGRAPHIC CONTROLS	**Age**	**-0.012****	0.09^	-0.06
	Location = Urban	**2.50*****	-0.03	1.22
	Is Married	0.38	-0.43	0.48
	Education = College	-0.87	-0.31	1.25
	Education = 6-12th	-	-0.12	-
	# HH Members	0.04	**0.29***	**0.92****
	Is primary income earner	1.71^	-0.26	0.63
	Per Capita HH Income (Log)	-1.24	1.96	**-3.02***
	Disposable Income (Log)	-0.24	-0.42	**-1.01***
	Division of Labor = Female	**1.86***	2.01^	**-4.39***

Findings

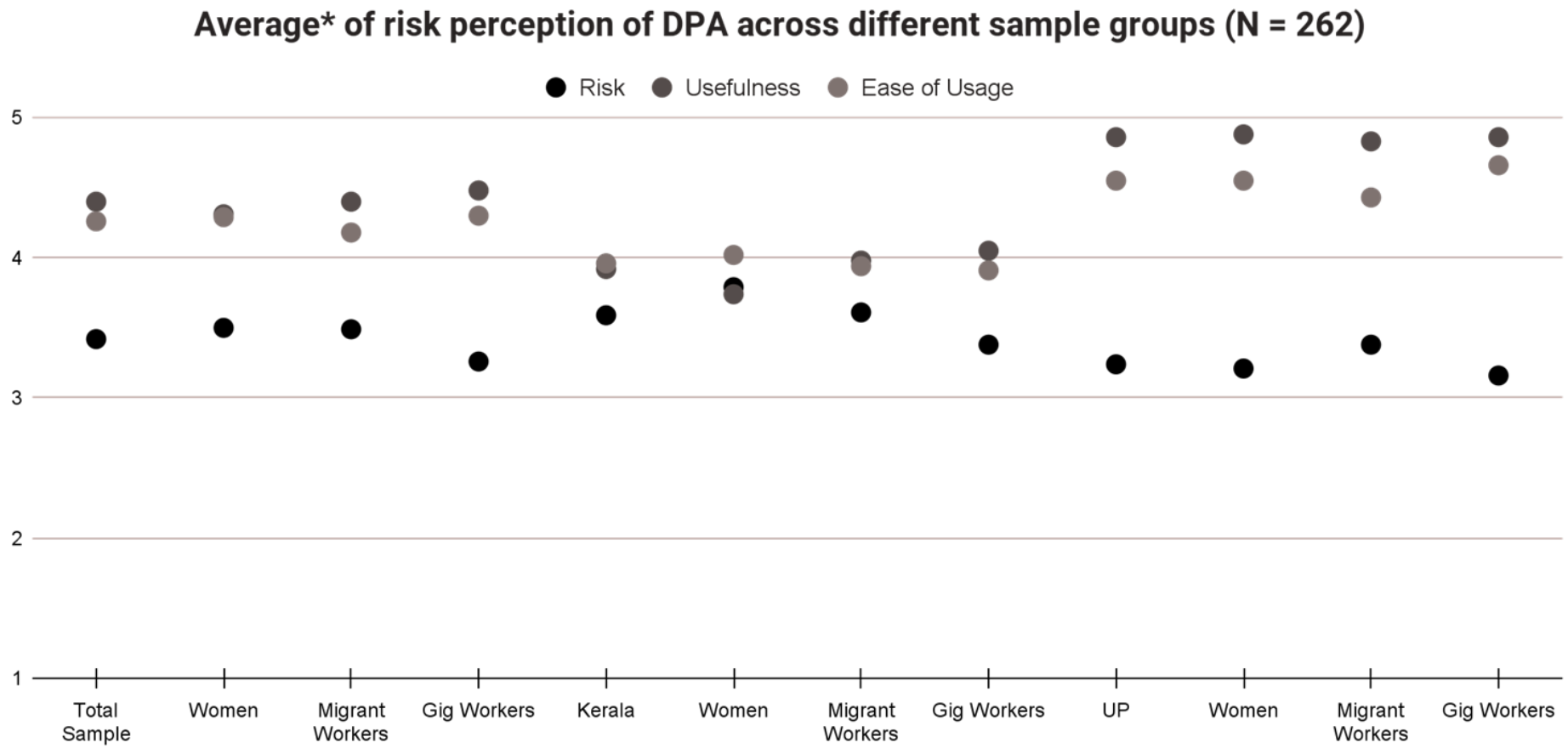
- For women, higher frequency of DPA use was significantly associated with:
  - Lower age
  - Urban location
  - Women having greater say in household decisions
- For migrant workers, higher frequency of DPA use was significantly associated with:
  - More HH members
- For gig workers, higher frequency of DPA use was significantly associated with:
  - Being a digital gig worker (in comparison to a traditional gig worker)
  - More HH members
  - Less per capita HH income
  - Less disposable income
  - Men having greater say in household decisions

13. Results on users' perceptions and behaviours

DVARA Research

13.1. Perceptions: Risk, usefulness and ease of usage

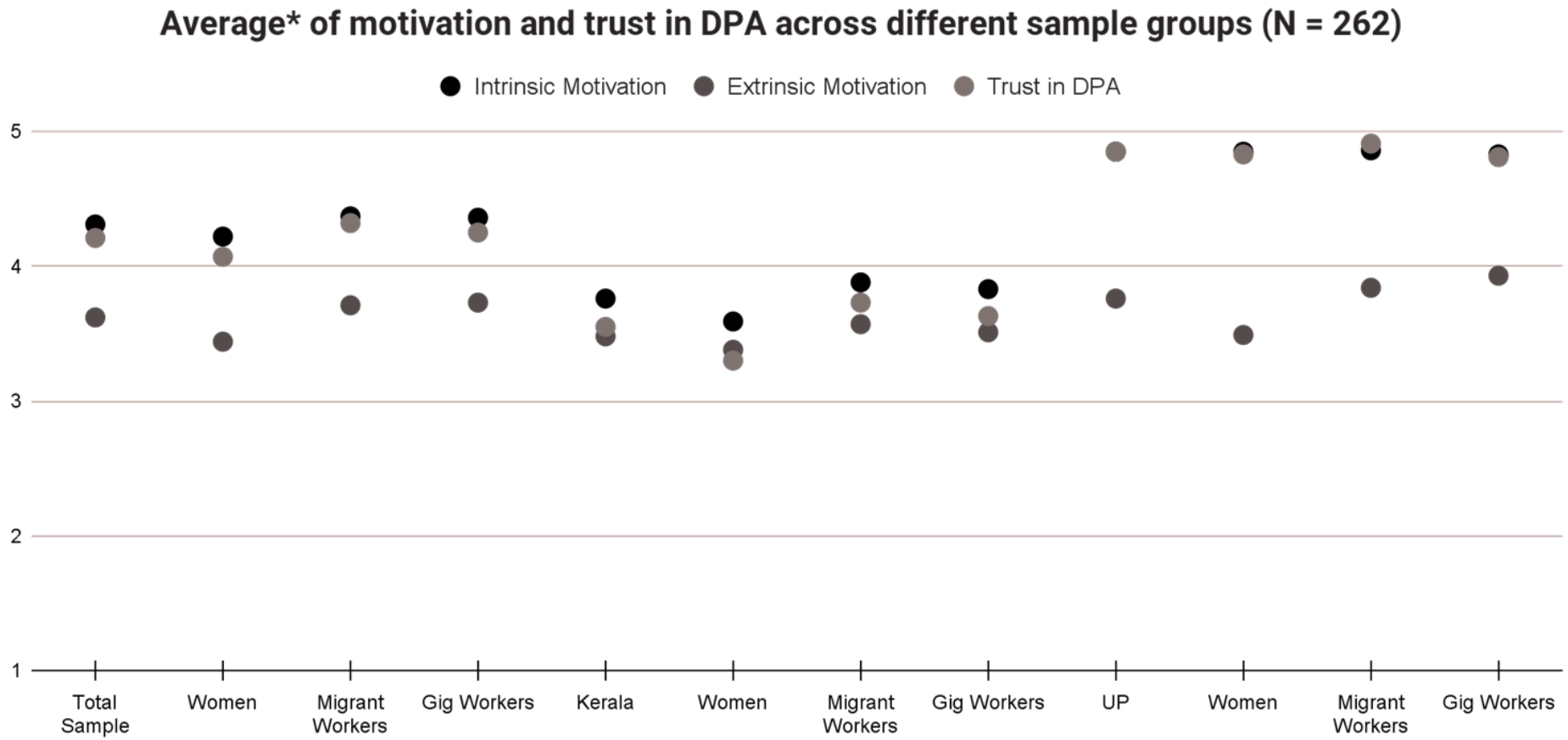
(Completely disagree = 1; completely agree = 5)



* For each risk perceptions, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more "completely agree" responses were given, compared to the others.

13.2. Motivations and trust

(Completely disagree = 1; completely agree = 5)

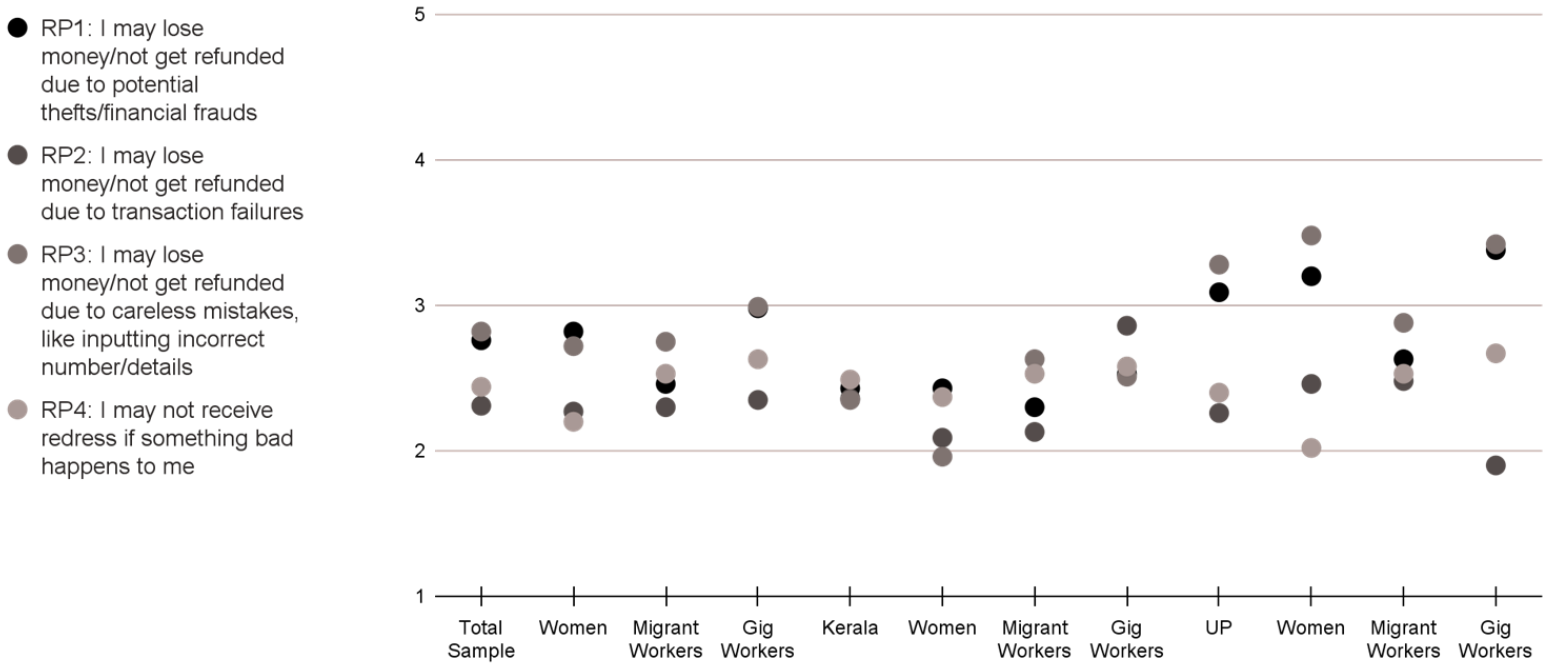


* For each intrinsic motivation question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more “completely agree” responses were given, compared to the others

13.3. Perceptions: Risks in using DPA

(Completely disagree = 1; completely agree = 5)

Average* of risk perception questions across different sample groups (N = 262)



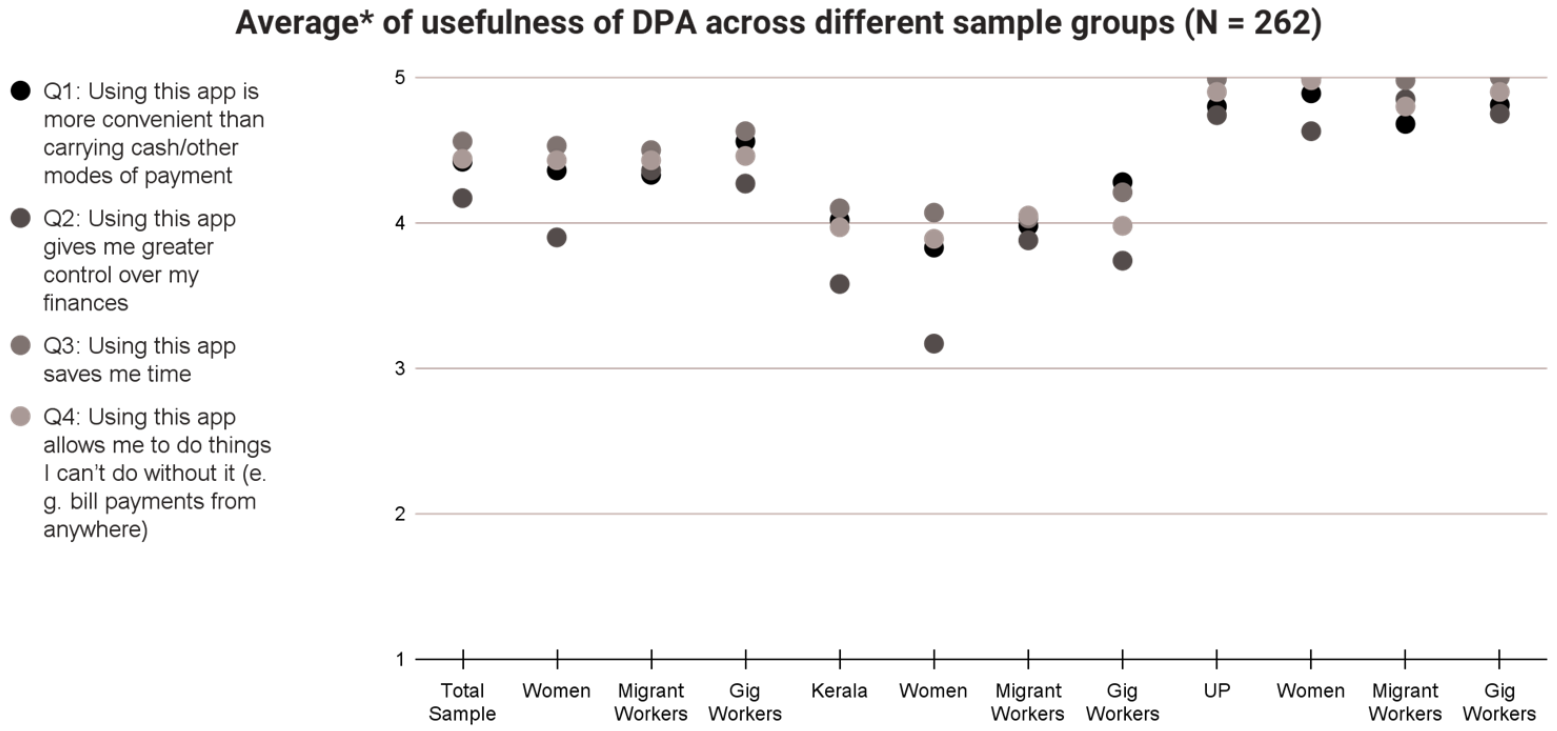
Findings

- Risk perception is generally low in this sample
- Perceptions of risk associated with financial fraud and losing money due to careless mistakes is higher in UP than in Kerala
- Women in UP believe that they will receive redressal if something bad happens (RP4)
- Gig workers in UP perceive less risk in losing money to transaction failures than women and migrant workers

* For each risk perception question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more "completely agree" responses were given, compared to the others

13.4. Perceptions: Usefulness of DPA

(Completely disagree = 1; completely agree = 5)



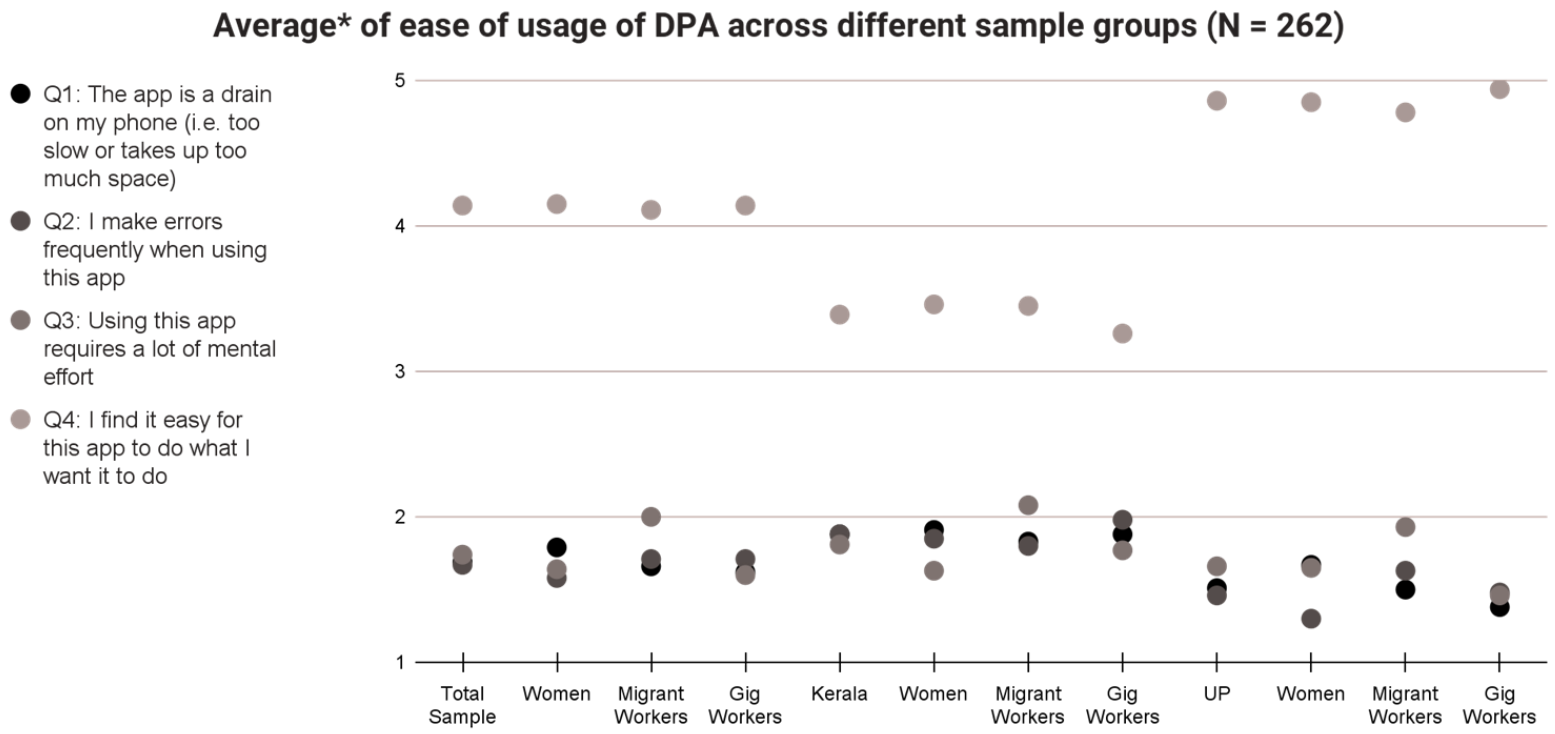
Findings

- Convenience, greater control over finances and saving time are the most listed perceptions of usefulness
- Women in Kerala agree less with the perception that DPA allows you to have greater control over your finances

* For each usefulness of DPA question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more "completely agree" responses were given, compared to the others

13.5. Perceptions: Ease of usage

(Completely disagree = 1; completely agree = 5)



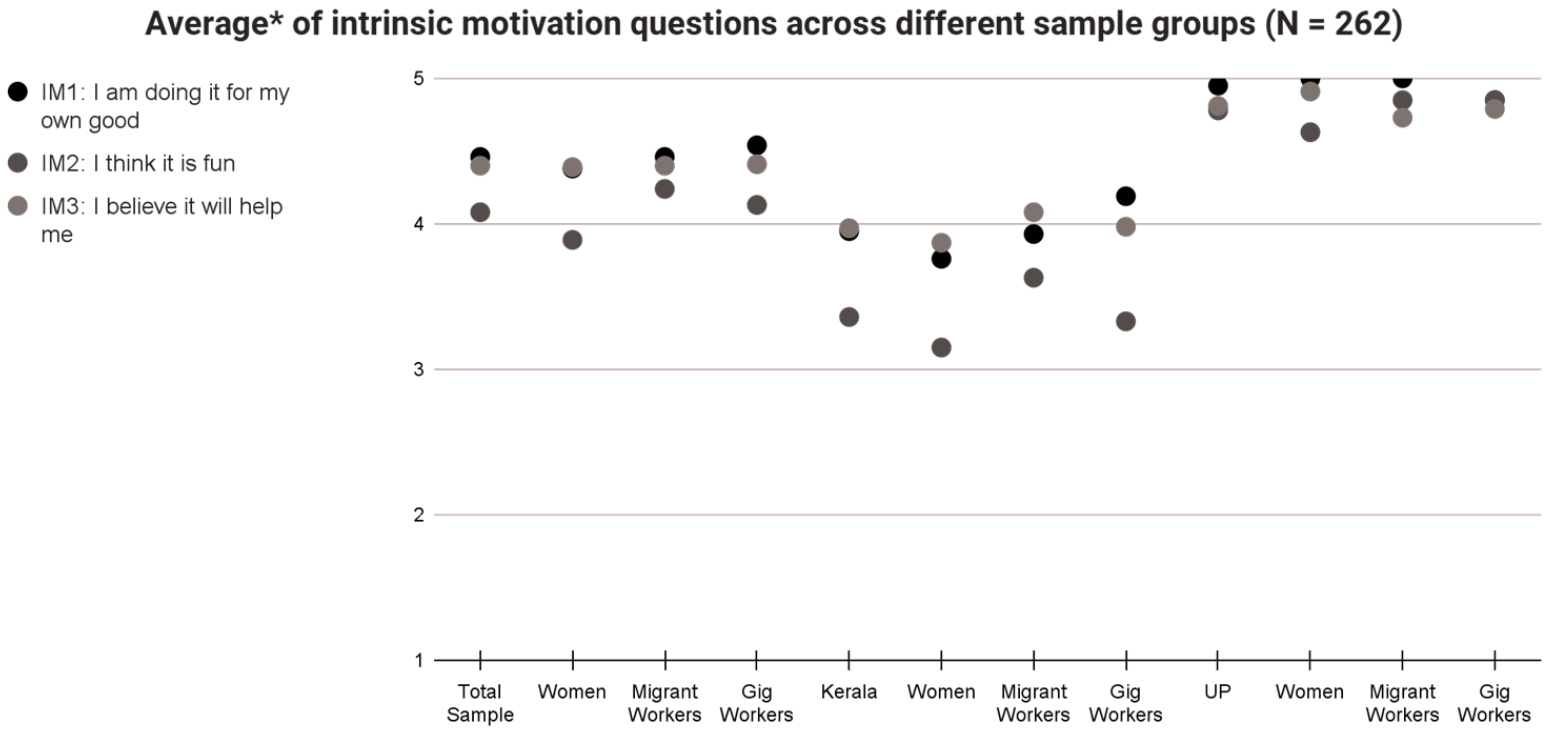
Findings

- Overall, the respondents believe that DPA is easy to use (Q4)
  - This is especially high for all respondent groups in UP

* For each ease of usage of DPA question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more “completely agree” responses were given, compared to the others

13.6. Behaviour: Intrinsic motivation

(Completely disagree = 1; completely agree = 5)



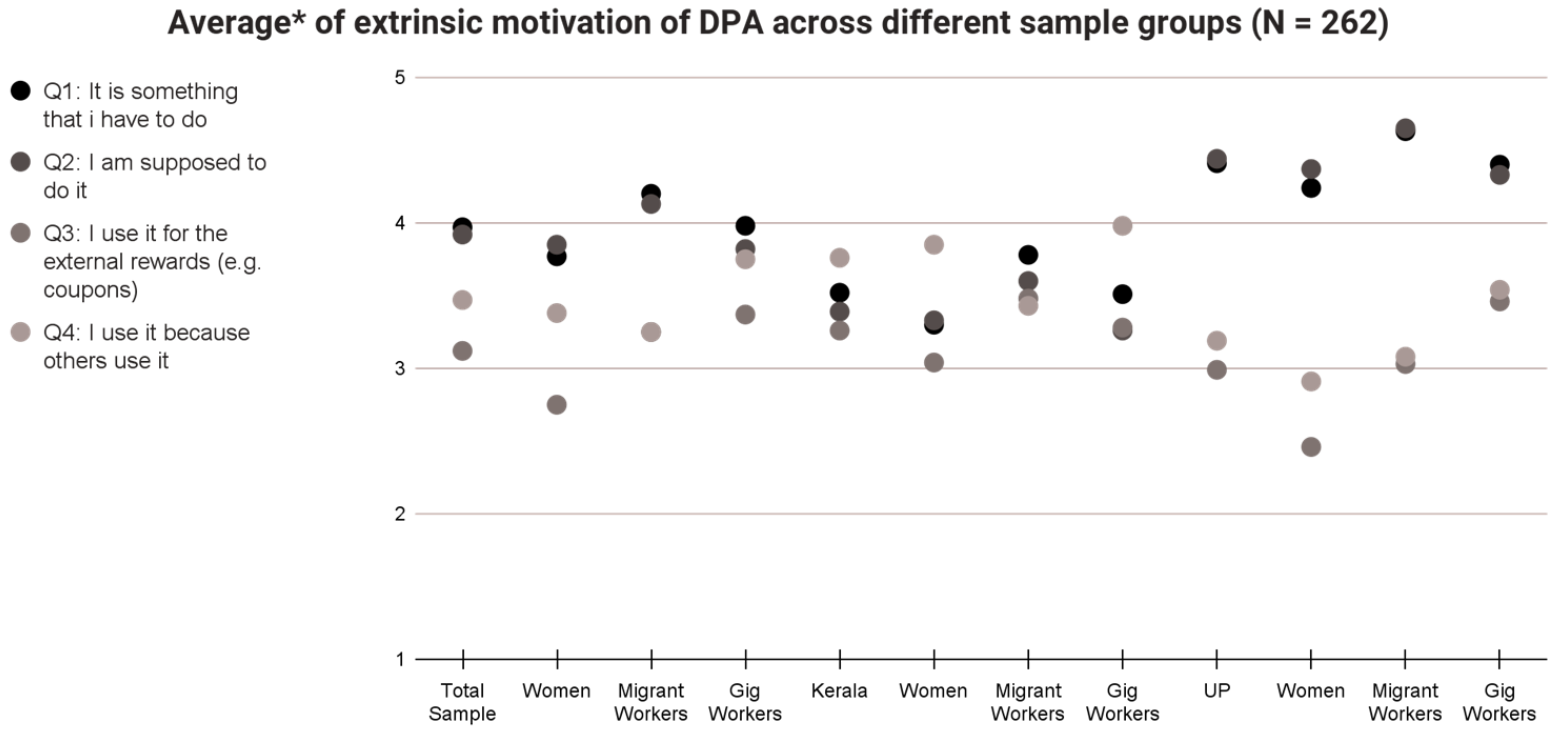
Findings

- Overall, intrinsic motivation to use DPA is high in the sample
  - This is true across respondent groups
- UP has consistently high scores for all questions and groups
- In Kerala, migrant workers are slightly more likely to rate DPA usage as "fun"
  - This is consistent with the findings on our reasons for most preferred app question, where we found that migrant workers cared more about how fun to use the app is

* For each intrinsic motivation question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more "completely agree" responses were given, compared to the others

13.7. Behaviour: Extrinsic motivation

(Completely disagree = 1; completely agree = 5)



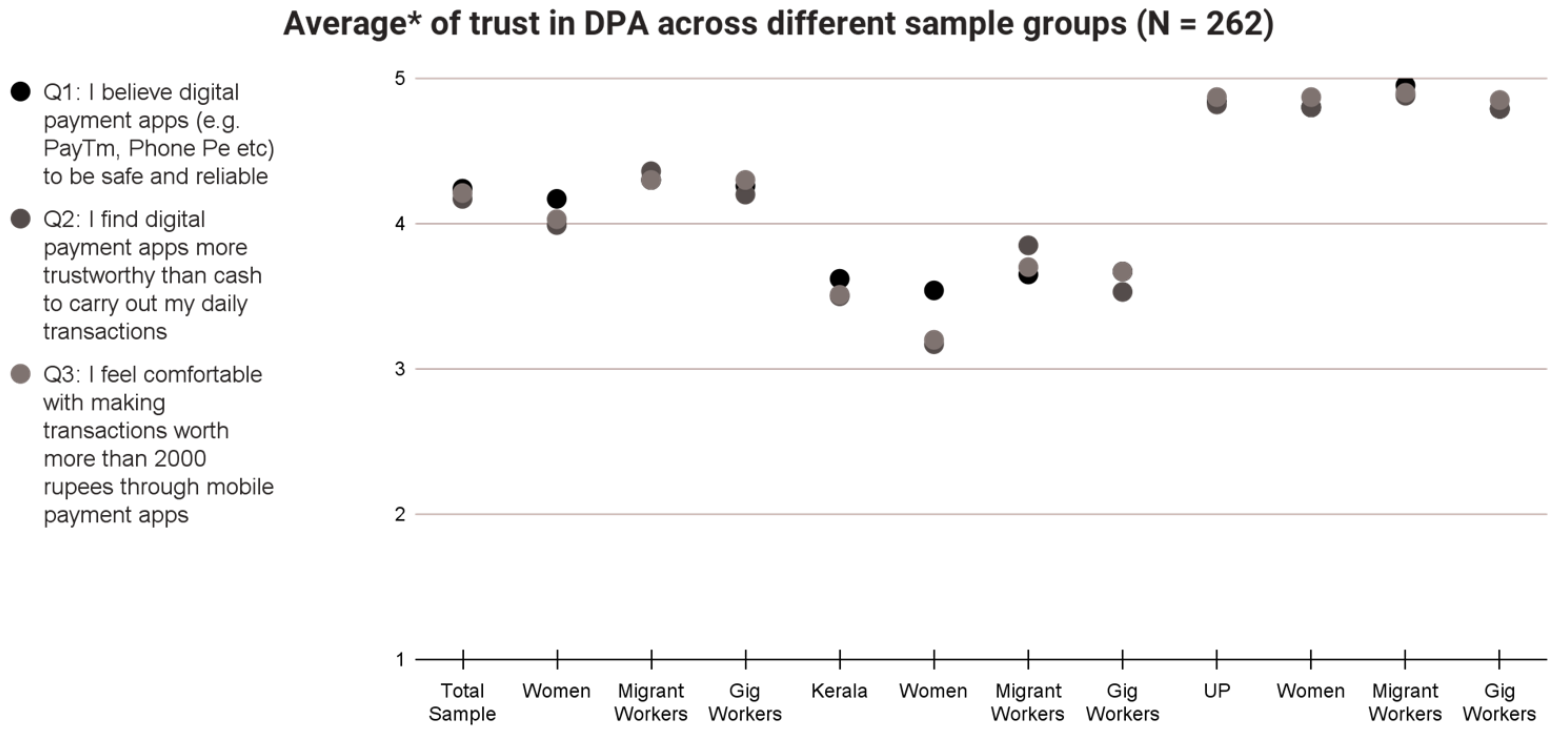
Findings

- For the total sample, women are less likely to use DPA for external rewards, while gig workers are most likely to use it for external rewards
- Respondents from UP are more likely to agree with the fact that using DPA is something that they have to do and are supposed to do

* For each extrinsic question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more "completely agree" responses were given, compared to the others

13.8. Behaviour: Trust in the DPA

(Completely disagree = 1; completely agree = 5)



Findings

- Trust in DPA is high in this sample
  - This is especially high for respondents from UP from all groups
  - Trust in Kerala is lower than UP
  - Women in Kerala seem to have less trust in relation to question 2 and 3

* For each trust in the DPA question, average is calculated based on the scale (1-5). An average of 4.5 on the scale of 5 means more “completely agree” responses were given, compared to the others

Understanding new-to-UPI users' experiences with UPI-based digital payment apps

Findings from a quantitative survey of 262 respondents from Kerala and Uttar Pradesh

DVARA Research

*Dvara Research commissioned the study to the Centre for Social and Behavioural Change, Ashoka University.

** The study was conducted under a donation received by Dvara Research from WhatsApp Pay.

*** The study was conducted between July and August 2022.