



DIGITAL GAP OF BIHAR AND JHARKHAND

Understanding issues and impacts of the digital literacy on women entrepreneurs of Bihar and Jharkhand



STUDY BY
DIGITAL EMPOWERMENT FOUNDATION

DIGITAL GAP OF BIHAR AND JHARKHAND- UNDERSTANDING ISSUES AND IMPACTS OF DIGITAL LITERACY ON WOMEN ENTREPRENEURS OF BIHAR AND JHARKHAND

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Thematic Focus

Women, poor or landless often fall at the bottom most rung of social hierarchy. Knowledge about laws or social security schemes, when made available through Information Communication Technology (ICTs) i.e., when transparency is increased it would help promote the process of mobilisation of the poor in asserting their rights to land and other productive resources¹. This could have unforeseen substantial ripple effects turning women into entrepreneurs within the village, disintegrating older monopolies, where usually men have a control over prominent resources².

This report has tried to understand the impact of digital literacy programmes on the rural leadership and entrepreneurship skills especially focusing on women as to how they may be able to become the disseminating points of digital and financial literacy with

ripple effects on their bargaining power on acquiring social security benefits.

With the objective of capacity building and providing digital literacy, digital services and citizen services, Digital Empowerment Foundation, a not for profit organization that focuses on digitally enabling marginalized communities, among many of their projects, runs a program focusing on integrating community and necessary establishment of digital infrastructure including broadband connectivity – termed as Community Information Resource Centres (CIRCs). This study had chosen 10 such CIRCs – which can be described as a physical space with digital infrastructure consisting of broadband connectivity, laptops, camera, printer, scanner, biometric device and overhead projector. These centres are the hubs within communities for providing educational content, linkages with banking correspondent, ecommerce facility, telehealth subscription, and have a target of at least 500 community members to be benefiting – total of 5000 across 10 locations.

¹DN. (2001). Perspectives on ICTs and Development. ICTs and Development, 36(11), 917-920. Economic and Political Weekly. Retrieved from <https://www.epw.in/journal/2001/11/perspectives/icts-rural-poverty-alleviation.html> [25 January 2021].

²Ibid.



Abstract

The study was conducted with an aim of nurturing rural leadership and entrepreneurship among women of aged between 15 – 40 years from disadvantaged and tribal communities, who in turn will multiply and scale up the impact among the first- generation learners and disadvantaged communities. This was carried out by establishing 10 Digital Rural Makerspaces at Community Information Resource Centres (CIRCs) in Bihar and Jharkhand. Since, these spaces have been led by 10 women entrepreneurs, which then became a hub for training, nurturing, and mentoring the communities of thinkers, makers, and builders.

The report, therefore, shows the gap between the smartphone penetration that stands at 52% and the internet usage 29% that stands at by women, which limits their access to social security schemes as only 15% women have applied to any such schemes. This, in turn, throws light on the need to understand the socio-economic background of communities, their current understanding and knowledge of digital tools as well as Information and Communications Technology (ICT) usage and practices and how women could help dismantle the monopoly of men over the ICT tools snowballing the impact onto their whole community.



Methodology

The research was conducted by deploying a survey questionnaire on 1033 people in 10 different locations of Bihar (Districts: West Champaran, East Champaran) and Jharkhand (Districts: Ranchi and Ramgarh). The questions were formulated to capture

and assess the socio-economic background of respondents, penetration of digital tools and feasibility of setting up women-led unit in the community, after which 10 women entrepreneurs were identified to run the operations of the centres.



Introduction

With India at the cusp of digital revolution, opening new avenues for entrepreneurs, job seekers, education and even healthcare, there remain states in India where digital divide is still difficult to bridge. The Digital India scheme as initiated in 2015 promised to “ensure the Government’s services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or making the country digitally empowered in the field of technology³”, remains an empty promise with states like Bihar and Jharkhand having least percentage of internet penetration at 28% and 26% respectively⁴.

Studies have shown the probable yet substantial ripple effects of the community-based ICTs on rural poor and women, as they carry the potential to become new power

centres in the villages⁵. The studies claim that since the north-east states of India lack developments in the manufacturing sector, IT based services could be proven to be enablers in competing in the economic sector with the rest of India⁶.

This particular study was conducted in two states of India, namely Bihar (Districts: West Champaran, East Champaran) and Jharkhand (Districts: Ranchi and Ramgarh). The study brings forth that out of the total 1033 respondents the smartphone penetration stands at 57%, with only 32% people being Internet users. The difference in usage pattern reflects in low digital and financial literacy of people residing in both these states. This drawback directly limits their access to schemes and services, which is evident from the study as 87% of respondents surveyed have not availed any social security schemes.

Moreover, the digital divide in India is highly gendered with 62% and 72% of

³ Digital India Programme: Ministry of Electronics & Information Technology (MeitY) Government of India. (23 November 2020). Retrieved from <https://www.digitalindia.gov.in/> [25 January 2021].

⁴ The Internet & Mobile Association of India (IAMAI). (2019). India Internet 2019. Retrieved from <https://cms.iamai.in/Content/ResearchPapers/d3654bcc-002f-4fc7-ab39-e1fbeb00005d.pdf> [25 January 2021].

⁵ DN. (2001). Perspectives on ICTs and Development. *ICTs and Development*, 36(11), 917-920. *Economic and Political Weekly*. Retrieved from <https://www.epw.in/journal/2001/11/perspectives/icts-rural-poverty-alleviation.html> [25 January 2021].

⁶ Ibid.



internet users being men in urban and rural India respectively⁷. With keeping the necessity to focus on the women and their complex relations with mobile phones and internet usages, the study showed that even though 93% women claim to have a smartphone, merely 42% of them make use

⁷The Internet & Mobile Association of India (IAMAI). (2019). India Internet 2019. Retrieved from <https://cms.iamai.in/Content/ResearchPapers/d3654bcc-002f-4fc7-ab39-e1fbeb00005d.pdf> [25 January 2021].

of internet. In order to gauge their future as women entrepreneurs and ability to attain entrepreneurial skills, the study also focused on how women use internet to access social security schemes and, it showed that meagre 15% have applied for such schemes.

The report follows the findings are focused on mainly on women revealing their status as active mobile and internet users.



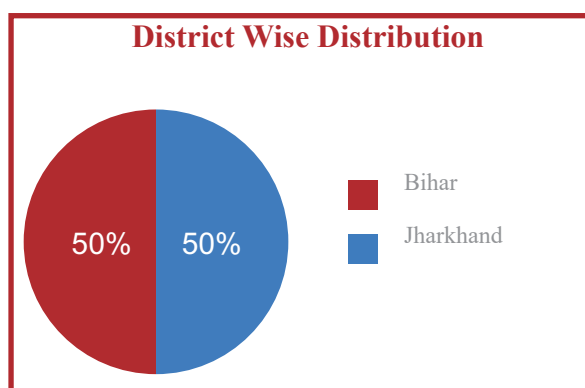
Key findings about women respondents

- 74% of the respondents have a monthly income of less than Rs.5000
- Mobile phone penetration stands at 93% i.e. about 503 respondents own mobile phones (either smart or feature phones).
- Smartphone and feature phone penetration stands at 52% and 47% respectively.
- About 58% respondents do not have access to internet.
- Despite owning mobile phone, the accessibility of internet is low
- Meagre 29% women respondents use internet.
- Only 12% respondents are aware of the feature such as sending and receiving money using phones.
- 90% respondents have a bank account
- Only 5.7% respondents are aware of mobile banking facility, out of which meagre 3% claim to make use of it.
- Only 5.5% have claimed to receive any sort of financial literacy.
- Only 15% have applied for any social welfare schemes.



Demographic Data

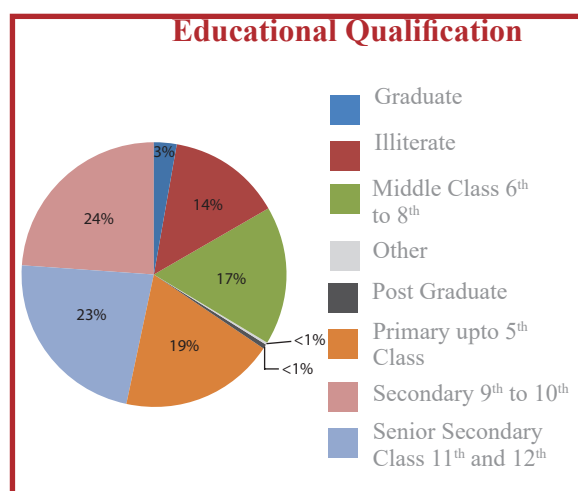
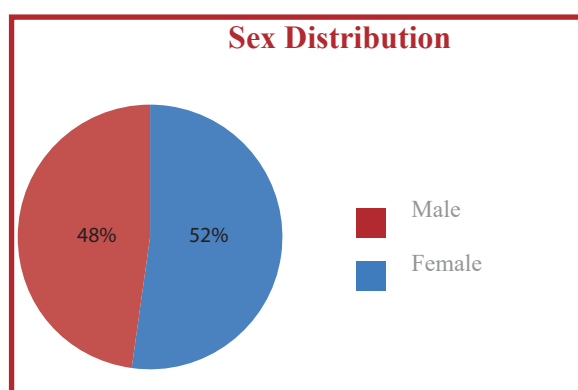
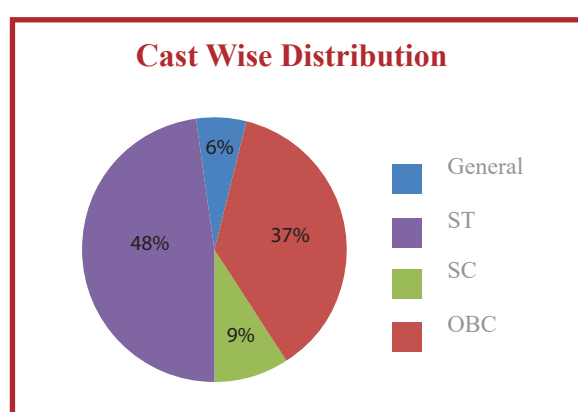
The survey was carried out in two districts of Bihar — East Champaran and West Champaran and two districts of Jharkhand — Ranchi and Ramgarh. A total of 1033 respondents were surveyed with 50% respondents from each state respectively.



In terms of the gender distribution 52% were women and 48% were male. With regards to the caste distribution of the respondents, 48% belong to Schedule Tribe (ST), 37% belong to Other Backward Caste (OBC), 9% from Schedule Caste (SC) and lastly 6% belong to General category. In terms of the educational background of the respondents, 24% of 1033 people have education up to Senior Secondary level, 23% up to Secondary level, 19% have had Primary education, 17% have education up till Middle school, 3% are graduates and lastly 14% of the total respondents are without primary education. Out of 1033 respondents, 139 people are without primary education. 65% of 139 respondents are from Bihar and rest 35% are from Jharkhand. As per a report by National Statistical Office, Bihar stands third from the bottom amongst states with low literacy rates and has a literacy rate of 70.9% which is 6.8% lower than the national average of 77.7%⁸. While in Jharkhand the literacy

⁸Rumi, F. (2019, September 09). Another low as state third from bottom in literacy rate. The Times of India. Retrieved January 29, 2021, from <https://timesofindia.indiatimes.com/city/patna/another-low-as-state-third-from-bottom-in-literacy-rate/articleshow/78003640.cms#:~:text=PATNA%3A%20Bihar%20stands%20third%20from,the%20national%20average%20of%2077.7%25> [25 January 2021].

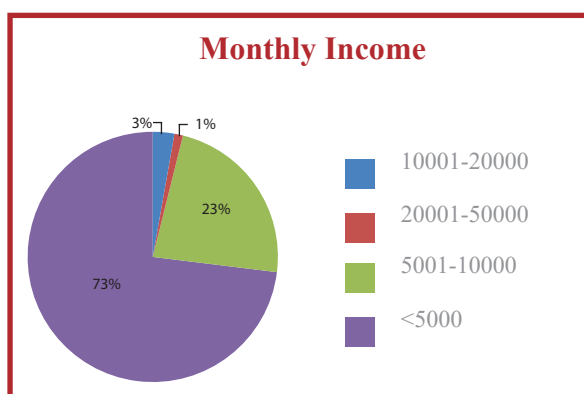
rate stands at 74.3%, this reflects that both the states still lag far behind in terms of achieving literacy levels which affects social and economic development of the community and of the state.



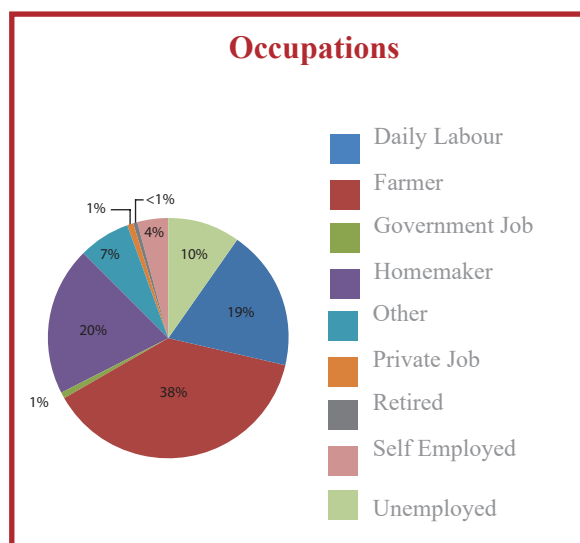
Socio-Economic Background

In terms of the economic background and occupation of the respondents, 38% of the total respondents work as farm labourers, 20% work as homemakers, 19% work as daily labourers, 4% are self-employed, 1% of the respondents each have government and private jobs, 4% are involved in other work such as students while 10% are unemployed.

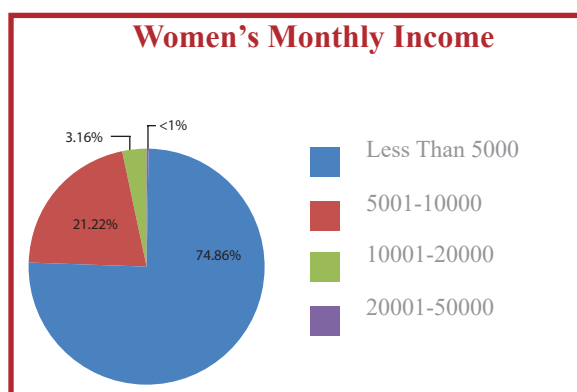
In terms of monthly income, 73% of the total respondents earn less than Rs.5000, 23% earn between Rs.5000-Rs.10,000, 3% earn between Rs.10,001 - 20,000 and 1% earn between Rs.20,001 - 50,000. The agricultural households in Bihar have an average monthly income of less than Rs. 5,000⁹ and out of the total respondents surveyed 757 people earned less than Rs.5000 monthly of which 35% work as farmers. This signifies the lower monthly income of agricultural households in India who can also influence the ownership of digital devices and services. 59% of the total respondents have a nuclear family, followed by 38% having joint families while 3% have extended families and 100% of the respondents live in houses owned by them.

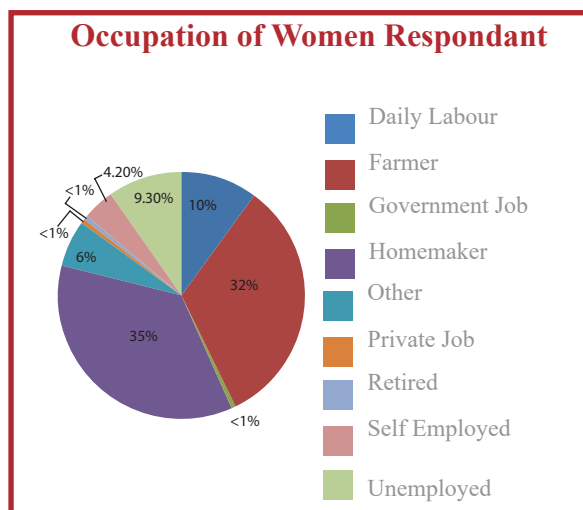


⁹Sharma, S. (2019, July 16). In these 6 states, farmer families live on less than Rs 5,000 per month. The Financial Express. Retrieved from <https://www.financialexpress.com/economy/in-these-6-states-farmer-families-live-on-less-than-rs-5000-per-month/1645832/> [25 January 2021].



In order to gauge the socio-economic condition of women and its impact on their access as well as usage of smartphones and internet, the segregated data of women indicates that as high as 74.86% women have an income of Rs. 5000 or less and merely <1% women have their incomes between Rs.20,000 and Rs.50,000. Also, since majority of them are either farmers (32%) or homemakers (35%), it indicates economic or purchasing power as well as their status in a household has a bearing on their possession of smartphones and access to internet.





ICT uses and practice

Previous studies have explored the possibilities of the digital development via ICTs and its plausible impacts on the rural societies, including their economies¹⁰. According to these studies, developmental ICT projects, while attempting to assist rural communities by providing them with rather inaccessible news, information, advice, and knowledge have allowed them to make informed economic decisions¹¹. At the same time, cheap technology has an equal role to play in increasing the accessibility of the same as it often cut cross the various layers of social structures that are inevitable in the rural society, ultimately deciding the beneficiaries¹².

This section is, therefore, going to explore the accessibility to the mobile phones, smartphones and internet at its usages by the women of the four chosen districts.

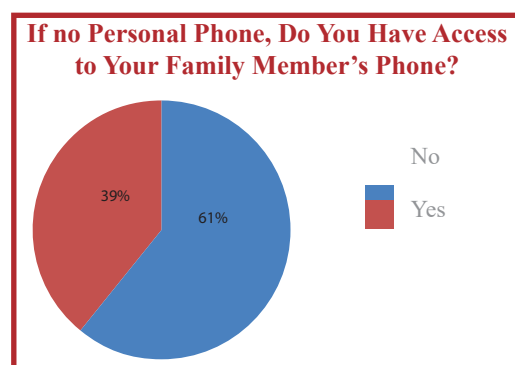
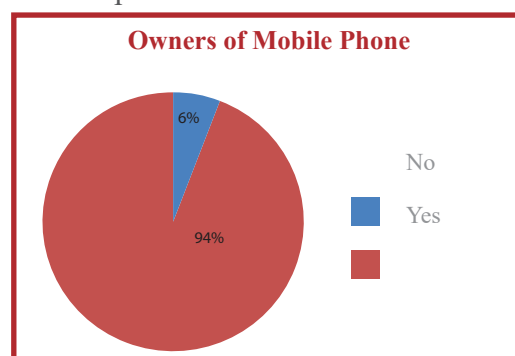
¹⁰ Sood, A. D. How to Wire Rural India Problems and Possibilities of Digital Development, 36(43), 4134-4141. Economic and Political Weekly Retrieved from <https://www.epw.in/journal/2001/43/special-articles/how-wire-rural-india.html> [25 January 2021].

¹¹ Ibid.

¹² DN. (2001). Perspectives on ICTs and Development. ICTs and Development, 36(11), 917-920. Economic and Political Weekly. Retrieved from <https://www.epw.in/journal/2001/11/perspectives/icts-rural-poverty-alleviation.html> [25 January 2021].

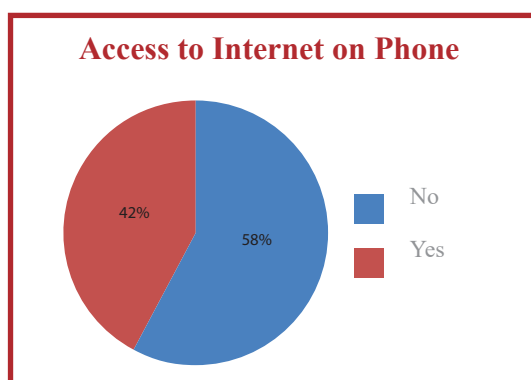
Mobile Ownership

The ownership of a personal mobile phone among respondents stands at 94%, with 52% respondents from Bihar and 48% from Jharkhand owing a personal phone. Out of 974 respondents owning a personal phone, 74% respondents earn less than Rs.5000, this signifies the ownership of mobile phone in low-income households. 59 respondents of the total surveyed respondents do not own a personal mobile phone, 61% of these 59 respondents do not have access to any family member's phone while 39% have.



This data when narrowed down focusing on the women respondents reveals that 93% of them own a personal mobile phone; but out of which 46% have a feature phone as opposed to 54% who own a smartphone. Therefore, the data and its analysis imply how sharing a mobile or not having one can determine one's usage and interactions with ICT services and digital world that can have a forbearing on the services they can avail.

Access to Internet



42% of the total respondents have access to internet on their phones while 58% (597) do not have. Out of 597 respondents who do not use internet, 93% are owners of mobile phone, this shows that despite the owning a mobile phone, the accessibility of internet remains low which in turn is an outcome of low digital literacy rate among women. The possible reasons for this could be attributed to the stringent social structure and its stratification of men-women hierarchy where women are either left behind owing to male dominance among their community or are still hesitant about using the mobiles or internet owing lack of confidence. Similarly, the situation of women respondents is rather grim as merely 42% of them have access to internet but only 29% of them claim to use it on their phones. Such data throws light on the structuring of the ICT related programs as to how they often do not capture the marginalised sections like women for, owning mobile phones or having internet doesn't often end the story rather the digital literacy as well as encouragement to making usage of technology in order to help them

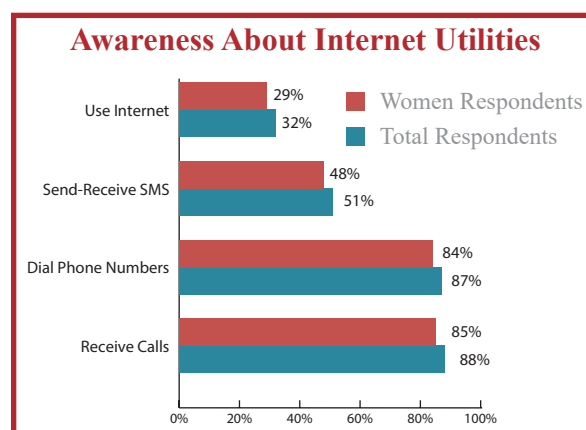
be aware about possibilities about the social welfare government schemes, opening up them with the possibilities of improving their lives.

The accessibility of mobile phone, especially smartphone is more but the internet penetration and its usage remain low.

Awareness about Internet Utility Services

In terms of the functions that respondents can perform on their phones, majority of them can successfully make use of the basic functions¹³ in their phones as opposed to 32% respondents who use internet.

When we look specifically at the women respondents, 85% can receive calls, 84% can dial a phone number and 48% can send and receive an SMS as opposed to the mere 157 (29%) respondents who use internet. This implies that although the respondents are familiar with features of mobile phone and almost 50% use these features such as sending SMS or receiving call, the use of internet remains low limiting their awareness about possibilities about the social welfare government schemes, opening up them with the possibilities of improving their lives.



When the data regarding the internet usage is further divided in terms of the awareness and usage of the utility services by the women respondents, only 12% of them are aware

¹³ 88% of the total respondents are able to receive a call on their phones, 87% are able to dial a phone number, and 51% can send an SMS and read an SMS.

of sending and receiving money using their phones, out of which mere 15% use them. 9% are aware of performing talk-time recharge, out of which merely 12% actually performs it. Other features, such as booking train ticket merely 5% are aware, out of which mere 7 % claim to book train tickets via internet. Similarly, regarding the bill payment feature only 5% are aware of it, out of which mere 6% pay their bills via internet. 5% are aware about mobile banking facility out of which mere 3.3% claim to use this feature.

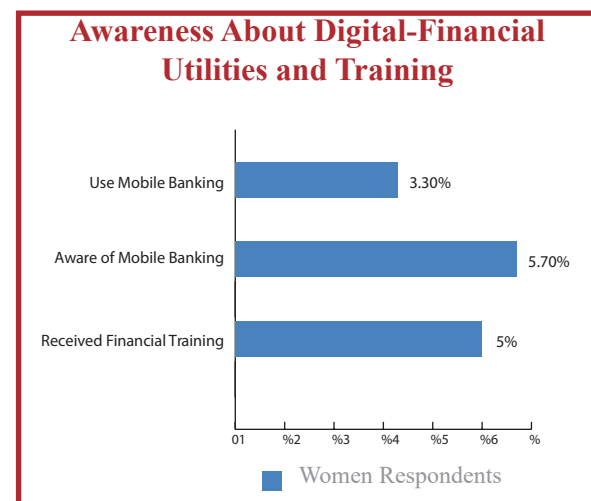
Therefore, the above gendered data leaves us with questions to enquire further into such divisive nature of mobile and internet usages as well as the need to align work towards providing training to women on digital and financial literacy so that they at least be made aware about it and start using it in their work and day-to-day lives which can again influence their economic standing and can lead to more income and even improve their social standing.

Training on Digital and Financial literacy

In terms of financial and digital training that is most likely to help people move towards internet banking, 95% of 1033 respondents have never undergone any training on financial literacy. So, even though 92% (947) of the total respondents have a bank account, 94% of the total respondents are not aware of internet banking. Out of 57 respondents who are aware of internet banking 70% have used the facility. 95% of the total respondents are unaware of mobile banking and only 5% are aware.

This data when segregated by focusing only on women reveal that only 5% of 537 women respondents have claimed to have gone through the financial training. So, even though 90% of the total women respondents have accounts in bank and around 5.7% are aware about the mobile banking, meagre 3.3% make use of the mobile banking, making them more dependent on traditional sources of taking money by either visiting

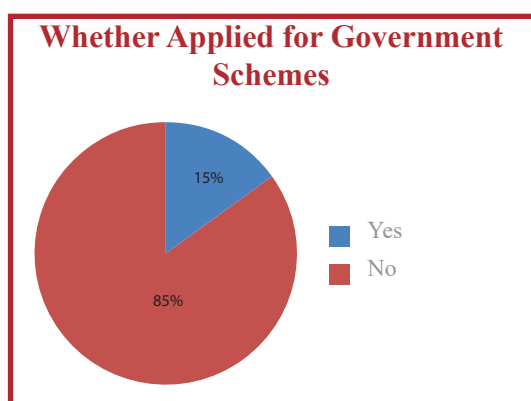
banks or cooperatives on their own or depending on family's male members to accompany them restricting their mobility. Therefore, online banking and mobile banking can help them balance their lives.



Accessibility to Social Welfare Schemes

87% of total respondents have never applied to any government scheme. In terms of social welfare schemes that respondents are availing, 41% of 68 respondents are availing Pradhan Mantri Kisan Yojana, 29% avail Ujjawala Yojana, 15% avail Indra Awas Yojana, 6% avail Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), while 3% avail both Pension Yojana and Phasal Bima Yojana and lastly 2% avail Shram Yogi Mandhan Yojana.

The complexities of women respondents with high mobile penetration coupled with low access to internet and financial – digital training reflects in the ways they have utilised the technology and knowledge for their own benefits: barely 15% of total 537 respondents have applied for any government schemes, maximum of whom have applied for Pradhan Mantri Kisan Yojana (21), followed by Ujjawala Yojana (18).



Recommendations

- There is a greater need to understand the socio-economic background of communities, their current understanding and knowledge of digital tools and their current ICT usage and practices, keeping in mind the complex and stratified nature of Indian society.
- It is crucial to identify communities where Community Information Resource Centres (CIRCS) — a program focusing on integrating community and necessary establishment of digital infrastructure — must be set up which would serve as centres of training of women leaders on digital literacy.
- The ripple effect of enabling women as digital entrepreneurs would help dismantle the monopoly of men over the ICT tools that the study has aptly revealed.
- CIRCS must include training on the following: uses of internet, awareness raising on functions and uses of mobile phone especially smartphone, digital financial literacy, awareness regarding the uses and benefits of doing internet banking.
- Identify and initiate programs focused on income generation using ICT for people having monthly income of less than Rs.5000.
- Identify social security schemes for target beneficiaries and leverage those schemes for community.





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