Swadhaar Saathi Application Report

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1. EXECUTIVE SUMMARY

In April 2017, Swadhaar FinAccess – a not for profit organization aimed at promoting financial inclusion – took a big step towards digitizing their offering by launching the Swadhaar Saathi Application (or SSA). As an organization, Swadhaar has been heavily involved in imparting financial literacy to women in lower income groups across Mumbai. Their efforts have ranged from hosting classroom training modules to organizing door-to-door visits for their customers – where Swadhaar trainers personally offer their help and advice as required. With a growing need to upscale, and reach out to larger masses as a result, incorporating technology into their offering became the natural next step for Swadhaar. This effort began with the introduction of tablets to their training modules and further expanded in 2013 when Swadhaar launched a mobile money pilot in partnership with Airtel Money and Axis Bank. With an innovation grant from Citi Foundation in 2017, Swadhaar launched the Swadhaar Saathi Application to help women better manage their finances and run their lives (and the lives of their families) more efficiently. By providing information on various financial tools, the app encourages these women to save more, and also makes users cognizant of their longer term financial prospects. For instance, the most commonly reported loans after adopting the app were education loans and business loans, with 110 and 94 entries respectively – pointing towards users' new found ability to actively invest in themselves and their children.

For the team at Swadhaar, developing a mobile application for women who were neither tech savvy nor prior smartphone users, was a key challenge. The app went through multiple iterations where every detail – both major and minor – was carefully vetted by the team. Constantly re-designing icons to ensure instant comprehension and hashing out wire frames to ensure easy navigation, were par for the course. Obtaining real time feedback from users, at every stage of app development, was another critical tool to ensure Swadhaar's product was always aligned with their users' needs and expectations.

Swadhaar's field trainers and peer educators played a critical role in driving the app's success. While losing personal touch is a fear with most digital applications, the team at Swadhaar were clear that face-to-face interactions between users and trainers would remain key to their offering. The continuous hand holding and support offered to users made app adoption (especially to an audience unaccustomed to using smartphones) that much easier.

One year into the pilot program, almost all Saathi app users claim financial accountability. Thanks to their ability to now recognize and curb unnecessary expenses, many reported a noticeable improvement in the amount of money they manage to save each month. A significant improvement in the adoption of various formal financial instruments was also noticed. In the pilot phase alone, 111 entries for insurance, 70 entries for new bank account openings, 44 entries for RD accounts and 22 entries for government insurance schemes (for the girl child) - were recorded.

Positive word of mouth from pilot users also led to the induction of independent users - women who started using the application on their own mobile phones – into the program. As of June 2018, the app had 7500 downloads (1295 of which were recorded during the pilot phase).

Critically, the app has allowed women to enter an arena they have traditionally, almost always been excluded from – financial decision making in the household. This exclusion has tended to leave women out of the formal financial system in the country for years.

Though in varying degrees, most users today seem to be more financially participative – be it in terms of managing the household budget or putting money aside for their children's futures. Roughly 40% of women from the pilot also reportedly opened private bank accounts for themselves – these accounts either did not exist earlier or were, at best, joint accounts with their husbands. With personal accounts, they are now able to access funds – albeit limited – on their own terms. Further, by giving the woman access to the internet and a

smartphone, Swadhaar has helped enhance female participation in yet another space that has traditionally been low involvement for Indian women – digital technology.

Swadhaar's Saathi Application has therefore been a key enabler of female inclusion and driver of female empowerment. Overtime, users themselves have become the biggest advocates for the app, encouraging and training their peers to use the app and as a result, to take charge and be more in control of their lives.

2. CONTEXT

India overview:

India is the second most populated country in the world with nearly 1.3 billion people, almost one-fifth of the world's population. It is the world's 6th largest economy by GDP (nominal) and the 3rd largest by Purchase Power Parity (PPP). India ranks 139th in per capita GDP (nominal) with $2,134 and 122nd in per capita GDP (PPP) with $7,783 as of 2018[1].

India is fast urbanizing - the 2011 census shows 31.16% of the country as urban (based on the Census definition) with 377.11 million of its population residing in urban areas. As per a 2007 UN State of the World Population report, 40.76% of India's population is expected to reside in its urban areas by 2030.

According to the 2011 census, 65 million Indians reside in urban slums. However, as per United Nations Development Program (UNDP), India: Urban Poverty Report 2009, there are 81 million people (over 25% of the urban population in Census 2001) in urban India who live on incomes below the poverty line.

Women in India overview:

The 2011 Census reported a sex ratio of 943 for India, an increase from 933 recorded in 2001. It reported an urban Indian sex ratio of 929, lower than that of rural India which was at 949.

Literacy rates and education levels are leading indicators of socio-economic conditions. The female literacy rate has always remained lower than that of men in India. At present the female literacy rate is 64.6%, which is 16.3%less than the male literacy rate (the adult - 15+ years - literacy rate for women is at 59.3%). In urban India, the female literacy rate is 79.11%, i.e. 10% lower than the corresponding number for men.
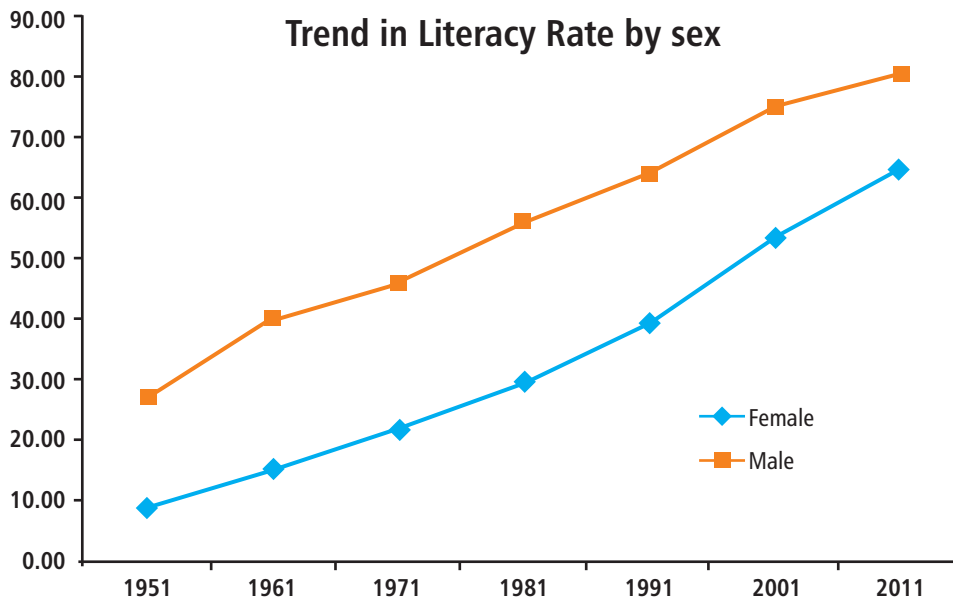
Source : Census of India, Office of Registar General, India.

Figure 1: The graph shows how female literacy rate has always remained much lower than that of males in India but always rising

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[1]Wikipedia: https://en.wikipedia.org/wiki/Economy_of_India

Women constitute roughly half of the economically active population, but their contribution to economic activity is far below potential. In 2011, the Workforce Participation Rate at an all India level was 25.5% for women and 53.26% for men. According to a World Bank report[2], female workforce participation in India fell from 34.8% in 2013 to 27% in 2017.

While there is no rural – urban gap for men (53%), there is considerable rural – urban gap for women (rural - 30%, urban - 15.4%).

As a result, women are contributing to a mere 17% of the country's GDP. Lower levels of education are not the only reason for this grim state of affairs as women's education levels have steadily increased over the years, a 20% increase between the Census period of 2001- 2011. UNDP's 2015 Report[3], Women's Voices, Employment and Entrepreneurship In India shows in urban India, 68.3% of women who graduate don't have paid jobs.

Financial Literacy overview:

Awareness of, and access to, financial services is a core enabler of economic development. This is even more pronounced in the case of women (esp. in developing countries) where it is a catalyst that helps them climb out of poverty and social marginalization through entrepreneurial activity, employment in SME's, and assorted productivity-enhancers, leading to wealth creation and asset ownership. The Global Findex maintained by the World Bank shows that South Asian countries have the widest gap in financial inclusion between men and women.

Digital Literacy overview:

The gender gap in mobile phone ownership in India stands at 46% - a combined effect of lower financial and decision making power resting with women. However the gender gap in mobile access is lower at 14%.
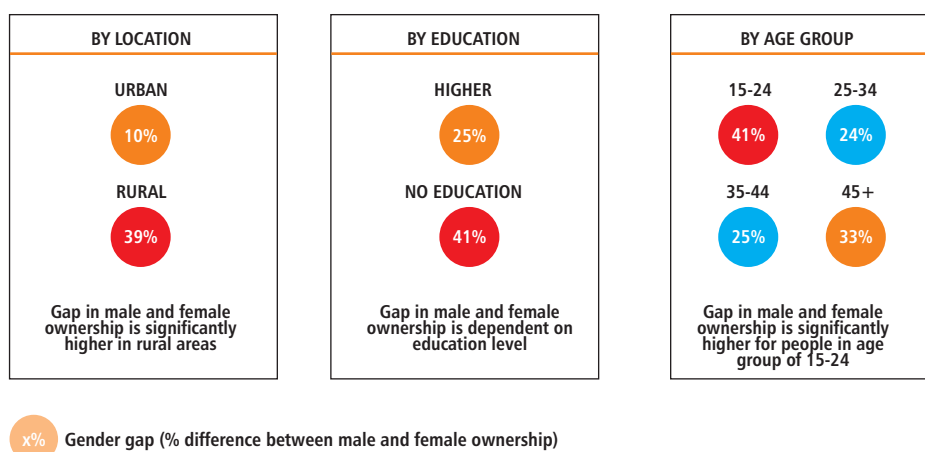
Gender Gap in Mobile Ownership in India

BY LOCATION	BY EDUCATION	BY AGE GROUP
URBAN 10%	HIGHER 25%	15-24 41% 25-34 24%
RURAL 39%	NO EDUCATION 41%	35-44 25% 45+ 33%
Gap in male and female ownership is significantly higher in rural areas	Gap in male and female ownership is dependent on education level	Gap in male and female ownership is significantly higher for people in age group of 15-24

x% Gender gap (% difference between male and female ownership)

Figure 2: Shows the main reasons behind the gender gap of mobile phone ownership in India; GSMA Study 2015

[2]2017; World Bank, Precarious Drop Reassessing Patterns of Female Labor Force Participation in India
http://documents.worldbank.org/curated/en/559511491319990632/pdf/WPS8024.pdf
[3]2015; UNDP, 'Womens Voices, Employment and Entrepreneurship in India:
http://www.in.undp.org/content/india/en/home/library/poverty/women-s-voices--employment-and-entrepreneurship-in-india/

GSMA in their 2015 study[4] estimated 114 million fewer women than men own a phone and also reported a 10 percentage points gender gap in Internet and smartphone usage—17% women and 27% men in India. The reason behind women's lower engagement is not always access to technology but also the inability to make meaningful use of it.

According to the Internet in India 2017 report[5] released by the Internet and Mobile Association of India, there are a total of 481 million internet users in the country of which only 30% are women.

Gender Gap in Mobile Engagement in India

FOR EVERY 100 MALE USERS IN INDIA

86 Women have any access

83 Women have received calls

81 Women have made calls

54 Women own a phone

49 Women have used SMS

33 Women own a Smartphone

30 Women have done a Financial Transaction

28 Women have Internet

27 Women have any other app
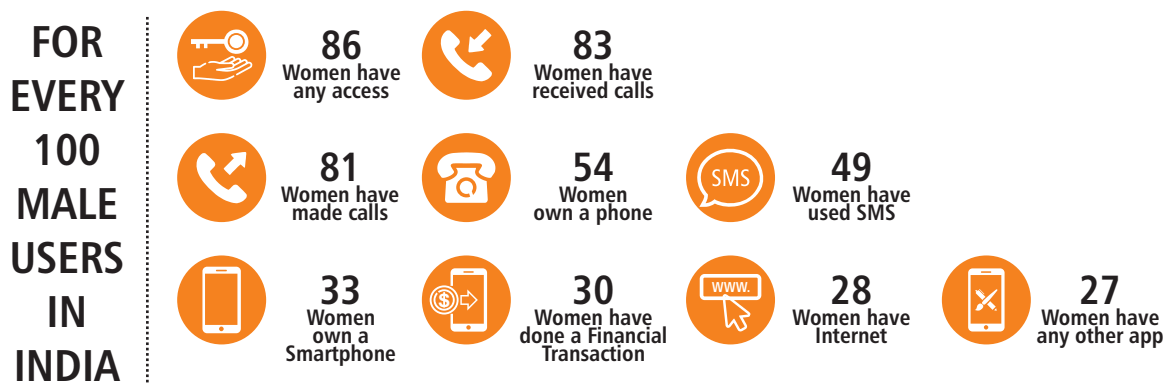
Source : Chart derived from Charity Troyer Moore and Rashi Sabherwal article on The Indian Express on Dec, 27, 2017[6]

Figure 3: Shows the gender gap in mobile phone usage in India

[4]2015; GSMA, Women and mobile in India: Realising the opportunity:
https://www.gsma.com/mobilefordevelopment/programme/connected-women/women-and-mobile-in-india-realising-the-opportunity/
[5]2017; IMAI, Internet in India:
http://www.bgr.in/news/only-30-percent-internet-users-in-india-are-women-iamai-report/
[6]https://indianexpress.com/article/technology/opinion-technology/can-india-answer-the-call-addressing-the-gender-gap-in-mobile-phone-access-4995705/

3. PROJECT OVERVIEW

Project Description :

Swadhaar has been working on financial literacy among urban low income communities for the last 10 years. With the objective of helping people use financial products in the best possible manner, Swadhaar has focused on its financial literacy centers and classroom training modules. The organization has been built on the belief that just providing access to financial products is not enough – information needs to be accompanied by adequate knowledge and training.

Swadhaar's Saathi App (SSA) was conceptualized as an extension of this belief. Digitizing the offering made products more scalable and gave Swadhaar the opportunity to reach out to larger numbers, while keeping its core offering intact. Specifically -

- **Financial Literacy** : To educate users about various financial tools and more importantly about better financial management

- **Access to financial products** : To allow users to access various money management tools, saving and investment schemes

- **Help center** : To give users access to a helpline facility, thereby ensuring adequate hand holding and support (both digitally and physically by means of trainers and peer educators)

One year into its pilot, Saathi has been successful in helping its users better understand their financial behaviour, in making them conscious and accountable for their expenses, and in helping users improve their knowledge of basic financial tools.

Participants of the Swadhaar Saathi Application (SSA) pilot shows off their new smartphones

Developing the app :

In order to develop the Saathi app, two partners were brought on board for technology support - View Field Labs, and Epitome Entertainment and Media. View Field Labs, the technical partners helped Swadhaar FinAccess develop the app with a robust back end. Epitome Entertainment and Media helped create the interface of the app, after gaining a deep understanding of the end consumers, their needs and comfort levels with technology.

Before the app went into its first stage of development, Swadhaar conducted multiple surveys to understand the acceptability and potential of digitizing its financial learning and money management offering. Internal conversations around smartphone penetration with their target audiences were also part of the pre app development phase. Almost always, these surveys and conversations revealed a positive inclination towards app adoption.

> " We did an informal survey to understand mobile phone access within the segment.
> What we saw was that around 30-40% of women have their own mobile phones.
> There were family-owned phones to the tune of 80-85% …so mobile phones were accessible…
> so were Android phones. We also checked on the interest levels – whether they want to use
> something like an app – and they all said yes! "
>
> – Preeti Telang, CEO, Swadhaar

The team at Swadhaar also looked at various other financial apps – both Indian and foreign – to get a sense of what the space had to offer. Much of their research indicated that while many apps did exist, most were too far-fetched in that they always required users to have some pre-existing financial knowledge. This is important to note because it further reinforced to the team, the importance of developing an app that would be very simple and easy to follow - one that could be used by anyone.

> " Each of us on the team looked at various apps to understand what was out there.
> The one thing we felt was that all these apps were quite far-fetched. Just in terms of the
> content they had, it felt like you always had to have some prior knowledge in order to use the app.
> We didn't really find anything out there that had the kind of knowledge and hand holding
> we wanted to create. "
>
> – Jamuna Khatri, Manager, Swadhaar

Another key consideration in the initial stages of app development, was the ability to leverage elements of Swadhaar's previously successful 'budget diaries' in their digital offering. A team of interns who worked on the budget diaries were brought back when the Saathi app was being developed. Further, Swadhaar's peer educators, financial-health workers, trainers and community women were regularly consulted to understand what their customers would and would not like.

The team spent a significant amount of time detailing various stages and steps that customers would experience while accessing the app. Each wire frame was further broken out into a flow chart (representing the outcome of each possible click/tap by the customer). This was a critical process intervention as it helped ensure maximum ease of navigation for users once they started using the app on their own.

Figure 4A depicts how the main screen of the app was visualized in a wire frame model and later broken down into a process flow chart as shown in Figure 4B.
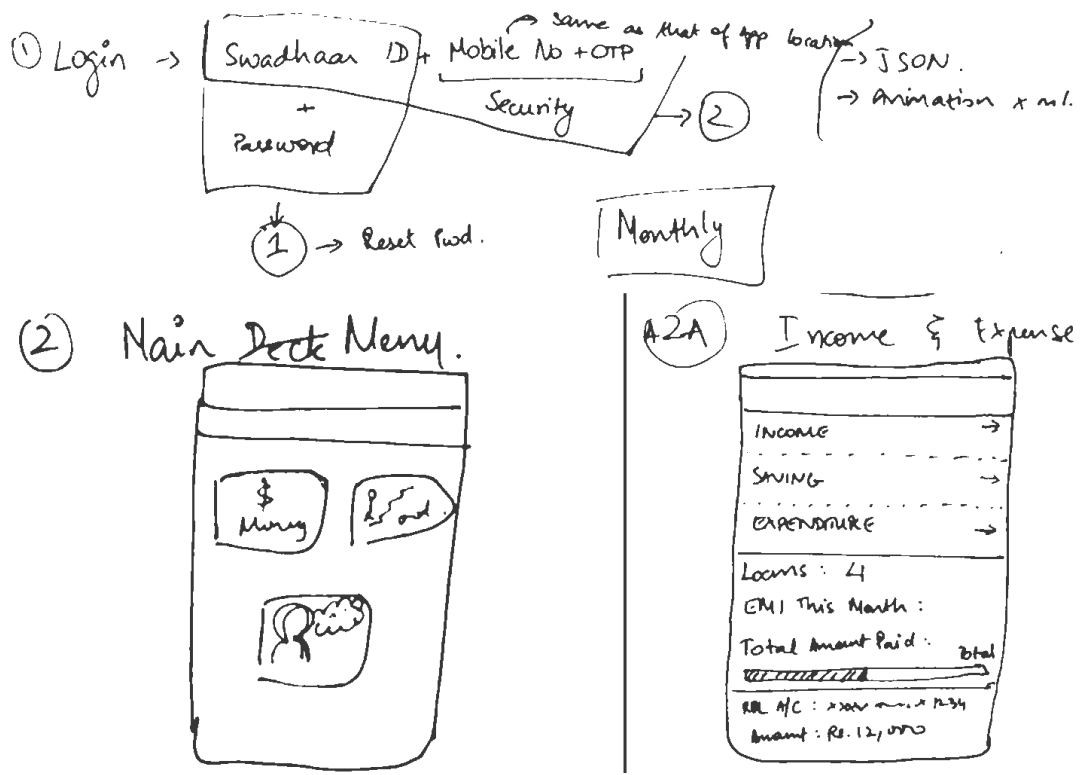
Figure 4A: Developing the main screen of Saathi app (Preliminary sketches of the wire frame)
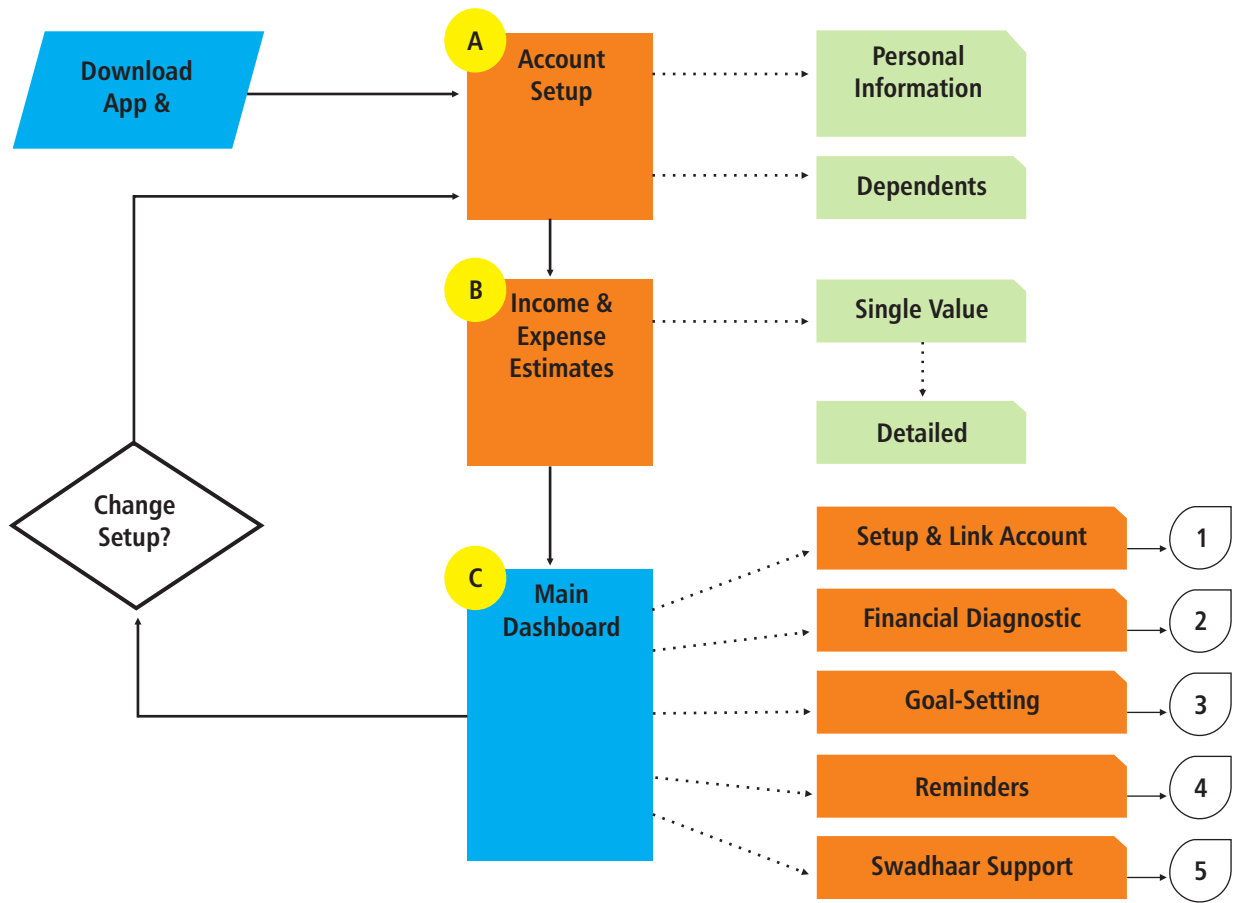

Figure 4B: Flow chart depicting the development of the main screen in the app

It was also critical for the design team to get the User Interface (UI) of the Saathi app right – in order to ensure maximum ease of navigation and use. Wire frames were created and tested with customers in real time which helped understand which app elements were to be retained and which were to be eliminated.
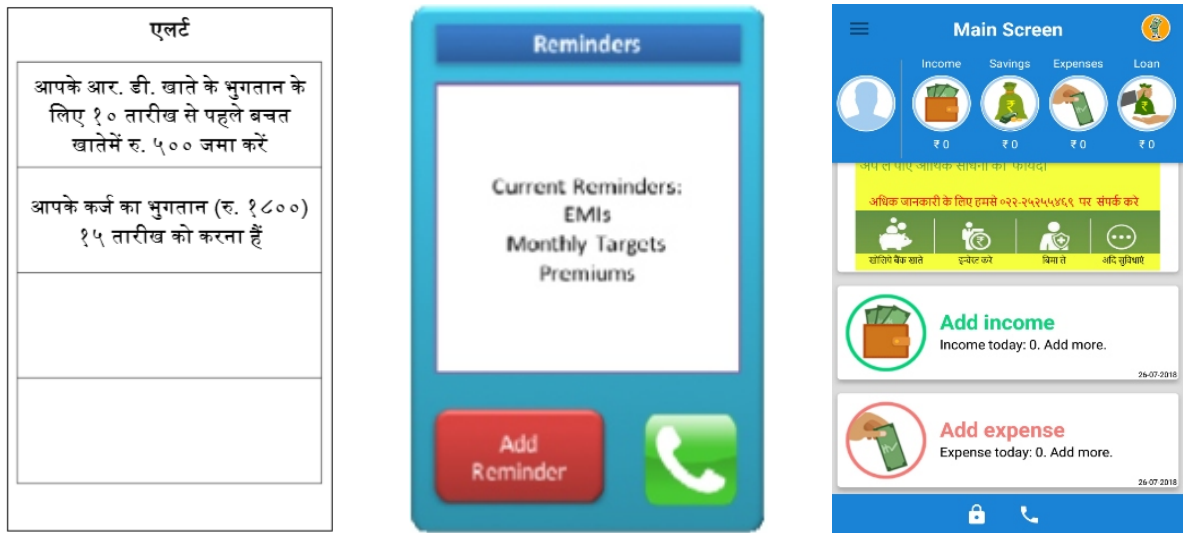

Figure 5: Screen shots of the app in its various stages of development. From L-R : Initial wire frame tested, the screen further into its development phase, the final screen as seen on the app today

A happy user of the Saathi app proudly shows off her account and the entries made into it

In some cases, initial testing of the icons revealed that customers were unable to accurately decode the images being used. While their guesses were in the vicinity of the intended communication, the team at Swadhaar wanted to ensure there would be no ambiguity whatsoever. For this reason, a significant amount of time was spent re-working and refining the icons to ensure that customers would not face any difficulties in comprehension. The technical and the design team also interacted with the users and Swadhaar field staff to understand their requirements.
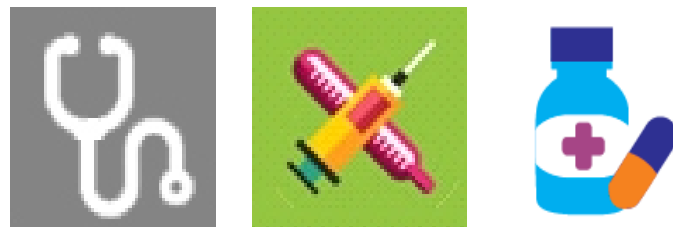

Figure 6: From L-R: The first 2 images represent the icons initially tested that brought out reactions such as 'hospital, doctor and injection'. Seeing that the intended interpretation was 'medicine', efforts were concentrated towards ensuring the icon was clearer. The bottle and capsule was the clearest link to 'medicine' and was therefore chosen as the final icon
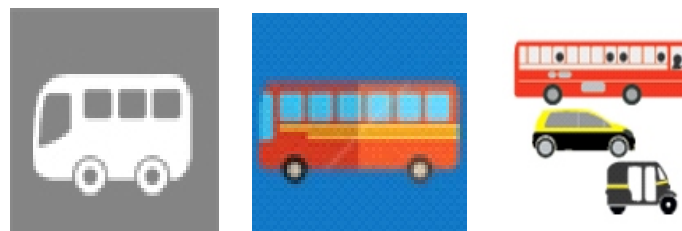

Figure 7: From L-R: Similarly, while developing the 'conveyance' icon, consumers initially guessed bus and travel (the first 2 images). However seeing that the intention was to get the user to input all local travel details, the icon was further developed to picture the 3 most common modes of daily local travel – a bus, a rickshaw and a taxi

The team was also clear that the app had to be visually appealing. Research with potential users had indicated that bright colours were important, as were easy to grasp text and icons – i.e. words and images that could be understood in a single glance, without any room for self-doubt on the part of the user.

Even in cases where customers were able to accurately decode an icon, the Saathi app design team dedicated time and effort towards ensuring the icon would look as visually appealing as possible. In both examples below, customers were able to correctly identify 'electricity' (the top 3 images) and 'toys' (the bottom 3 images) in each of the three stages of icon development. The icons were refined nonetheless in order to enhance their visual appeal.
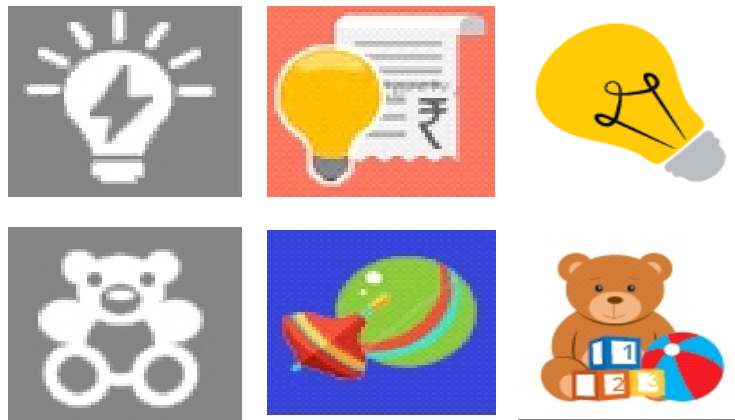
Figure 8: Examples of icons that were refined in order to look more attractive

Swadhaar also took inspiration from WhatsApp – an app most potential customers had seen or used at least once, to look at a message or a video (even if not on their own device). There was a sense that users generally understood alerts, notifications and basic messages, thanks to their exposure to WhatsApp. This led to the creation of cards on the app – which would appear frequently in easy, readable bites.

> "A lot of time was spent on thinking through what the UI should be…we spent a lot of time with people to understand what visuals would and wouldn't be accepted. Why a particular colour scheme should be used. The app is a very 'jhatak' app, it is not a sober app. The app is bright, it has a lot of colours and many icons because that's what this audience likes…it holds their attention…literacy levels were low, so this was the best way to ensure they understand us"
>
> – Preeti Telang, CEO, Swadhaar

Number of potential customers who showed interest in different app interface options
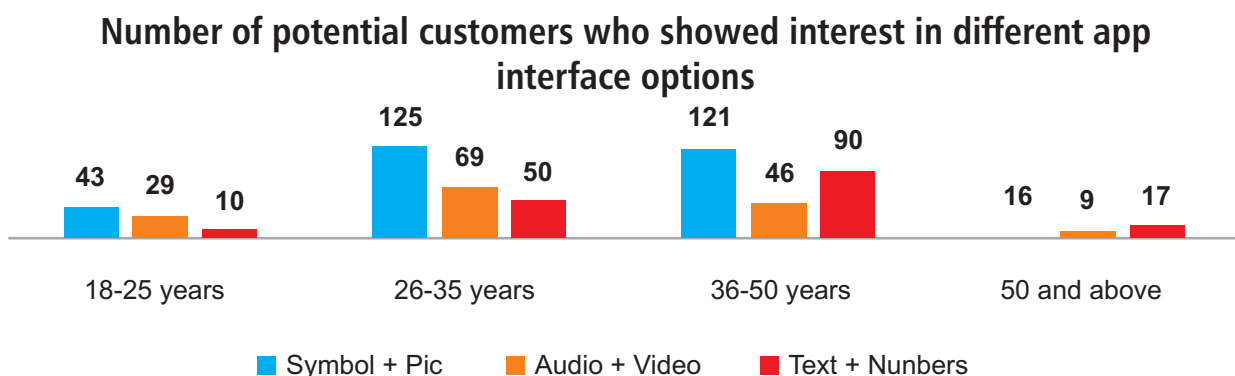

Figure 9: A survey carried out by Swadhaar in the pre pilot phase indicated that most potential customers (across age bands) chose symbols and pictures as their app preferred interface option; n=375

Launching the pilot :

One of the biggest challenges for the team at Swadhaar was the identification of customers most appropriate (in terms of felt need) for the pilot program. Some objective criteria with a clear rationale were outlined:

- **Customers from 3 geographies (Ghatkopar, Thane and Bhandup)** – locations where Swadhaar had a strong presence of trainers and peer educators who could be easily accessed for help throughout the pilot. These were also the locations where the digital training modules were rolled out.

- **Customers who did not have an Android phone** – else their motivation to obtain a new phone and run the app would not be as much. The intention was also to test the comfort in usage and support required for women who had never used smartphones.

- **Customers who were between the ages of 25-50 years** – crossing this age limit suggested that app adoption would be that much harder and slower. This was informed by Swadhaar's past initiatives that had showed the acceptance and adoption to technology was low among older age group.

- **Customers with an average household income between INR 8000-20000 per month** – anything less would leave too little to input and manage within the app; anything more would imply a more economically well off family (not Swadhaar's target audience).

- **Customers whose children were not too young/infants** – to ensure the mother had enough time to dedicate to learning and using the app.

- **Customers living in their own homes** – to ensure they could be easily accessed throughout the course of the pilot (rented homes could imply a transient or uncertain living situation).

Customers chosen for the pilot spanned a variety of religious communities including Hindus, Muslims, and Neo Buddhists.

Swadhaar also made a conscious decision to include users from a variety of educational backgrounds – mainly primary and secondary school pass, some 12th pass, and a few who had graduated.

Most of the women were housewives or ran small home-based businesses; a few were engaged in salaried jobs. These women all fell within the age bracket of 25-55 years; were married with children. A majority of them stayed with their husbands, children, and in-laws; on average comprising of a 5-6 member households.

Most respondents stayed in their own houses located in settled slum neighborhoods with pucca (brick and mortar) construction, sheet-roofing, attached toilet and bath, and designated kitchen area.

Some other subjective criteria – equally, if not more important – were left to the discretion of Swadhaar's on-ground trainers:

Enthusiasm and curiosity to learn - It was important for pilot users to display a certain hunger to learn how to not only operate a smartphone but also a money management app. Many a times these consumers get tied up in their household duties and have to forgo things they want to have, see, learn, etc. It was therefore important for the Swadhaar trainers to feel an urge from the customer to overcome these barriers and learn nonetheless.

As a part of the pilot, 175 users were given a smart phone (Android) with a 3 month data-calling pack (Jio-399). Of these, 16 users dropped out in the first month while 5 lost their phones and were not able to continue in the program – therefore the final tally of those who continued with the pilot is 154 users since April 2017.The pilot ran for a period of seven months until November 2017 during which the users were given constant hand-holding support by means of the Helpline as well as the on-ground trainers and peer educators. Later, these pilot users shared the Saathi app with their friends and family, helping the app reach a wider user base, which currently stands at 400 active users. All the other users of the Saathi app barring the 175 participants in the pilot were referred as Independent users. As of six months from the launch, the App has been downloaded 1295 times from the Google Playstore.

Project Objectives :

Primary

To create a digital financial literacy platform that would help users:

-Make informed decisions – through tracking of daily income and expenses, monitoring of savings.

-Access financial products – through education on various loan and insurance schemes by government or private institutions relevant to the users.

-Reach out for help whenever they needed to understand anything related to formal financial systems.

Project Significance :

Swadhaar's Saathi app is centered on the concept of inclusivity and empowerment for women. The app aims to improve both the financial inclusion and digital inclusion of its customers.

Financial Inclusion:

Very rarely do the women who fall under Swadhaar's target group have control over the finances at home. As a result, they lose much of their power, are unable to make decisions and are never able to utilize money in the right manner. Even when the woman herself is the breadwinner of the family, she tends to get excluded from financial decision-making simply because she is not equipped enough to participate.

The Saathi app aims to tackle this very exclusion – to better prepare the woman to manage her finances, to help her make proactive and informed choices for herself and her family.

Digital Inclusion :

Similarly, women in India have had little to no access to the country's growing digitally enabled spaces. It is the man who tends to be the one who owns and operates the smartphone at home. The Saathi app not only helps more women access smartphones but also facilitates greater overall digital exposure and participation in women.

Project Limitations :

While the Saathi app continues to be refined and further developed, the team at Swadhaar is cognizant of the fast changing nature of technology and the need to be agile and up to date with it – this is an important consideration, as the failure to keep up could mean that the app would potentially lose its customers to better quality digital products.

The team is also well aware of the mammoth task that lies ahead – of scaling up.

Finally, given that Swadhaar has been built on a trusted network of trainers and peer educators, moving from a physical to digital module has always held the risk that growing smartphone usage might limit personal interactions. Having said that, Swadhaar has always been aware that the on ground support is crucial to the initial success of the app but in the long run, the app could be a standalone product.

> **"** The face to face interactions are a key part of Swadhaar's training. While we knew that going digital would limit some of it, we were very clear that we will not at all do away with the personal interactions. **"**

<div align="right">

– Preeti Telang, CEO Swadhaar

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4. KEY OBSERVATIONS & LEARNING

Social/Economic/Cultural :

Family context:

In terms of observed app usage behavior, women who have past experience of managing household finances found it somewhat easier to adopt to using the app regularly.

Working women tended to keep account of their own income as well as the money handed by their husbands to run the family. In few cases women were seen to be making income and expense entries for their husbands and other earning members of the family under different tabs as well as making entries under the 'Others' tab for any cash inflow (such as rent received, income from selling of raddi etc.).

However, there were few cases where the mother in-law was in charge of household finances and as such the daughters-in-law were deliberately prevented from knowing the exact nature and amount of income and expenses - this proved to be a significant barrier in their regular utilization of the app.

Number of Saathi Users inputting various income types

Income Type	Value
Child's Income	7
Other Income	8
Wife's Income	35
Husband's Income	57

Figure 10: Graph showing the income types and the number of Saathi users who have inputted under these tabs (108 entries from the 145 Saathi users).This data corresponds to the post pilot phase, Nov2017-Jun 2018

Most women were supported by their husbands in their efforts to keep track of the household finances through the Saathi app. It is noteworthy that the **users convinced their husbands on their own about the usefulness of the app – an indicator of the empowerment that these women were able to gain through the functional benefits offered by app usage.** However it is important to note that significant debts incurred by the husband or in-laws were not always shared with women – a cultural barrier that will take some overcoming.

Women whose husbands were daily wage earners took extra effort to enquire about their everyday earnings to make entries into the app accordingly. In most cases children were also supportive - regularly reminding their mothers to make entries into the app and also reporting to them the smallest of expenses that they had incurred on their own.

> "My daughter informs me of every rupee she spends and tells me to make an entry even for the 5 Rupees that she spends on buying a toffee. My husband also informs me of all the expenses that he incurs in the day. Clearly, our whole family is hooked on to Saathi."
>
> – Housewife, 38 y/o, Bhandup, Mumbai

Financial context:

Most households were being sustained on daily wages - with husbands occupied in work as rickshaw drivers, shop owners, tailors or mechanics. The same was true for the women who were either running small businesses (tailoring, shouldering/metal works) from their homes or earning some skill based sporadic incomes (baking, crafts). Only very few households had atleast one earning member with a regular salaried income - holding clerical jobs in government offices or schools, or working as Anganwadi workers (women only).

Women who were making entries for all earning members of the family could get a broader overview of the household finances on the app as it offered a more accurate overall picture to them. This also enabled them to gain a better understanding of their **future financial prospects** which was a significant confidence booster. In some cases, there were other cash inflows into the house via the income of the in-laws or other members which went largely unaccounted.

As such, for those making entries of only the amounts received from their husbands to run the house, the utility of the app **narrowed down to planning only household monthly budgets**.

> **"**My husband had taken a loan few years back, and we are still re-paying it. Earlier I was not aware of the details about this loan but now, he shared the details to be entered into the app. Every month, Saathi sends us a reminder about the repayment date which also helps us to manage our other monthly expenses around this date.**"**
>
> – Housewife, 35 y/o, Vikroli, Mumbai

Education Level :

Most of the pilot users were high school educated, with graduates and degree/diploma holders as the exceptions. It was observed that t**he greater the degree of education a user had, the higher was their engagement with the app**, indicative of both a better grasp and understanding of the app, as well as confidence in using it. The women who were graduates and held or had held private sector salaried jobs were seen to be using the app in English with great ease and found terms like 'goals', 'summary', 'financial health' familiar and comprehendible. However **a majority of users did not fit this description and were using the app in a vernacular language- Hindi or Marathi**. Importantly, though they did not experience any major difficulty despite their lower education levels as the descriptive icons added to their better understanding of the tabs.

Digital/ Technological Familiarity :

Most of the users were the first time users of a personal smartphone; while they had earlier owned feature phones. A few were first time users of mobile phones per se. Some had used smart phones of their husbands and other family members and were familiar with apps such as WhatsApp and Candy Crush. Most women reported having learnt how to use a smartphone from their children or other younger members in their families. While WhatsApp was the most popular app among these women, they also mentioned Google searches (for children's project work), YouTube (for entertainment and learning recipes) and Facebook (mentioned by very few) as apps known to them prior to the pilot.

Users belonging to higher age bands (40+ years) faced some teething troubles with managing a smartphone - problems such as getting logged out of the app, battery power getting extinguished, fear of pressing wrong buttons etc. They sought the help of the trainers and peer educators in resolving these issues. However these initial hitches were overcome within the first few months of the pilot with the help of adequate training. Today all of them effectively use the Play store to download apps and use 'Share It' to share apps. Many have successfully shared and installed the Saathi app on their friends' smart phones resulting in a wider user base for the app.

Financial Literacy:

Most pilot users reported having learnt about financial products and money management through Swadhaar's workshops and handholding by the trainers and peer educators. The topics covered in the workshop (as reported by users) ranged from the opening of bank accounts to saving instruments such as recurring deposits and fixed deposits, to insurance and loans, and Government-sponsored schemes like Sukanya Samruddhi Yojna, Pradhan Mantri Mudra Yojna and more. Most users had bank accounts - mostly joint accounts with their husbands, few with personal accounts; were carrying out tasks such as depositing cheque, withdrawing money, updating passbooks and more on their own. Users who held salaried jobs were additionally aware of financial products such as loans and insurance. The workshops equipped users with knowledge that furthered their engagement with the formal banking system by guiding them to open RDs and FDs and sign-up for insurance. Many users opened their own personal bank accounts after being introduced to the world of formal banking through Swadhaar's workshops. These workshops also furthered their engagement with financial products such as opening up of RDs and FDs and signing-up for insurance.

Proceedings of a Financial Literacy workshop conducted by Swadhaar as a part of inducting the pilot users to Saathi.

" At first, I was very afraid to use the app as I have never used a touch phone, What if I pressed wrong buttons and the phone stops functioning!! I used to call up our trainer for every little thing as small as the phone getting discharged. But now, I am very confident in using the app. I can proudly call myself, a Saathi Expert. "

– Anganwadi Teacher, 50 y/o, Bhandup, Mumbai

A few users had their ATM cards linked to their bank accounts. While only some of them were comfortable withdrawing money from an ATM, **most expressed apprehension around this task –led by a fear that money might get wrongly deducted from their accounts or that their card might get corrupted during the ATM transaction**. An almost negligible number of users had swiped their card at retail points or used it for online shopping. Everyone was familiar with e-commerce sites like Flipkart and Amazon, and while a few had even made purchases (mostly through their children and younger members of the family), Cash on Delivery had always been their preferred payment option for online purchases. None of the users reported having used internet banking or online wallets to make any transactions – though they were aware of both options, they were not familiar with the process of doing so and expressed their desire to learn about it.

Figure 11: Push card notifications on financial schemes by Government as sent to the users of the Saathi app in bite size format

The push-notification cards sent out by the Saathi app were seen to be helpful by the users as they reaffirmed the learning from the Swadhaar workshops and acted as a reminder for the users to work upon. The information given out through these cards combined with the learning from the workshops also raised their interest in financial products (Pradhan Mantri Mudra Yojna, Sukanya Samruddhi Yojna, RD, FD, and loans) for which they approached the trainers for guidance in order to avail these services. Besides, these notifications also provided reminders for repayments, savings and more. The cards came in eye catching colours and bold fonts to catch the user's attention.

> "The main objective of sending out the push cards were to engage the users with the app. Two cards were sent every week and based on the feedback collected from the users, the content of the cards were decided upon. Swadhaar is currently working on the capability of pushing the notifications daily to engage with the users."
>
> – Preeti Telang, CEO-Swadhaar

The role of the app in pushing financial literacy among less literate, less aware respondents through push cards and videos had been well received however the Swadhaar workshops and the hand holding by the on-ground trainers had also played a great role in the same.

Operational :

First reactions from pilot users on the app usage spanned the spectrum of apprehension and enthusiasm. Apprehension was around whether or not they would be able to comprehend the app interface and genuinely learn better financial management. Enthusiasm was led by the opportunity for greater learning and empowerment.

> **"**I remember when I first entered the classroom…there were posters everywhere. I felt like a student and I was excited to learn.**"**
>
> – Housewife, 38 y/o, Thane

As mentioned in the previous section, the Saathi app was inducted into the lives of the pilot users through workshops held by Swadhaar. These classroom sessions were also the users' first introduction to their trainers – who have played (and continue to play) a very critical role in app adoption. **This continuity in the human resource behind the intervention (from financial literacy training to app adoption) is also a key enabler of comfort and trust for the respondent to be able to adopt new behaviors.**

Limited prior smartphone exposure for the pilot users meant that initial challenges were not only centered around navigating a new application, but also around navigating a new device altogether.

On the other hand, independent users who already have their own phones and voluntarily chose to use the app, seemed less likely to face smartphone related issues and were focused solely on tackling the app.

New device apprehensions (mainly for pilot users) :

While the smartphone was not an alien device as such (most had seen it with other family members), the idea of **touching and tapping the screen** was a fairly new concept which took some getting used to. This was not, however, a major source of discomfort and most were able to overcome their initial apprehensions just by using the phone more frequently.

Application apprehensions (for both pilot and independent users) :

The training began with pilot users being shown how to download the app, post which user IDs and passwords were created for them. Bearing in mind that Saathi was the first digital application exposure for many, users were nervous about having to input and remember their login details. **While few wrote their login details down on pen and paper, most chose to remain 'logged in' – thereby circumventing the need to input details repeatedly**.

> **"**Ma'am (referring to the trainer) made my ID and password. I will not be able to remember the details properly so I don't log out. In case I forget and then cannot log back in it will be a big problem**"**
>
> –Housewife, 35 y/o Bhandup, Mumbai

While the initial classroom introduction helped make the comprehension of app functions easier, users tended to feel uncertain when tasked with running the app on their own – mainly **questioning whether or not they were on the right track**. Overcoming this was a matter of time – of building greater familiarity with the app, and using it more often – which helped instill the much-needed confidence to run the app on their own.

The role played by the more tech-savvy family members – mainly the young teens – is important to note in this regard. While the Swadhaar trainers were present on the ground to offer their expertise, it was the younger **generation of children that did the hand holding in their absence**. Having a familiar face around was especially helpful for users to tackle 'minor queries' like getting in and out of the app or tapping the right tab.

> **"** My daughters were always around whenever I faced a problem. They know the most about these smartphones. So whenever I was stuck, I would call them and they would say – this is how you must do it **"**
>
> – Housewife and mother of two,45 y/o, Bhandup, Mumbai

Issues faced and possibly implications :

The biggest hiccup faced by a majority of users was **intermittent network availability**. Slow or no internet connectivity prevented access to the app which meant that income or expense entries for the day (or multiple days) could not be made. Users feared that a break in their expense entry would impact their 'financial health' as reported by the app.

The current solution to the problem of connectivity involves either switching the phone off and on – an exercise which is not always successful - or simply waiting for their phones to get back on the grid. This tends to leave users feeling helpless and there was a clear sense that current solutions are not sustainable.

Implication: Perhaps the solution may lie in adding a 'work offline' feature to the app - where users can continue to input their income and expenses even without access to the network or the internet. They will need to be assured that these entries will be saved and that the app will update itself automatically as and when connectivity is restored. However, because of the low storage capacity of the smartphones currently being used to operate the app, the probability of data loss in an offline mode is high.

Another problem that arose was that of the language used. The app seems to be worded in very 'pure Hindi' – a dialect that most Saathi users are not accustomed to. These users tend to speak more 'local' Hindi which ends up making the language used in the app seem too formal. A few respondents said that pure vernacular terms like 'bachat lakshya' were not comprehensible.

Implication: Can the app be worded in easier to follow, spoken dialects that would help make it more user-friendly. **It might help to change these descriptors to simpler or spoken Hindi and Marathi terms.**

Even with these hiccups, users never felt alienated from the app. Also, the presence of the Swadhaar trainers was a huge source of comfort for all users – both pilot and independent. Not only were the trainers patient and empathetic in their hand-holding, but they also made themselves readily available – physically and over the phone – **to the extent that users had personal contact numbers of the Swadhaar trainers and could call whenever problems arose.**

Users were especially grateful for being able to ask multiple different questions and the same question multiple times – a privilege which prevented them from feeling the short end of being less tech-savvy and/or less knowledgeable about financial products. This softer touch – of not patronizing the respondents, and giving them the comfort to ask often and repeatedly about their doubts, was a key enabler in building comfort with the app, and in building their confidence through empathetic hand holding.Openness and transparency between users and trainers not only provided a system of support and encouragement but also made app adoption less intimidating and therefore easier and quicker.

PILOT: Number of entries for various loan types

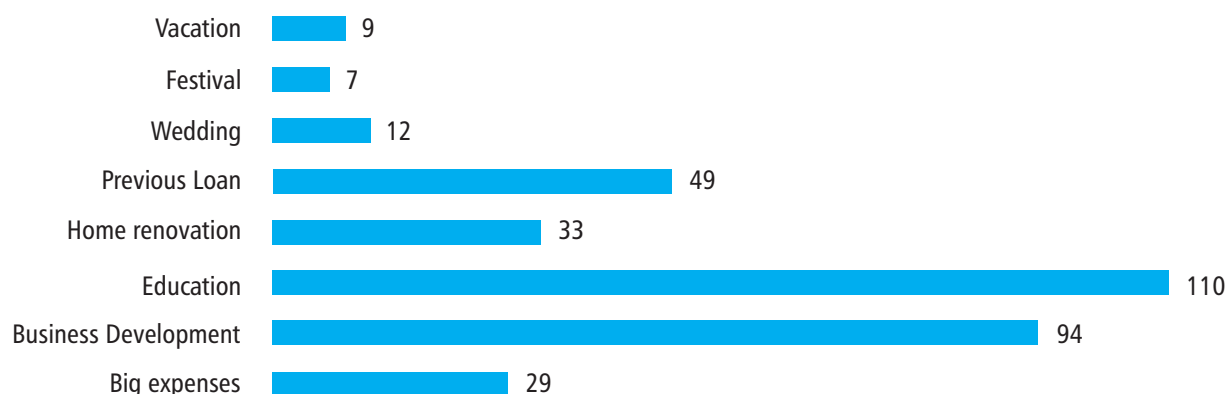| Loan Type	Value
Vacation	9
Festival	7
Wedding	12
Previous Loan	49
Home renovation	33
Education	110
Business Development	94
Big expenses	29

Figure 12: Pilot graph showing the most number of entries made for active loans (inclusive of new loans taken) against Education followed by Business. Pilot n=343 entries from the 156 users (April-Nov 2017)

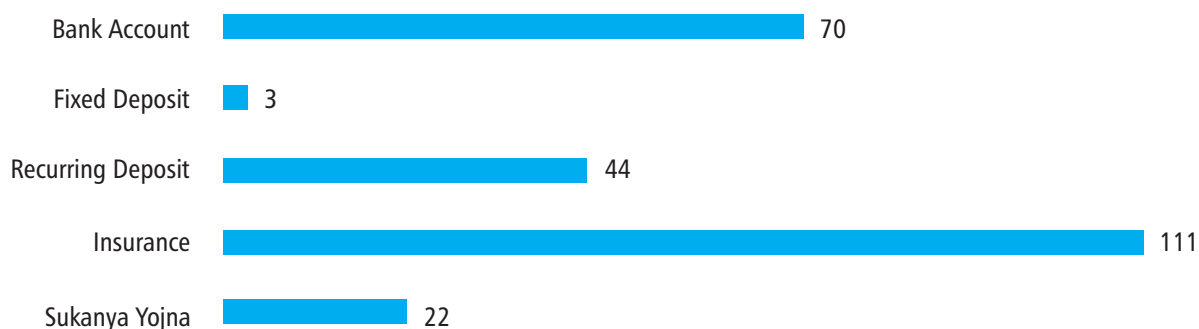## PILOT: The number of entries across different saving tools in the Saathi app

Saving Tool	Value
Bank Account	70
Fixed Deposit	3
Recurring Deposit	44
Insurance	111
Sukanya Yojna	22

Figure 13: Pilot graph showing insurance being the most popular saving tool. Pilot; n = 156 (April-Nov 2017)

> "I love sarees and I just cannot control myself when I see a nice saree. Especially when the salesmen come to the door…I can never say no to them. After using this app I have realized how much unnecessary money goes into these sarees which I don't even need.
> Now I stop myself even though it is difficult. I remind myself how much I will save if I don't spend on this."
>
> —Housewife and mother of one, 37 y/o, Thane

All in all, most users took about one month to familiarize themselves with the app and run it smoothly on their own. The first instances of successful usage tended to be times when users were able to look back at their expense sheets and change their behavior accordingly – be it in terms of spending or saving.

> "My kids ask for something or the other every evening – like chips or chocolates. And without realizing I would just buy it for them. But now I have realized how much of my money goes into those things which are not necessary. I realized how much I could actually save if I don't spend on it. So now I say no to them and give them something from home itself"
>
> – Housewife and mother of two, 45 y/o, Bhandup, Mumbai

Independent users of the Saathi app were inducted into the program by existing pilot users and on-ground trainers. The independent users already owned a phone and tended to be more tech-savvy than the pilot users. They took to the app very quickly and began meeting with the trainers too – although not as regularly as pilot users. Most of them found value in the app and its usage, and many also became advocates for the application. Positive word of mouth and a snowball effect has led to the app being downloaded 7500 times as of June 2018.

> "My husband is a driver, so he is a daily wage earner and as such it is extremely difficult to track the cash inflow and outflow into the household. But with Saathi, we have found the solution to this problem. I have used Saathi for only 3 months but I already see the difference - my savings have gone up."
>
> – Housewife, 29 y/o, Vikroli, Mumbai (independent user)

As independent users had not gone through the intensive hand-holding and training by field trainers or peer educators (compared to pilot users), some of them were not well versed with all the features of the app viz. Goal setting or Financial Literacy videos. They reported having glanced through these tabs but had not engaged in detail with any of them. A few even called the Financial Literacy videos 'hidden features' of the Saathi app because these videos do not feature as a direct tab on the main screen (and therefore did not catch their attention).

> "I was not aware of the 'Set a Goal' feature until today. This seems really interesting to me. My husband and I, are planning to get a two-wheeler, we can put it out here and can start saving up for it."
>
> – Anganwadi worker, 27 y/o, Bhandup, Mumbai (Independent user)

The number of times each tab in the app was accessed

Loan : 342   Goal : 201
Savings : 2,219
Income : 5,583
Insurance : 232
Expense : 68,347

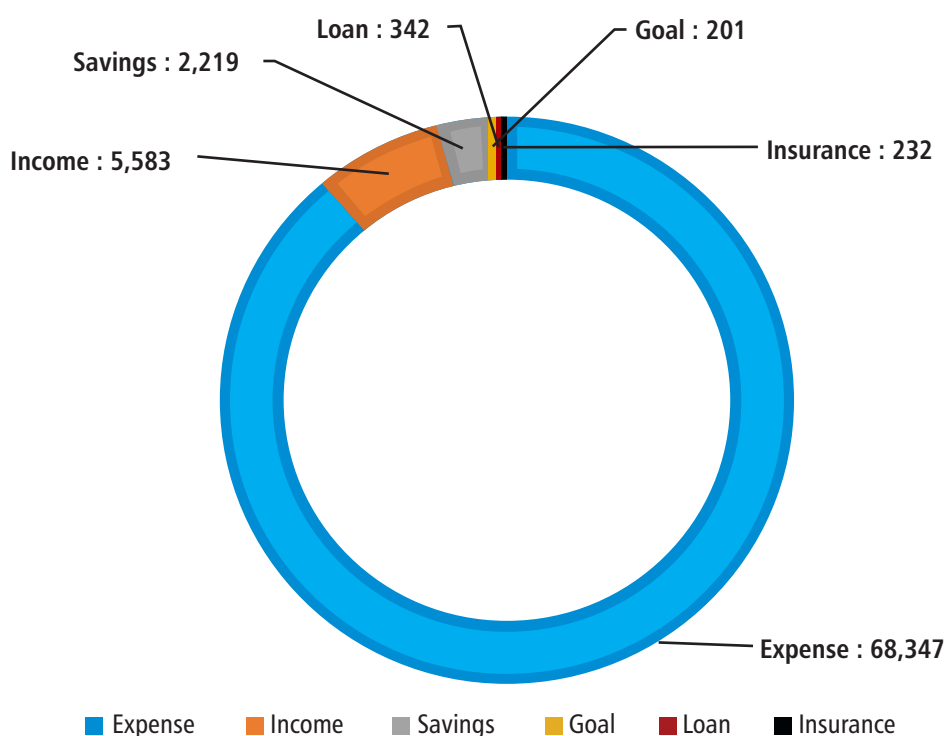Legend: Expense · Income · Savings · Goal · Loan · Insurance

Figure 14: Data collected from the app during the pilot phase indicated that the expense tab was the most commonly used, followed by the income tab. The 'goal' tab was used the least. n=156

Most used feature of the Saathi app	Reasons for popularity	Learnings (as pointed out by users)
Expense entry	• The primary function of the app • Everyday filling of expenses after taking stock of cash outflows from every member of the family. • Done under several heads as specified in the app as per the date the expenses were incurred	• Further breaking of expense heads - grocery, fruits and vegetables snacks, non-veg – was seen as very helpful for a better understanding of cash outflows
Income entry	• Done as and when there is cash inflow into the household; self or husband's or any other source such as rent, other sporadic incomes.	• Income of all members (esp. husband, elders in the family) if entered – offers a more accurate picture of the household finances • Helps align all family members on the true financial situation through communication and information
Push notifications (cards)	• These cards appear on the lock screen containing bold messages and open up on a single touch. • Allow for quick reading with visuals • All users said they go through new notification cards as and when they appear. • Diverse topics are covered ranging from financial literacy content to dengue prevention, to recipes. Many said they find this interesting.	• Wanting to gain more information and learnings such as - how to use Paytm, on running home-based businesses, newer income-generating skills and so on through the app
Summary	• Often visited to check how much they have spent on particular categories to figure out where they have incurred maximum expenses, or saved the most. • Gives them more accountability and a stronger hold over the household expenses	• An indication of high expense categories would be helpful • An indication of higher than usual expenses in any of the categories getting called out to further improve budget management practices.

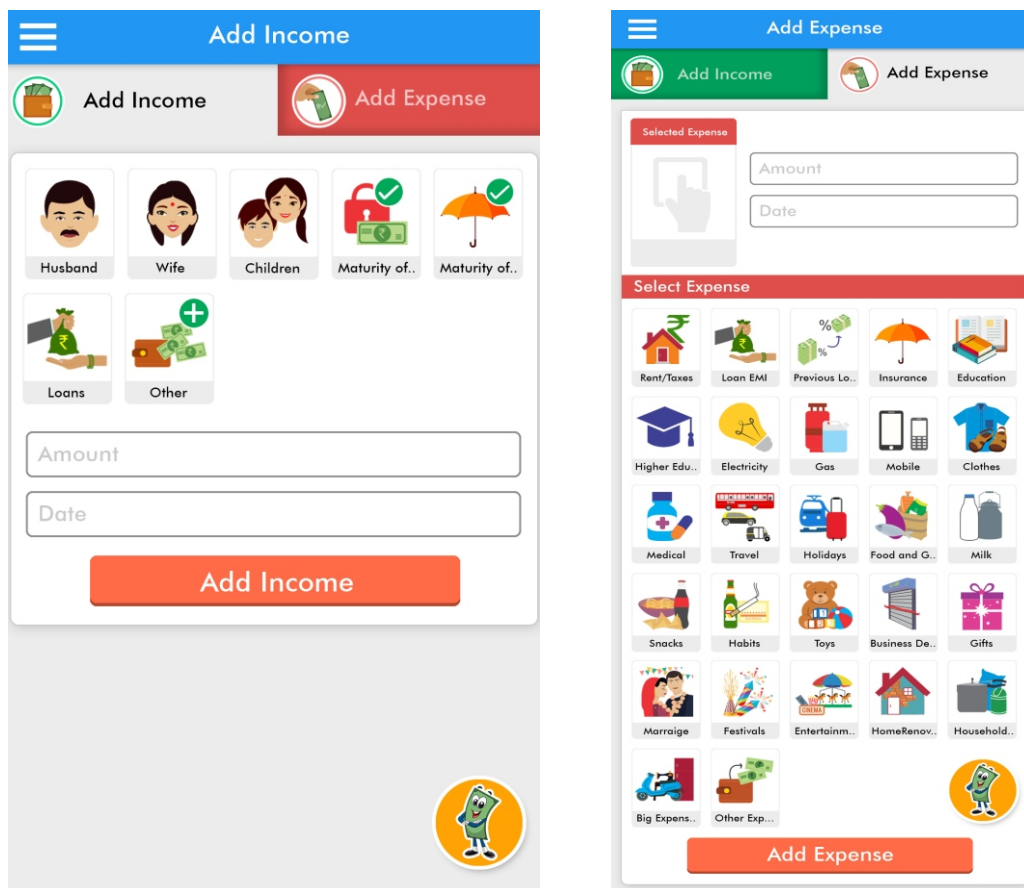| Most used feature of the Saathi app	Reasons for popularity	Learnings (as pointed out by users)
Financial Health	• Simple and engrossing • Visual-only interface - an icon of a metre with emoticons and messages make it engaging- a greener colour with a smiling face boosts their confidence or a red colourwith a sad face encourages them to be savvier and watch out for their extra expenses	• Suggestions given by the app on how to better their financial health, summary reading, and highlighting the high expenses of the month could be helpful

Figure 15: L- shows the 'income' entry interface as it appears on the app; R-shows the 'expense' entry interface of the app

Least used feature of the Saathi app	Reasons for low usage	Learnings (as pointed out by users)
Financial Literacy Videos	• The tab contains links to YouTube videos which often take time to buffer and play, and are especially difficult to watch with weak network connectivity	• Diversions to YouTube seen as wasteful or time-consuming, buffering of videos was a pain point. • Not a single click operation – called out as a hidden feature, not many were aware of it
Goal	• A feature that most were unable to see any immediate utility or action-ability of.	• Not able to comprehend the importance of this feature • Many felt it was too far-fetched to think of goals • Some had goals in mind, but unable to make savings against these.
Loan	• Newer loan entries were made as per instruction of trainers, but previous loans are not inputted and in many cases, the women are not aware of major loans taken by the husband or the family.	• The utility of making loan entries in the app is not clear to many. • Cultural barriers preventing women from getting visibility into loans are an issue.
Insurance	• Most users and their families have not taken insurance - as such the entries under this tab were limited. • However, a large number of users later registered for the government insurance scheme after learning about it from Swadhaar workshops and Saathi app	• The utility of making insurance entries in the app is not clear to many

Behavioral :

The change in behaviour for the women who participated in the pilot as well as the independent users have been significant. Conscious as well as unconscious changes have taken place in their knowledge levels, attitudes and behaviours.

Firstly, owning a smartphone due to the program has led to changes in their usage of, and transactions with, the phone. The smartphone has opened up to them the world of the internet, digital applications, and interactive user experiences.

There was the initial fear of using a new technology, clubbed with the excitement of discovering a new world. Few of them turned for help to their husbands, while the majority of them took help from their kids or peer educators to build familiarity and confidence in using the phone and the app.

Besides using the prescribed application, these women explored WhatsApp for communication, Google search for their kids' projects, and YouTube, Candy crush and Gaana for recreation.

Private and uninterrupted time for themselves with the phone, however limited, was a new and empowering experience for them. Earlier their smartphone experiences were limited to a shared device that they had access to on a highly interrupted, non-private basis – diluted by parallel chores and conversations. Now both the smartphone and the time spent on it was theirs alone. They learned how to steal time from their heavy routines, for themselves. The Saathi app, therefore, enabled for them, the permission to use a smartphone privately for the first time – a liberating and empowering experience.

Secondly, the intended exchange they had was with the Swadhaar Saathi app. The app gave women a money manager at their fingertips. They had to input their income as well as expenditure. This fundamentally changed not only their attitudes to transactions but also their behavior with money in hand.

Their behavior changed in terms of starting to keep a close eye on the money they spent as well as a careful tracking of all sources of income, no matter how meagre or sporadic. They tended to become more cautious about all incoming money flows and considered these as important additions to the kitty (as opposed to their reactions prior to the knowledge gained from the app – where sporadic incomes were seen as bonuses and spent callously.

> **"** I input every penny I earn, not only my own salary but also income from secondary sources such as money in exchange of old books, newspapers furniture etc. And also take account of every penny that flows out of my pockets. **"**
>
> — Home-run business owner, 36 y/o, Mulund, Mumbai

In order to input expenses, the women tracked their daily expenses carefully and ensured that these were fed into the app at the end of each day. This practice of documenting expenses under specific expense heads was something that the majority of the women had never done in the past. Even for the minority of women who had previously maintained a book of everyday expenses, the experience of being able to track all their expenses in one place, cumulatively added, indexed and summarized – was new and empowering. A summary of income and expenses and visual cues in the form of separate icons for each expense head allowed for a far superior and deeper engagement with their finances.

A mother and daughter makes the entry of their daily expenses on the Saathi app.

This new knowledge made the women more careful about all their expenditures, from routine to impulse purchases, with a heightened consciousness of how each expense would impact the overall financial health of the household at any given point of time.

A continuous visual reminder of the expenditure made them think consciously about trade-offs - to save money, to reduce expenditure, and to make the most of their existing resources.

> "With this application, I started inputting everyday expenses and began tracking them. I used to initially make bread based snacks like vadapav, missal for breakfast or snacks. Eventually, I realized that cheaper options exist such as poha for example. Expenses for poha are lesser since it is a wholesome meal and feeds more stomachs as opposed to individual helpings of bread-based snacks. I made subsequent changes in my cooking and snacking habits moving forward."
>
> - Housewife and mother of three, 38 y/o, Thane

> "I track my expenses and items monthly. Depending on monthly entries, if I bought a gas cylinder today, how long does it sustain us? It also helps me to see which item has gotten over quickly and why? I also end up using it as a reminder of my money needs depending on the duration the item sustains us; for example an EMI, gas cylinder,"
>
> - Housewife, 35 y/o, Bhandup, Mumbai

Even when users did not have a running network or internet connection, they got into the habit of immediately jotting down their expenses in their budget diaries to make sure they don't miss tracking and entering every single expense.

Finally, for the majority of the respondents, the introduction and recurring usage of the Saathi app gave the woman an added role in the family (one that has not traditionally been permitted) and an enhanced stature in the household.

These women were now seen as an important resource in the family – one who is taking care of tracking and managing expenses, and a gatekeeper of the funds in the household. This not only was a huge confidence booster, but also a significant expansion in her role and identity in the home. Having a say in household finances not only gives her an important voice in the home but also serves to help her be seen as a more equal member of the family. This provides her with an important pathway to somewhat escape **the stifling chains of domesticity and patriarchal control** that limit the lives of women in most Indian homes.

The app also gave the family an opportunity to come together and collaborate on critical subjects– savings and financial health - that were not previously discussed as openly. With the women accountable for recording and inputting expenses, the family also got involved itself in the effort to track expenditure accurately every day. This created a new information flow and dynamics in the household. The collective effort to manage finances through the actions of the woman of the household was for her an affirmation of her growing stature and importance in the home.

> " I heard about the Saathi app from my friend and was very intrigued by it. I thought I might as well try it, as it is about managing money. My friend taught me the basics of the app and whatever I did not understand the Swadhaar trainers explained to me. After a few months of using it, my whole family is involved - smy husband and daughter remember all their expenses and make sure I input it. My daughter has bought a piggy bank and saves money from her pocket money. She also bought me a gift for my birthday from the saved money. "
>
> – Housewife and mother of two, 33 y/o, Vikroli, Mumbai (independent user)

Importantly addressing women with this app, helps ensure that the awareness and skills of money management get passed down to the next generation – because the mother is primary care giver who spends maximum time with the children.

> " My daughter has imbibed the habit of saving and has bought a piggybank for herself. She now saves a proportion of the money she takes from her parents. "
>
> – Housewife, 29 y/o, Bhandup, Mumbai

Majority of the users reported feeling a significant expansion in their financial knowledge. Most said that they now find themselves talking to their peers and relatives about the best practices, schemes, and ways to save money – a new discussion point, one that makes them feel modern, empowered and with a heightened sense of agency and control of their destiny. Majority of them reported having inducted their relatives and/or neighbours into the program through advocacy of the application, and its many features and benefits.

> " I understood the need of the hour! We needed to save for our kid's education. When the Swadhaar trainers explained the concept of an RD to me, I convinced my husband and family members of the benefits of the long-term saving and opened one for 10 years. I told my husband just forget about that money for a few years, it will come back to us, when we need it. I also made my brother in our village understand the importance of saving in a RD. I made him open one. "
>
> – Housewife, 27 y/o, Bhandup, Mumbai

Users of Saathi app with their trainer after completion of a successful app-learning session.

Summary of Findings:

1. Women users of the app tended to track their personal incomes (if any) and / or money handed to them every month by their husbands to run the household. While **only few** women had access to details of the husband's entire income or the income (if any) of their in-laws and any other earning family members, it is important to note that just the act of being able to track and manage the money under their purview **- no matter how small -** was enough to start changing the paradigm of their self-perception and how they are perceived by others.

2. The various expense heads under which cash outflows are currently getting recorded in the app are seen to be insufficient by most of the users. They would benefit from **a more granular set of expense heads** to track their expenses against. For example: Food and Grocery is a single tab, the monthly kirana items, vegetables, fruits, meat and fish; **all go together into the same tab**. This makes it difficult for them to differentiate the amount spent on monthly grocery items versus say vegetables purchased on daily basis. Similarly, a separate tab for non-vegetarian food items consumed, which is infrequent (mostly on the weekends, considered a treat by most) was deemed necessary to keep a track on money spent on such indulgences.

3. Some users found the use of pure or academic vernacular terms in Hindi or Marathi in the app problematic. For example 'bachat ke lakshya', 'arthiksthiti', 'saptahik' were all words that were hard to comprehend or relate to, which resulted in alienating them, inhibiting an exploration of those features of the app.

4. Initially users had issues remembering the passwords and feared getting logged out of the app by mistake. But once, they understood that the app does not require to be logged in to every time it is used, they were confident about operating it, thereby overcoming their fears.

5. The most important catalysts in the successful usage and utility of the app were the on-ground trainers who hand held the users throughout the pilot period, via face to face interactions as well as telephonic conversations.

6. All drop-outs from the project were because of either lost phones or defunct phones which led them to discontinue using the app. Financial constraints make it prohibitive for them to buy new phones.

7. Most users faced network issues and the online nature of the app often prevented them from making regular entries. An offline entry feature would greatly help enable access to the app when network access is not possible, and provide assurance around the automatic update of entries made when offline once they are back on the network.

8. All users reported having learnt about banking and formal financial instruments through Swadhaar workshops. They acknowledged the role of the app in helping them develop a nuanced understanding of such tools and instruments through various financial literacy videos and push cards.

9. Easy one-click operations went down the best with this user group; not only because it required lesser time and effort but also because bite sized operations were most easily comprehended by them.

10. The videos under the financial literacy tab were played through YouTube. Most users reported facing issues in playing these videos because of low network connectivity. A few also said that the videos were time consuming and expressed their desire to have such important learning packaged in shorter-duration or bite-sized formats instead.

11. The users were eager to receive more information about financial products through the app. While they expressed an interest in learning more about using new conveniences such as Paytm, online shopping etc. – there exist significant mental barriers that prevent them from doing so at present.

12. Apart from financial products and schemes, they also expressed a desire to learn about new skills and new earning opportunities for themselves and their children through the app.

13 The app inducted many of its users to the formal financial system through information, education and communication. This has built their confidence in handling financial matters in their household – to the extent that many now act as advisers in their communities about not just household budget management but also on various financial schemes and products.

14. The regular accounting of cash inflows and outflows not only resulted in bringing about behavioral changes for its immediate users, but also has trickled down to their children, who (according to their mothers) are displaying greater accountability when it comes to expenses, and greater responsibility when it comes to tracking their allowances or piggy banks.

15. The app brought the family together around the important topic of money management and savings - topics that are at the core of improving the living conditions of these financially stressed households. It helped inculcate improved knowledge and behavior around money matters. Most importantly, the app ensured that the woman of the house is included in these conversations, instead of being left out - as has historically been the case. It allowed her to showcase her skills and potential outside of stereotypical domestic drudgery (e.g. domains such as cooking and cleaning), in an intellectual domain hitherto inaccessible to her, thereby helping transform how she sees herself and is seen by others.