



## Centering Trust in Product Design:

Pathways to Involve Community  
Mediators to Gain and Keep Trust  
of Low-resource Women Users  
on Digital Public Infrastructure

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**PROJECT NAME**

At margins of the digital economy: Women and Mediated Usage of Digital and Platform Services

For women who work informally, how best can new forms of digital public infrastructure meet their needs as users of apps and interfaces and digital services? How can we incorporate women’s patterns of seeking help to build more trust in DPIS? What intermediaries are present in women’s lives and how do these mediators enable and facilitate the trustful use of smartphones and the internet?

We bring quantitative evidence, and years of experience working with women’s worker associations to question how their mediation shapes their access, use, and interest in smartphones and platform services for their livelihoods.

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This brief contains design pathways that will deliver on a shared digital future which aims to incorporate community and shared access as a key facet of technology creation. It responds specifically to the question:

Is digital public infrastructure ready to be responsive to the needs of low-resource women users to better women’s earnings and livelihoods? What can the role of women’s associations and worker collectives be in the ecosystems built around digital public infrastructure in livelihoods and skilling?

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## Trust Deficit: Consumer-facing digital platforms and Women Users

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Current gaps in platform design are assumed based on product or service providers that build or maintain large consumer facing platforms that have a corporate platform design background and experience. Currently many corporate platforms in the B2C market and product tech industry are still trying to embed user-centricity in Human Computer Interaction (HCI) context and usability of digital products for the larger demographic of Indian users. Many Indian consumers face issues in usability, navigation and continued usage of digital products or services through evidence found on App ratings, feedback, help and customer care reviews.

Poor user experience often leads to trust deficit between consumers and digital platforms providing services which also impacts platform losing customers for business.

***This trust deficit, lower adoption and dropouts from digital platforms is higher amongst constrained users with lower digital proficiency and agency.***

Constrained users are low-income households across regions in India that demonstrate lower digital proficiency with digital products or platforms. Figure 1-4 indicate the age, income range, language ability, and agency in decision making and mobility, all factors that influence how women users can successfully use smartphones for their livelihoods.

UPI is a good example of platform design among DPIs that have reached significant scale but still has limitations and constraints in usability such as payment transactions and [in-app Grievance Redressal Mechanism \(GRM\)](#) for constrained users with low income and digital proficiency background. Access, adoption and continued usage amongst women across India is lower than men and much lower among women as constrained users.

Our Evidence? See figures 5, 6, 7, and 8 to understand the nature of constrained usage: women share their devices with family members when they own them (more than male members), share time spent on the devices and we find a gap between women’s familiarity with basic phone features and their usage of them. Women on platforms like UPI, lack agency to access and build digital proficiency which leads to further gap in accessing other digital platforms and products in future. We recognise that socio-demographic constraints [impact lower digital proficiency](#) amongst larger demographics in India. We can design platforms that are user-centric to Indians with lower proficiency.

## Successful DPI for Livelihoods must design to increase women's trust, confidence and proficiency in digital services

The main objective of DPIs is to enable equitable access and choice of digital goods or services across digital platforms for end consumers beyond their socio-economic and geographical constraints. The challenge remains that if consumer platforms are continued to be designed without benchmarking Indian users' digital needs, constraints and proficiency then the goal of equitable access or usage will be unmet. This will also impact the success of service providers under DPI who would want a larger Indian consumer base to adopt and continue using their consumer facing platforms.

Envisioning a DPI in the livelihood sector as an interoperable decentralised network model enabling collaborations between livelihood-demand-seeking consumers and supply of livelihood services (opportunities) may be too simplistic to implement.

The organised employment and formal sector are much smaller in comparison to informal and unorganised sectors that employ millions of Indians across the livelihood landscape. It is largely complex, diverse, heterogeneous and fragmented. Informal livelihood sector with its complexity coupled with women with constrained socio-economic and digital proficiency background as target consumers will require a differentiated approach from a demand-supply or decentralised network model.

We will need to fundamentally address three broad areas:

1. Bridge the trust deficit of sharing personal identity details.
2. Lack of agency leading to inequitable access to opportunities.
3. Low digital confidence and proficiency leading to low adoption and usage of digital platforms.

The following sections will lay out an approach to how we can address the above challenges for effective platform design in the DPI context of livelihoods for women.

***To enable a consumer facing platform in the DPI ecosystem towards successful adoption and positive outcomes for women users in the livelihood context, we stress on the importance of intentional platform design.***

This will contextually orient and align stakeholders across the DPI network towards its intended outcomes for end consumers. The recommended approach argues about the user-centricity placing women as primary users, centred with a gender lens and accommodating community mediation embedded in the user journey of platform design. Placing user centricity as an overarching approach to platform design will guide and align platform developers with stakeholders for effective user experience. User centricity here also throws a spotlight on gender lens to intentional design and development of the platform setting it up for adoption success. Our recommended approach to platform design will be incomplete if we don't accommodate community mediation embedded across the user journey on the platform with clear entry and exit points for mediators. We suggest in the last section of the brief, establishing guiding principles for community mediation aimed at maintaining balance of community mediation with women as primary users of the platform.



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## Gender-Intentional Platform Design: Three recommendations

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These three recommended areas of approach to intentional platform design can address the fundamental challenges mentioned previously and enable platform and DPI success amongst end consumers.

### 1. Introducing & Embedding User Centricity

User-centricity or user-centric design has been widely recognised and incorporated in the context of digital policy framing across major economies of the world. However, the application of user centricity across digital products and platforms globally have been poor or inconsistent, or both. The applicability also widely varies across global and localised digital platforms developed in the global north in comparison to the global south. In India, we have yet to witness the application of user-centricity for larger digital platforms and DPIs. Considering the target user needs and gaps in platform usage, introducing user-centricity as a mind-set and operational applicability is critical for intentional platform designs. This needs to be laid out as an overarching approach to how intentional platforms should be designed. User centricity in the context of women users in the livelihood sector should consider designing for women with constrained socio-economic and digital proficiency background as a usage denominator.

*This target group of women users are not considered as “solo-users” but as primary users accessing and leveraging the platform.*

Figure 12 indicates how women use social media, UPI and banking, for internet search and maintaining safety on the internet with and without help. It would translate into designing the platform around the needs and goals of the primary user including the scope of mediation. This shift in approach can be then translated to embedding user-centricity early on at conceptual or ideation stage of platform design and development. This will require relevant and skilled professionals in the user experience domain to collaborate across platform development teams for consistent application of user-centric design.

### 2. Center Gender for Intentional Platform Design

Women’s journey of building agency and digital proficiency is not simple and is starkly different from men’s digital proficiency journey in Indian context. Introducing gender intentional platform design in the context of the livelihood sector and target constrained women users would align with user-centric principles for better platform adoption. An example of successful gender intentional platform designs was Meesho platform operating as a social commerce model from 2018 - 2021 focused on women resellers in the gig economy as primary users (Meesho has pivoted since 2021 to gender neutral users operating as ecommerce models like Amazon, Flipkart). The social commerce model enabled women gaining digital confidence and proficiency on the platform by continuously improving their user experience.

*The platform also found evidence of mediators to enable women user’s proficiency on the platform and accommodated mediation as part of platform design. By bringing a gender lens as an intentional design approach will seamlessly integrate the needs and constraints of women users on the platform journey.*



It is designed around a woman user's journey that accommodates for mediation and consistently gives the primary control to women in usage of the platform.

### **3. Accommodating Community Mediation**

Institutional or community mediation in our research provides evidence on how community or institutions bridge trust deficits amongst constrained women users in new or unfamiliar livelihood environments. Figure 13, 14, and 15 indicate who women trust in moments of doubt, failure and grievances for accessing government services, livelihood issues, and digital services. They mediate with the woman's household to build her agency to access livelihood opportunities and create learning spaces for women to access and gain digital proficiency safely. We need to accommodate community mediation in consumer-facing platform design and introduce such "mediator" organisations and experts within the DPI network for effective facilitation.

***Community mediation, if strategically introduced in the livelihood sector and for women focused consumers, can play a critical role to enable facilitation for platform design and DPI network.***

It could also enter from the supply side offering more customisable, contextualised services raising the bar of equitable access as a service provider in the network.



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## Guiding Principles for Effective DPIs: Partnership for Community Mediation

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### **Adoption of DPIs requires partnerships with community experts**

Adoption of digital platforms in the DPI network especially in the context of target women users in this study would be based on not just onboarding these users but also their continuous usage of the platform. The mentioned criteria is to achieve the required early milestones pre-determined to measure adoption success of the platform.

*Our studies establish that community mediators or experts can be effective partners of the platform and support women users through the platform journey in building digital proficiency and confidence.*

Figures 14 and 15 home in on the fact that women have long-term associations and trust in community mediators in their lives. The mediator and the woman user journey mapped across milestones in offline context and in online platform context can form effective partnership in specific areas of support. Milestones such as building awareness, platform onboarding, activation and retention can be achieved in partnership with mediators. This will not only ensure successful adoption of DPIs and its platforms but also gives the platform an additional channel of feedback and support in improving user-centricity.

Community mediation needs to be based on guiding principles that give strategic and operational direction for effective partnership with the platform developers. We recommend three broad principles to build and maintain community partnership in context to women users for a livelihood platform design.

#### **1. Community mediation can ensure checks and balance around equity**

Institutional or community mediators will play a critical role to balance corporate maintenance and platform sustainability goals with social goals for a women-centric platform design. The mediators can contextualise socio-cultural backgrounds and agency of women in context of digital usage with platforms. They can ensure checks and balance with equity through continuous feedback and support for platform development and maintenance.

*They will contextualise usage of the platform for relevant outcomes or target milestones avoiding friction, frustration or digital failure for women users. This approach would translate to features and product development that allows target users to access and leverage the platform equitably over a longer period of time.*

Stakeholders building the platform need a shift in product mindset where women's constraints and motivation to use digital platforms is deeply embedded in how features and platforms are designed end-to-end. Community mediation can provide this mindset and development support to platform developers.



## 2. Community mediation to co-steer productization

Productisation of a platform is often considered the main task for platform developers but in this context of DPIs for women users, it will need to be a collaborative or co-creation approach with community mediators.

*It is a two-way process for institutional mediators and platform developers to have a shared learning approach towards productisation of digital platforms in context of womens' livelihood needs and usage.*

Both parties will need to align on a common feature and platform development process that makes the collaboration more efficient and frictionless. The institutional or community mediators will have to build capability and contribute with a “product-tech” mindset towards feature development that is scalable and sustainable to maintain platforms. The platform developers and maintainers will have to successfully contextualise and integrate women’s needs, usage and constraints while maintaining product constraints.

## 3. Community mediation will require guardrails

Various gender studies and our findings commonly share women’s apprehension, lack of agency and vulnerability that has led to gender gap in access and usage of digital product and platform usage. Such studies have also shown the success and further potential for women when they feel safe and confident in using and leveraging digital platforms. Our research has built evidence on how women users do rely on community mediation to successfully access, use or leverage digital platforms safely, especially when they lack agency or support in their household. Our research also throws a cautionary approach to dependence of community mediation for platform success. We recommend that the end goal of community mediation should be to build target user’s capability to use the platform independently and there should be an exit strategy for community mediation. Hence, digital platforms and DPI stakeholders need to put in place guardrails for community mediation to maintain control by women users across platform stages and user journey.



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## Conclusion

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Current consumer facing platform designs have not been able to bridge the trust deficit with women users especially with constrained backgrounds. This trust deficit continues to reduce accessibility of platforms and lower digital confidence of women users from sharing personal identity details to exploring and using a digital platform for their needs and goals. The approach to such challenges are nuanced yet solvable at scale in the DPI context. We hope that DPIs in livelihood context can bring community experts and mediation with the goal of improving adoption of digital platforms and increasing engagement by women users across socio-economic backgrounds and digital proficiency in India. The goal can be met if we bring user-centricity for gender intentional platform design where women can move from constrained to effective users of digital platforms in India.



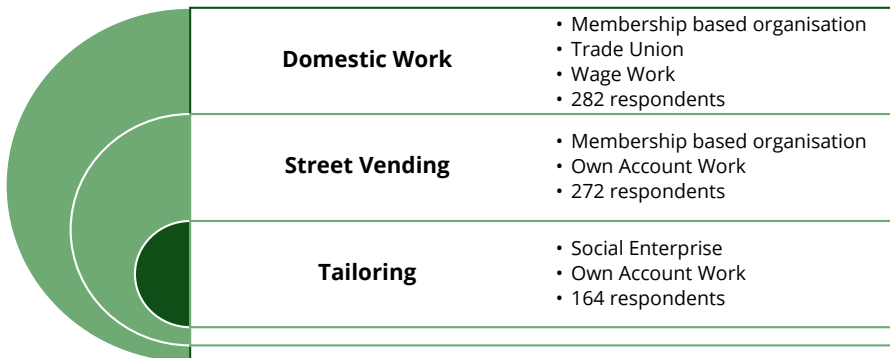




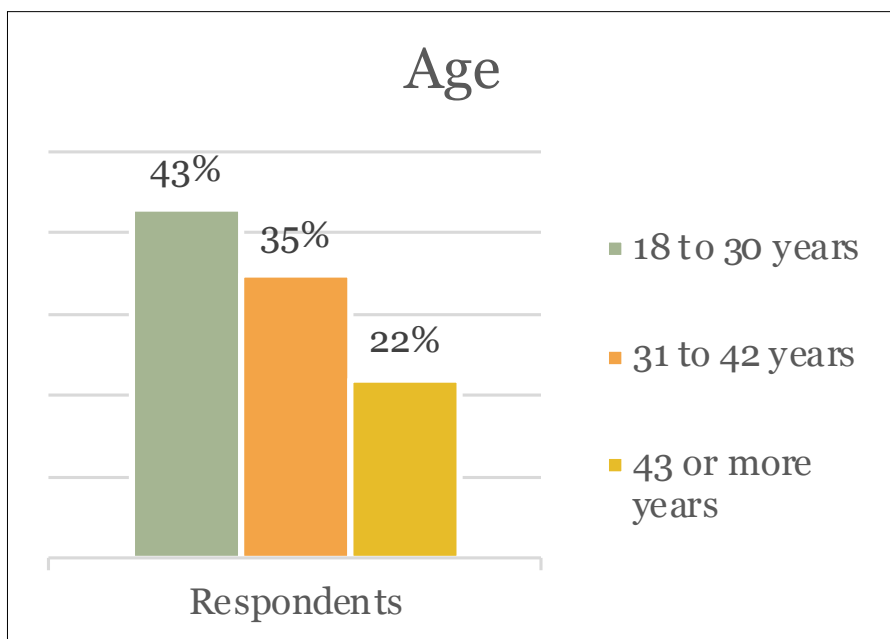


# Evidence from Women Users

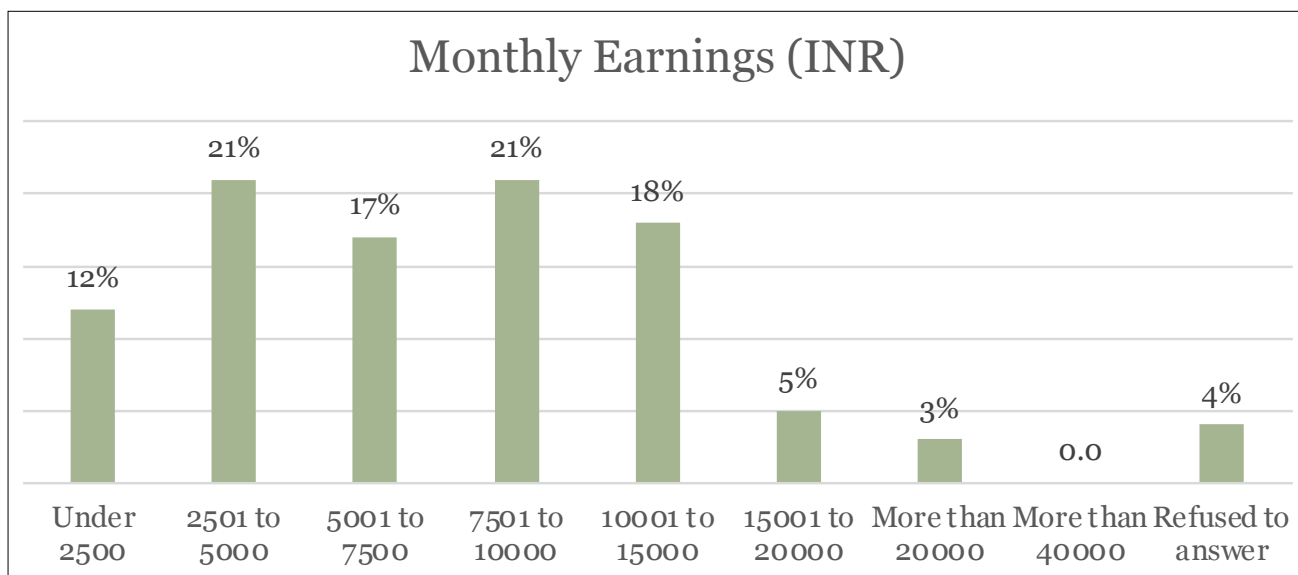




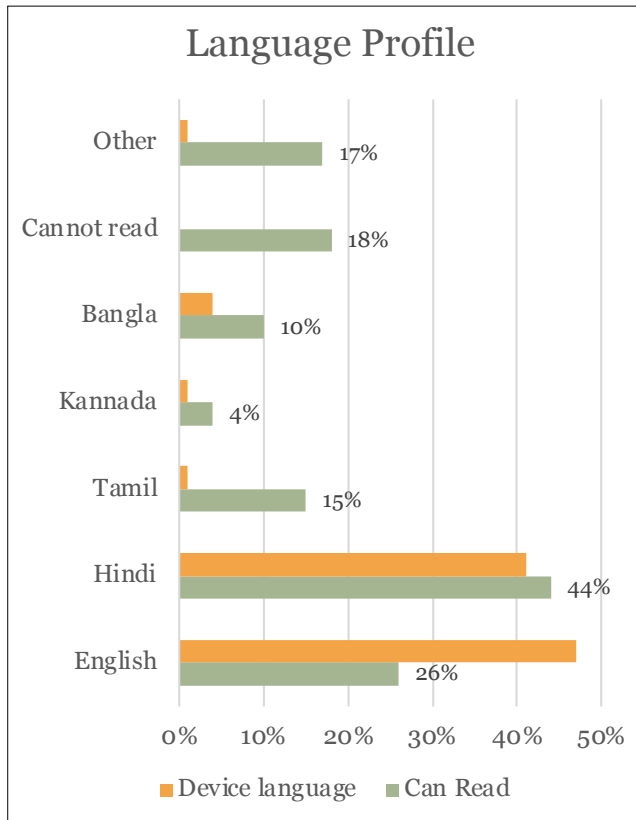
**Figure 0:** Women Users Sampled in Study



**Figure 1:** Age Range of Women Users in the study



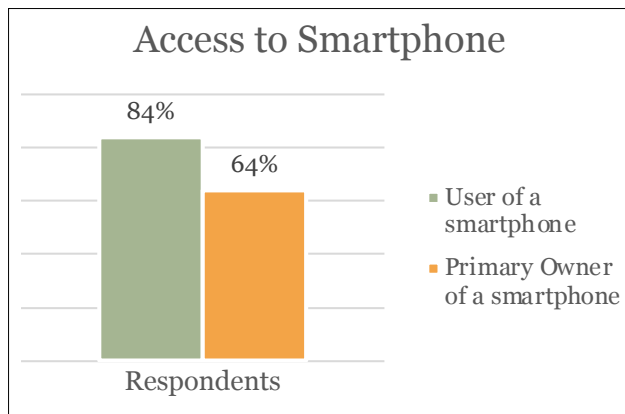
**Figure 2:** Women's Incomes in the study



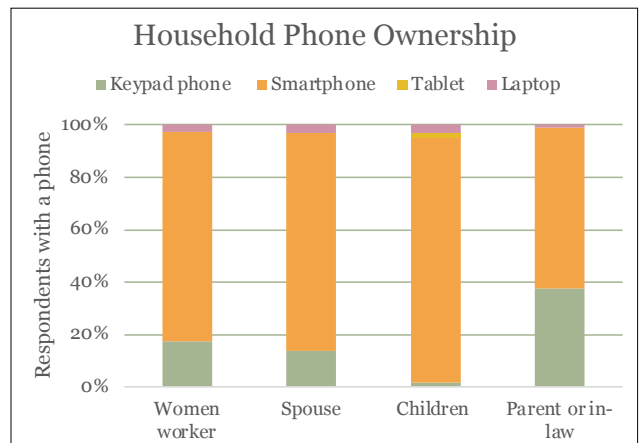
**Figure 3:** There is a disconnect in the languages women speak and the languages of the devices they use

Understanding Agency	Respondents
Can visit at least two sites alone if she decides to (market, bank, health facility, neighborhood)	<b>88.4%</b>
Participates in the decision on how to spend her earnings	<b>80.7%</b>
Decides how to spend earnings alone	<b>54.0%</b>
Can visit bank, healthcare, market, and neighborhood alone if she decides to	<b>46.7%</b>
Participates in at least three household decisions	<b>43.7%</b>

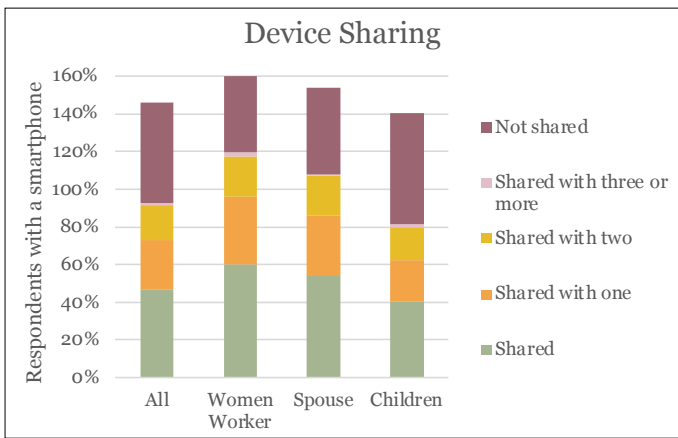
**Figure 4:** Women have a say in their mobility, earnings and decisions made in their households but are not the only decision-makers



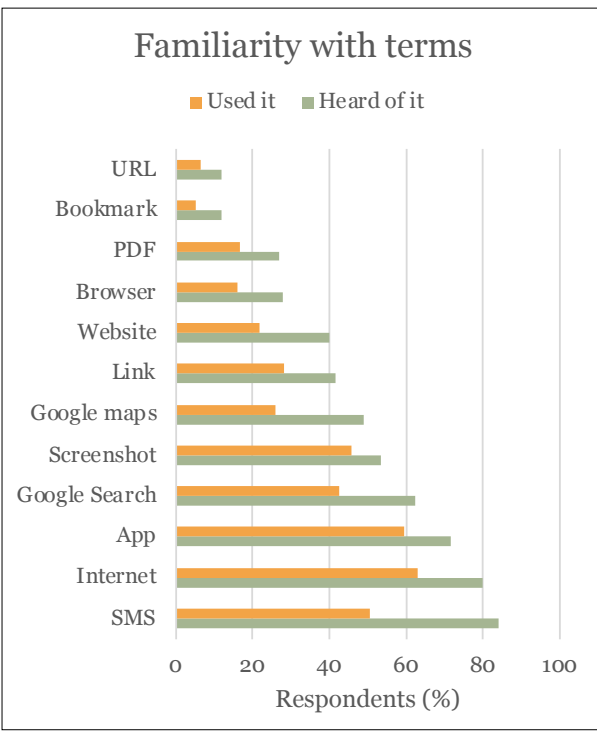
**Figure 5:** Women own and use devices that are shared across the household shaping the time they have with phones and the services they use



**Figure 6:** Both adult men and women are more likely to own a smartphone today than a regular phone



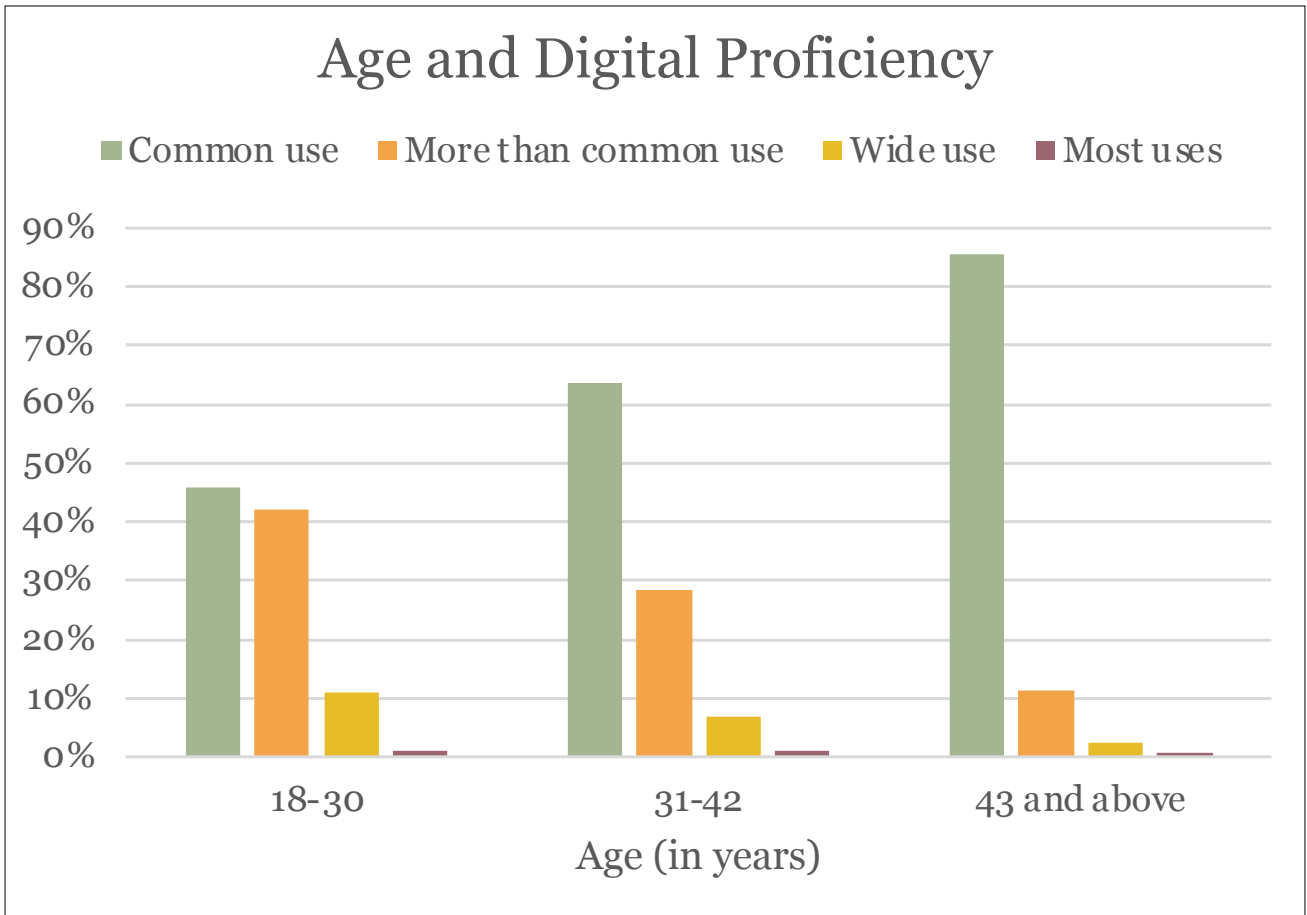
**Figure 7:** Women share their phones with household members more than adult male counterparts



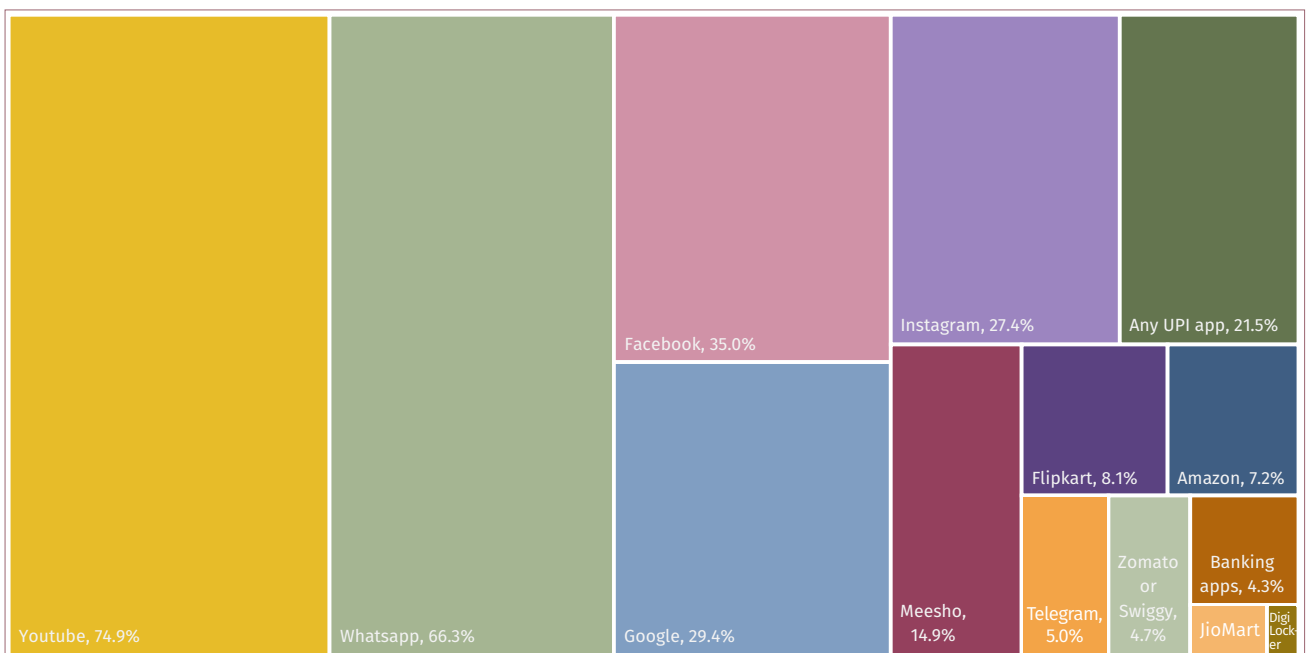
**Figure 8:** There is a gap between women’s familiarity of phone features than usage; they display greater familiarity with smartphone features than personal computers

Usage	All
Entertainment	75%
Personal communication - text message	34%
Personal communication - voice message	39%
Personal communication - audio call	77%
Personal communication - video call	56%
Personal communication - share/send images and videos	37%
Non-personal communication - text message	13%
Non-personal communication - voice message	14%
Non-personal communication - audio call	31%
Non-personal communication - share images & videos	8%
Non-personal communication - advertise online	3%
Learning	41%
Shopping - Personal	15%
Shopping - Household	16%
Payments - Send	15%
Payments - Receive and verify	12%
Accessing government services	4%
Other	5%

**Figure 9:** Women are more likely to be using smartphones for personal communication and entertainment. Smartphones are used for communicating with clients and suppliers, and for learning in the context of work and livelihoods



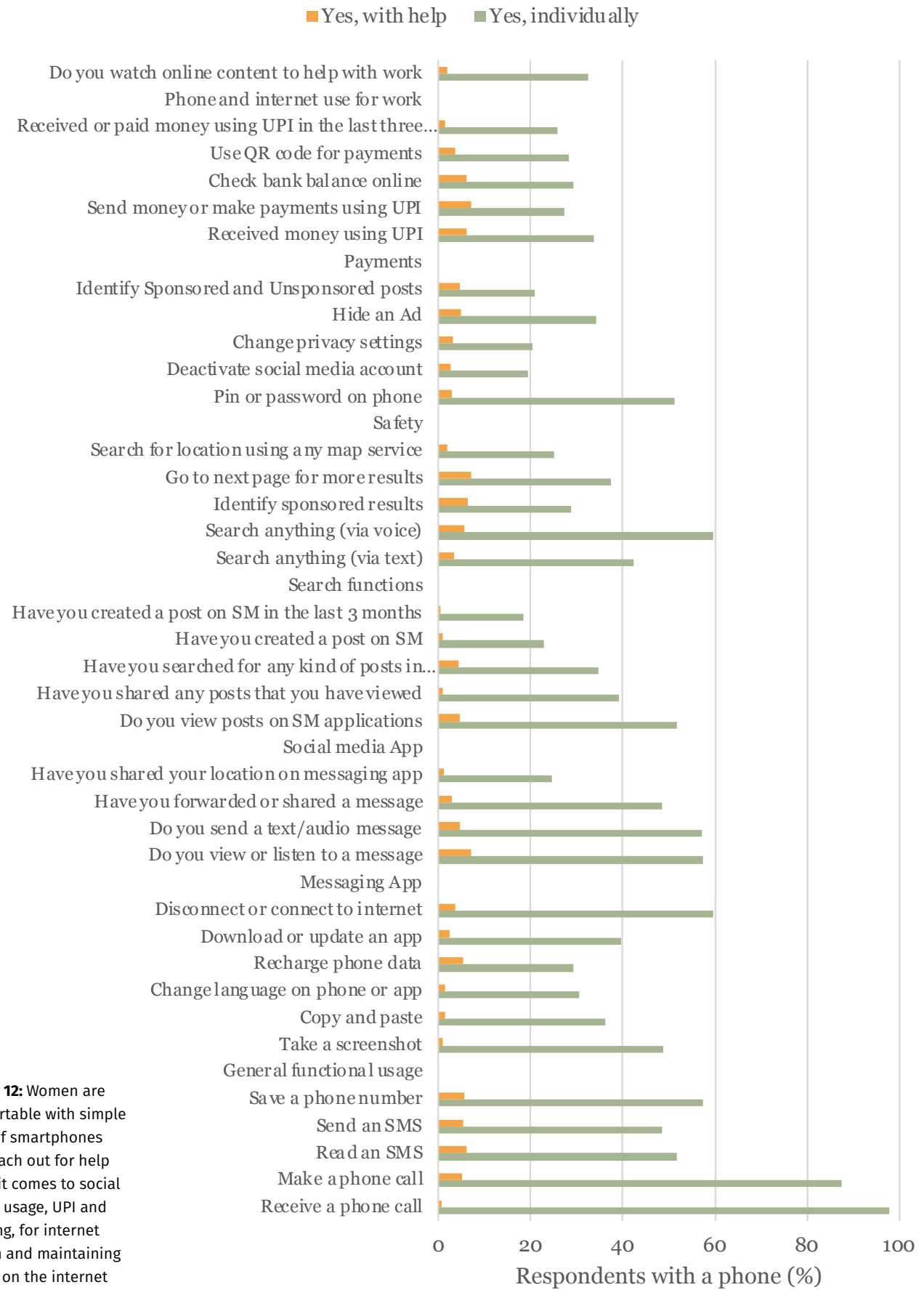
**Figure 10:** Age plays a role in complex uses of smartphones for women



**Figure 11:** Women's use of commercial platforms



# Active and Mediated Use of Smartphones



**Figure 12:** Women are comfortable with simple uses of smartphones but reach out for help when it comes to social media usage, UPI and banking, for internet search and maintaining safety on the internet

Purpose	Family (Immediate and other)	Friends	Others in the neighbourhood	Union	LabourNet
<i>Offline services</i>					
Aadhar	39.28%	1.40%	0.12%	7.69%	0.35%
E-shram	22.50%	2.84%	0.22%	45.63%	0.88%
Jan Aadhar	34.13%	1.59%	0.40%	28.18%	0.00%
Health Insurance	47.77%	5.81%	0.45%	14.28%	2.24%
Pension	30.00%	8.00%	0.00%	26.00%	0.00%
Svanidhi	14.28%	4.08%	2.04%	46.94%	0.00%
Vishwakarma	46.88%	3.13%	0.00%	0.00%	25.00%
Find work	39.44%	29.82%	2.37%	8.49%	5.97%
Payment grievance	38.50%	8.88%	0.38%	24.93%	2.48%
Employer/Supplier grievance	36.03%	5.81%	0.38%	23.54%	3.06%
Pregnancy and childbirth	73.16%	5.53%	0.27%	2.08%	0.63%
School admissions	60.87%	5.59%	0.12%	1.07%	0.12%
Children's employment	24.55%	13.47%	0.80%	2.17%	0.57%
Domestic violence	32.41%	10.42%	0.67%	23.81%	0.20%
<i>Banking and UPI</i>					
Linking bank with UPI	71.36%	5.17%	0.47%	0.94%	0.47%
Received money via UPI	91.83%	8.16%	0.00%	0.00%	0.00%
Sent money via UPI	78.69%	6.56%	0.00%	0.00%	0.00%
Check balance in bank via UPI	75.47%	1.89%	0.00%	0.00%	0.00%
Use QR code for payments	96.55%	3.45%	0.00%	0.00%	0.00%
Used UPI in last three months	90.91%	9.09%	0.00%	0.00%	0.00%
Opening a bank account	55.19%	7.42%	0.74%	8.46%	0.90%
Using a bank account	74.92%	4.31%	0.96%	2.08%	0.16%
Support with finding a loan	60.63%	7.34%	0.44%	6.68%	0.77%
Financial planning	79.03%	1.85%	0.12%	3.24%	0.12%
Planning to build/ buy a house	75.55%	3.07%	0.22%	1.97%	0.22%
Financial fraud	42.57%	2.60%	0.20%	17.63%	0.40%
Micro-credit committees	41.30%	8.08%	0.11%	14.90%	0.57%
<i>Basic functionalities</i>					
Receive calls	100.00%	0.00%	0.00%	0.00%	0.00%
Dial calls	80.65%	16.13%	1.61%	0.00%	1.61%
Read SMS	93.94%	6.07%	0.00%	0.00%	0.00%
Send SMS	96.67%	3.34%	0.00%	0.00%	0.00%
Save contact	90.48%	6.34%	0.00%	0.00%	0.00%
Language settings	100.00%	0.00%	0.00%	0.00%	0.00%
Mobile plan recharge	80.85%	4.26%	0.00%	0.00%	0.00%
Connect or disconnect to a Wifi	97.29%	2.70%	0.00%	0.00%	0.00%
Screenshot	80.01%	6.67%	0.00%	0.00%	0.00%
Copy-paste functionality	93.33%	6.67%	0.00%	0.00%	0.00%
Downloading an App	87.49%	12.50%	0.00%	0.00%	0.00%
<i>Messaging Apps and Social Media Apps</i>					
View content on messaging app	97.11%	2.90%	0.00%	0.00%	0.00%
Send content on messaging app	99.99%	0.00%	0.00%	0.00%	0.00%
Forward content on messaging app	93.76%	6.25%	0.00%	0.00%	0.00%
View posts on social media	92.86%	7.14%	0.00%	0.00%	0.00%
Share posts on social media	80.00%	20.00%	0.00%	0.00%	0.00%
Search on social media	90.70%	9.31%	0.00%	0.00%	0.00%
Create content on social media	88.88%	11.11%	0.00%	0.00%	0.00%
View content for livelihood	88.89%	5.56%	0.00%	0.00%	0.00%
Platform use 1	93.25%	4.51%	0.00%	0.00%	0.00%
Platform use 2	90.63%	6.25%	0.00%	0.00%	0.52%
Platform use 3	88.00%	7.20%	0.00%	0.00%	0.00%
<i>Search and privacy</i>					
Search via text	92.30%	7.69%	0.00%	0.00%	0.00%
Search via voice	94.55%	5.46%	0.00%	0.00%	0.00%
Search for a location on maps	93.33%	6.67%	0.00%	0.00%	0.00%
Use a password or pin on phone	92.00%	8.00%	0.00%	0.00%	0.00%
Deactivate account	90.92%	9.09%	0.00%	0.00%	0.00%
Change privacy settings	95.46%	4.55%	0.00%	0.00%	0.00%
<i>Public Services</i>					
Online bill payment	67.07%	4.57%	0.00%	0.48%	0.00%
Check application status	45.98%	0.55%	0.55%	15.51%	0.56%
Register grievance	53.12%	2.57%	0.00%	14.28%	0.00%
Information on welfare programs	42.37%	6.12%	0.44%	19.65%	0.44%
Using Digilocker	81.48%	0.00%	0.00%	0.00%	0.00%

Employer or Customer	Government and Government adjacent	Not applicable	None of the above
0.47%	48.02%	0.58%	1.28%
0.00%	26.64%	0.00%	0.66%
0.40%	34.93%	0.00%	0.00%
0.00%	21.42%	4.02%	1.79%
0.00%	34.00%	0.00%	0.00%
0.00%	29.59%	0.00%	0.00%
0.00%	12.51%	3.13%	9.38%
0.69%	1.84%	2.37%	1.45%
0.76%	3.44%	14.61%	3.44%
0.57%	9.54%	13.35%	6.01%
0.00%	6.35%	9.70%	1.36%
1.19%	10.46%	15.22%	4.28%
0.68%	3.65%	44.06%	4.91%
0.19%	10.04%	13.19%	4.30%
0.00%	8.45%	0.94%	9.86%
0.00%	0.00%	0.00%	0.00%
0.00%	14.75%	0.00%	0.00%
0.00%	22.64%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
1.19%	19.88%	1.04%	4.15%
0.32%	6.55%	3.19%	6.87%
0.56%	3.55%	12.79%	4.23%
0.12%	1.63%	8.11%	4.40%
0.00%	0.99%	14.04%	2.19%
0.50%	21.94%	10.92%	2.20%
0.00%	2.27%	19.57%	8.65%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
2.13%	12.77%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	5.56%	0.00%	0.00%
0.56%	0.28%	0.56%	0.28%
1.04%	0.00%	0.52%	0.00%
0.80%	3.20%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%
0.48%	22.60%	0.24%	3.61%
0.00%	31.58%	0.00%	5.26%
2.20%	23.82%	0.00%	3.66%
0.66%	24.02%	0.00%	4.80%
0.00%	3.70%	0.00%	14.81%

Figure 13: Women's patterns of seeking help

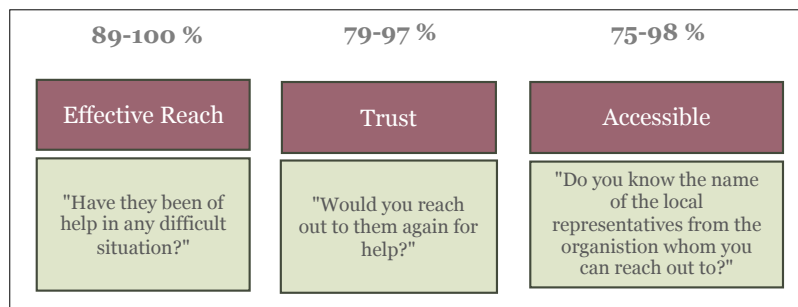


Figure 14: Women's patterns of seeking help

Key areas of support extended by worker-centric institutional mediator	All
Government ID	29%
Find work or business	26%
COVID Relief	22%
Banking	20%
Expand business/work	15%
Access to welfare programs	14%
Better price for work	12%
Employer related issues	4%
Intra-household issues	3%
Health issues	3%
Risk from police	2%
Digital learning	2%
Risk from fraud	2%
Housing issues	1%
Reproductive health, Violence	1%

Figure 15: Women have long-term association with mediators and far reaching





COFFEE









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