



Simplifying Aadhaar updates

An insight into the challenges in updating Aadhaar information and proposed solutions to simplify the process.



* Photographs courtesy: CSC e-Governance Services India Ltd

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Foreword

The Aadhaar card, India's unique identification mechanism for each individual is, at present, a part and parcel of every Indian citizen's life¹. This card serves as a valid proof of a person's identification for many essential activities, right from opening a bank account to buying and selling assets. This is because of the unique nature of the card's 12-digit number that cannot be assigned to multiple individuals. Given its nature and use, it is important for individuals to update the information in their Aadhaar card to ensure that they can easily avail these and other services. However, in a recent study, it was found that the update process is cumbersome and time-consuming. This, in turn, causes delays in access to other Aadhaar enabled services, thereby leading to heavy losses for the citizens.

With the motive of exploring solutions in this regard, CDFI conducted a study supported by the Digital Identity Research Initiative at the Indian School of Business to understand the Aadhaar information update process in detail and to provide recommendations to improve the same. This report summarises the findings of this study, which we hope serves as a guiding note for policymakers, service providers, and practitioners to pilot and scale up promising interventions in simplifying the Aadhaar update process.

We extend our immense gratitude to our advisory panel, subject matter experts, survey partners, funding partners, and research staff for being a constant source of guidance and support. We are also grateful to the participants of the study for their time and perspectives. We have expended our best efforts to ensure that the content of this report is complete and accurate; however, we assume full responsibility for any errors or shortcomings that may have inadvertently been published. We thank all our readers for reading this report and sincerely hope that you garner valuable insights from it.

Sincerely (on behalf of the study team),

Raju Velayudhan

Narendra Ghatge

Korath Mathew



Introduction

■ About the Study Partners

This study has been conducted by the Centre for Digital Financial Inclusion at IFMR (CDFI) which is a centre housed under a not-for-profit academic organization Institute for Financial Management and Research (IFMR), Chennai. CDFI is involved in developing and supporting digital innovations for social impact. This study was supported by the Digital Identity Research Initiative (DIRI)², which is a targeted and multidisciplinary research initiative based in the Indian School of Business (ISB) and is funded by the Omidyar Network India. The initiative seeks to explore pressing questions around digital identity systems with specific focus on Aadhaar.

■ Background and Objectives of the Study

On 28th January, 2009, the Planning Commission of India issued a notification to establish the Unique Identification Authority of India (UIDAI). This notification formally materialised on 12th July 2016 when the Aadhaar Act came into effect³. The purpose of introducing UIDAI was to ensure that every citizen holds a 12-digit unique identification number (also known as “Aadhaar”) that provides universal identity to every Indian resident. Aadhaar is known for being the world’s largest biometric identification system; World Bank’s former Chief Economist, Dr. Paul Romer once referred to it as the “most sophisticated ID programme in the world”⁴.

95% of Indians hold Aadhaar cards, according to the “State of Aadhaar” report- also supported by the Omidyar Network based on information collected from 1,67,000 Indians⁵. A very important aspect highlighted in this report is that 33% of the participants faced difficulties in updating their Aadhaar information. Despite continued efforts by the UIDAI to simplify such procedures, certain challenges persist. Given that around 8 million Aadhaar updates happen every year and people heavily rely on Aadhaar enabled services, simplifying the update process is crucial.

“Aadhaar is the most sophisticated ID programme in the world”

- Dr. Paul Romer

DIRI and CDFI, therefore, conducted a study to understand and break down the Aadhaar update process in detail. The objectives of this study have been listed below:

- To collect information on the **perception and experiences of residents** who tried to perform an update related to demographic or biometric information associated with their Aadhaar during the last 6 to 8 months.
- To understand the **steps and procedures involved in the process of updating information** and documents required for the same.
- To get insights on the **ease of updating** information, **ease of access to the location** where the update happens, and extent of **awareness/ knowledge** among residents on the procedure.
- To identify **gaps and challenges** and come up with **recommendations** to improve the Aadhaar information update experience.



Approach and Methodology

■ Plan of Action

As mentioned in the foreword, the driving force behind this study is the intention to ease the process of updating Aadhaar details. The envisaged goal and related activities have been laid down in the plan of action given below:

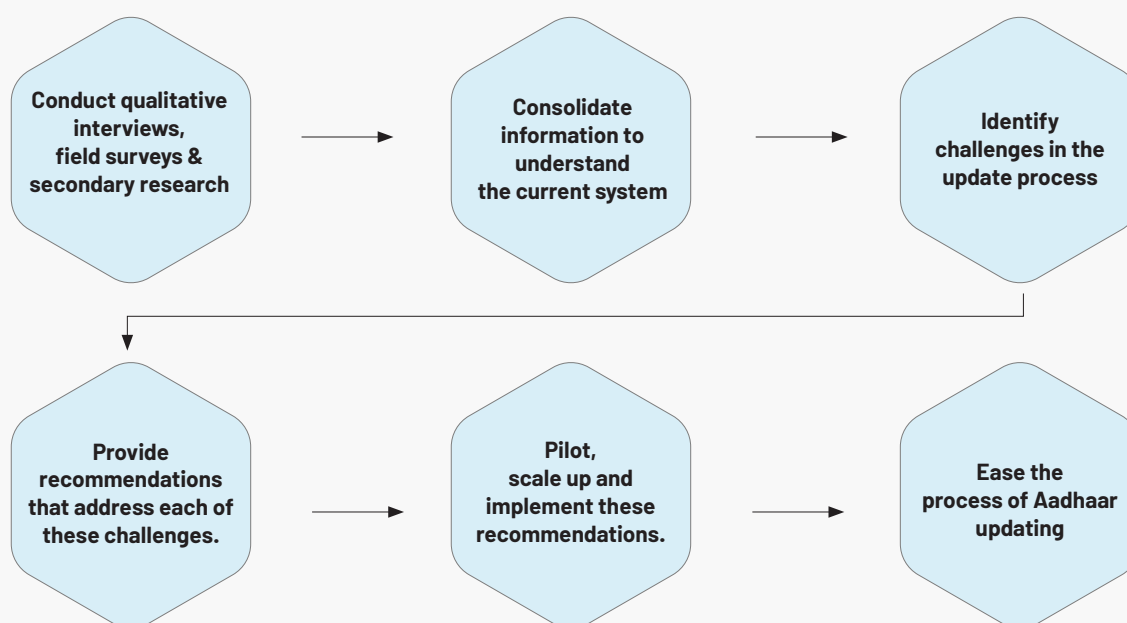


Figure 1: Approach & Methodology of the Study

The entire study was conducted in two stages :

1. A qualitative study which involved stakeholder interviews and consultations
2. A field survey with participants across 5 states (Maharashtra, Kerala, Rajasthan, Tripura, Uttar Pradesh).

A sample of 68 key informants were identified and interviewed for the qualitative study. This included residents who have recently experienced the Aadhaar update process, government staff who run the Aadhaar update centres and officials who have worked / are working in the Aadhaar update ecosystem. A pre-defined questionnaire was used to guide conversations with stakeholders. This included questions on the stages involved in the Aadhaar update process, steps and activities in each stage, knowledge / level of awareness of the stakeholders and the ease of executing these steps including ease of access to required documents. Despite having a structured questionnaire, the focus of these

interviews was more on understanding their views and experiences and less on obtaining information for statistical analysis.

The follow-up (quantitative) study was conducted with 1000 participants who were residents from Maharashtra, Kerala, Rajasthan, Tripura and Uttar Pradesh. In the total sample, 70% of the respondents were from rural areas and 30% of them were from urban areas in the states. This field study complemented the findings from the qualitative study and helped revalidate some of the preliminary findings from the stakeholder interviews.

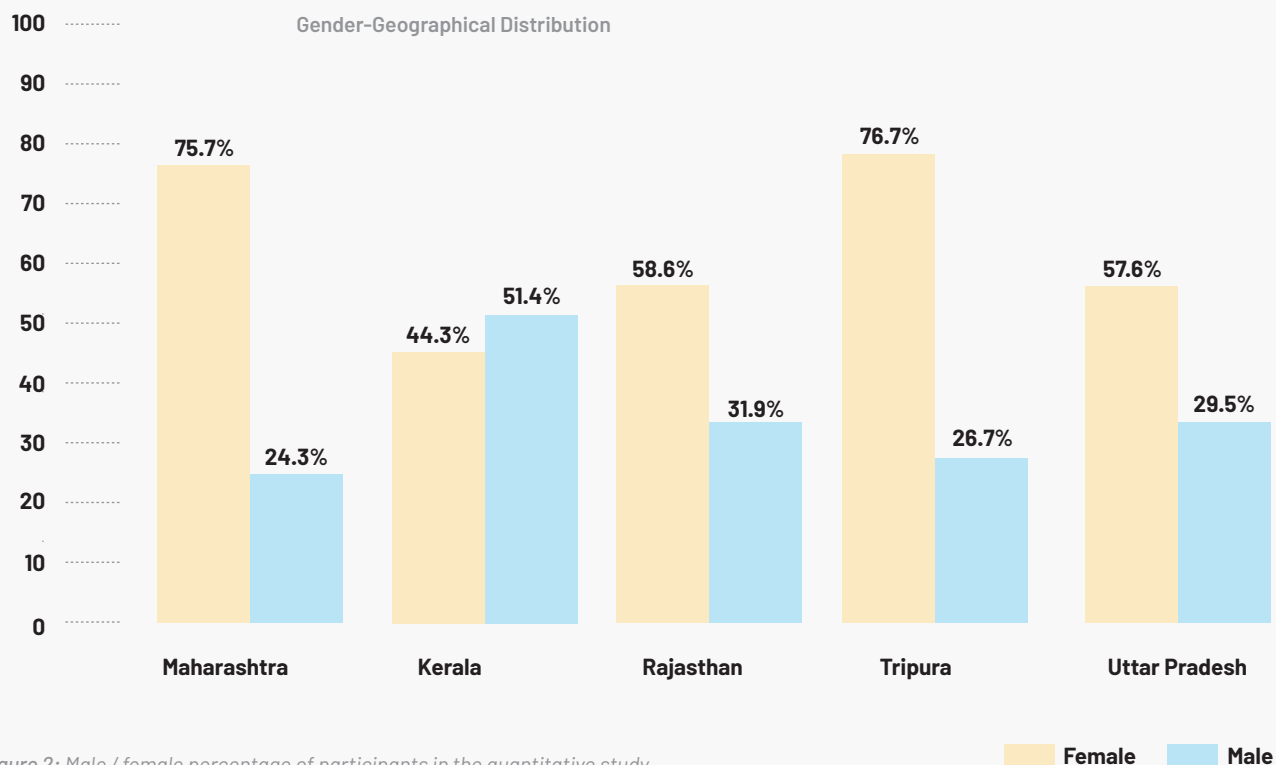


Figure 2: Male / female percentage of participants in the quantitative study

N=1000



Study Personnel

■ Study Personnel

The study was conducted under the expert guidance of Mr. Krishnan Dharmarajan (CDFI), Mr. Lavesb Agarwal (Assistant Director), Mr. Rajendra Thakur (Senior Programme Manager), Mr. Anuj Bhati (Senior Manager) and Ms. Neharika Rajagopalan (Independent Consultant) from CDFI provided review and editing support for this report. The study team consisted of Lt. Col. Korath Mathew (R), Mr. Raju Velayudhan, Mr. Narendra Ghate, Mr. Sanjith Sundaram, Mr. Kulwant Singh, Mr. Sunish Sugathan They were supported by Ms. Deepanshi Bhardwaj and Ms. Divya Kunwar of DIRI. The team is also grateful to Bhagwan Chowdhry and S. Anas Ahmed for their helpful comments and suggestions.



Enabling Ecosystem and Stages in the Update Process

■ Enabling Ecosystem

In order to update information, citizens can either use assisted or self-service modes. The infographic given below depicts the different modes available.

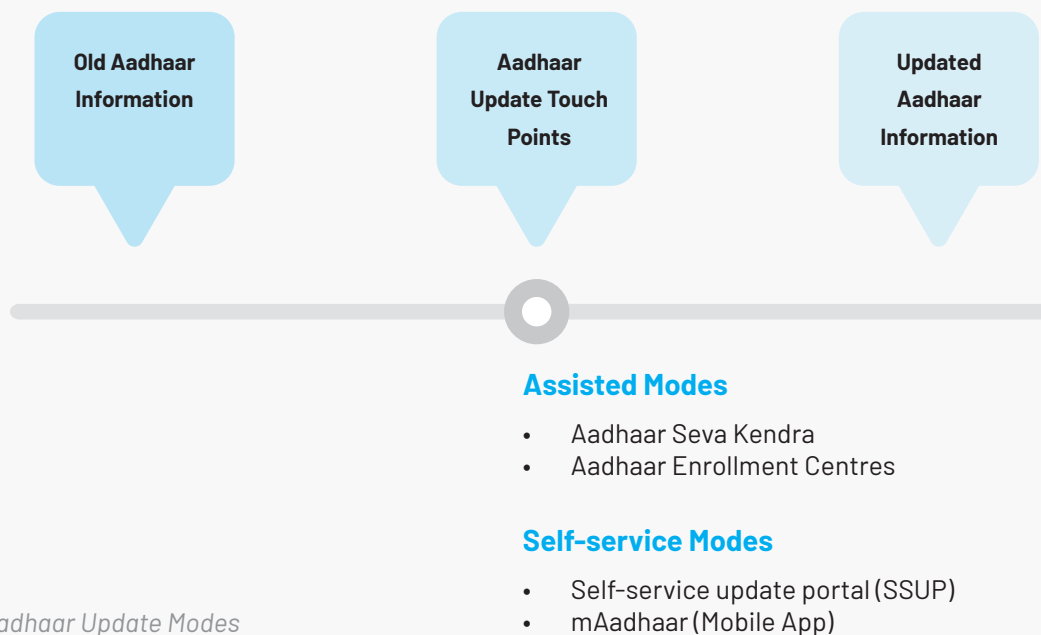


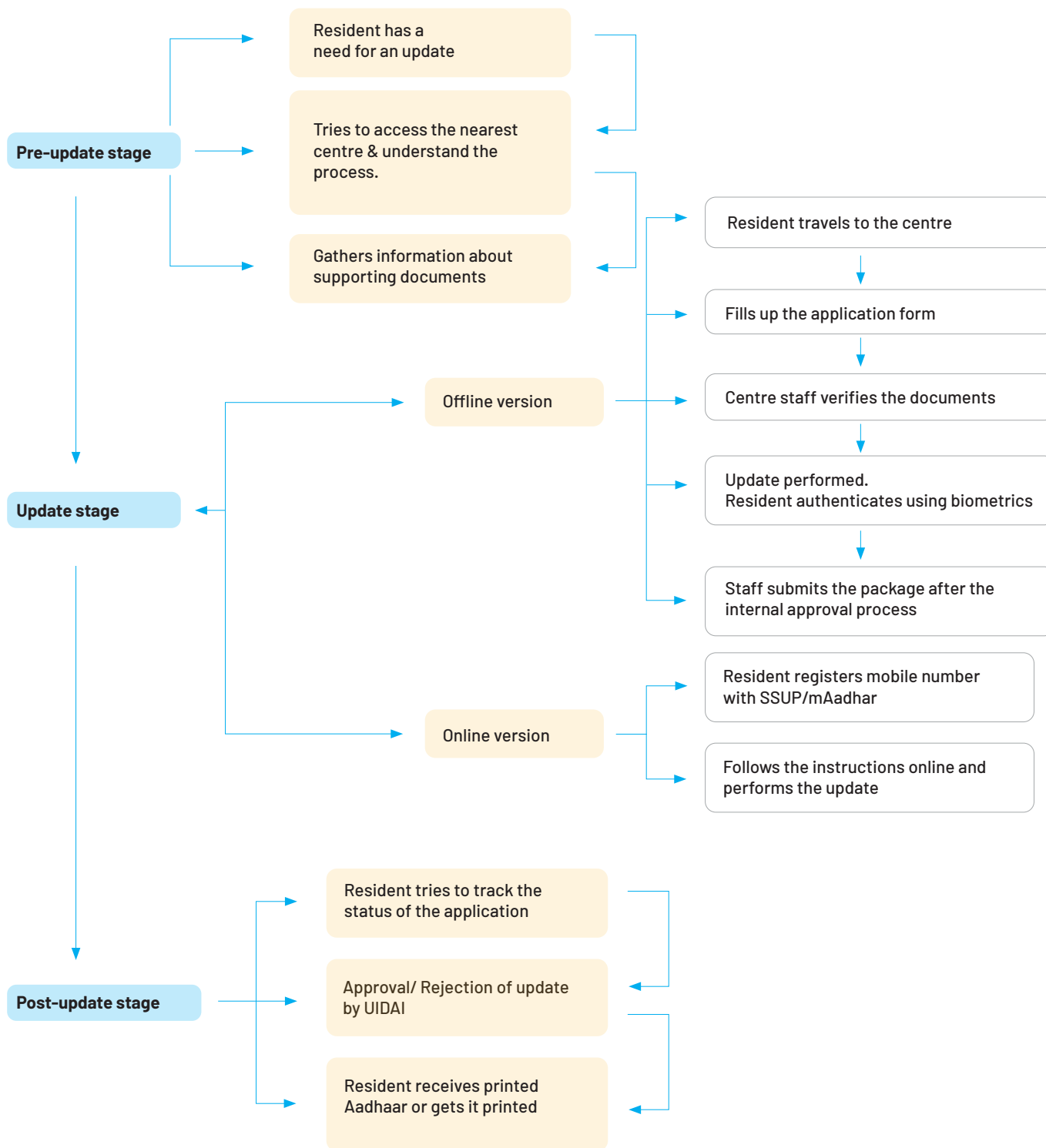
Figure 3: Aadhaar Update Modes

UIDAI runs 41 Aadhaar Seva Kendra centres across the country. A more popular, assisted mode of updating information is through Aadhaar Enrolment Centres. There are 40,000+ such registered centres. Both these assisted modes have facilities for updating demographic and biometric information. The self-service update portal which can be accessed 24X7 allows residents to update their Name, Date of Birth, Gender, Address and Language. The mAadhaar is an android application that can be used only to update one's address⁶. In order to access such internet-enabled services, a registered mobile number is mandatory. Out of all the modes listed above, Aadhaar Enrolment Centres are the ones that are most widely used. The table given below lists each stakeholder in the Aadhaar ecosystem and their role.

Institution	Stakeholders	Description
UIDAI Regional Offices	UIDAI Regional Officer	It is the responsibility of the UIDAI (the apex Aadhaar institution in the country) to ensure quality of work related to Aadhaar enrolment and updates.
Registrar Office	Registrar Nodal Officer	Registrars appointed by UIDAI are officers who are responsible for field level execution, monitoring, and auditing enrolment and update of Aadhaar information in centres under them.
Enrolment Agencies	Nodal Officer	UIDAI follows an open Request for Empanelment (FRE) process through which enrolling agencies are empanelled into the system. These agencies have access to the Central Identities Data Repository and are responsible for collecting demographic and biometric information of individuals during the enrolment and update process by engaging certified Operators / Supervisors. Nodal officers are responsible for efficient and effective delivery of these services.
Enrolment Centres	Supervisor Verifier Operator	In coordination with the Registrars, the Enrolment Agencies can also set up Enrolment Centres at locations easily accessible to the residents. These centres have enrolment supervisors, who are certified personnel employed by the Enrolment Agencies to operate and manage the enrolment centres. In addition to this, Registrars appoint staff to verify documents at these centres and they are known as Verifiers. The enrolment Operators take care of the initial enrolment and update activities.

Table 1: Stakeholders in the Aadhaar ecosystem

Given that the ecosystem has various stakeholders to guide people in the update process, it is important to get an insight into the stages involved in the update process. The process can be broadly divided into 3 stages – the pre-update stage, the update stage and the post update stage. The diagram given below details the steps involved in each of these stages⁷.





The workflow inside the centre is as follows:⁶

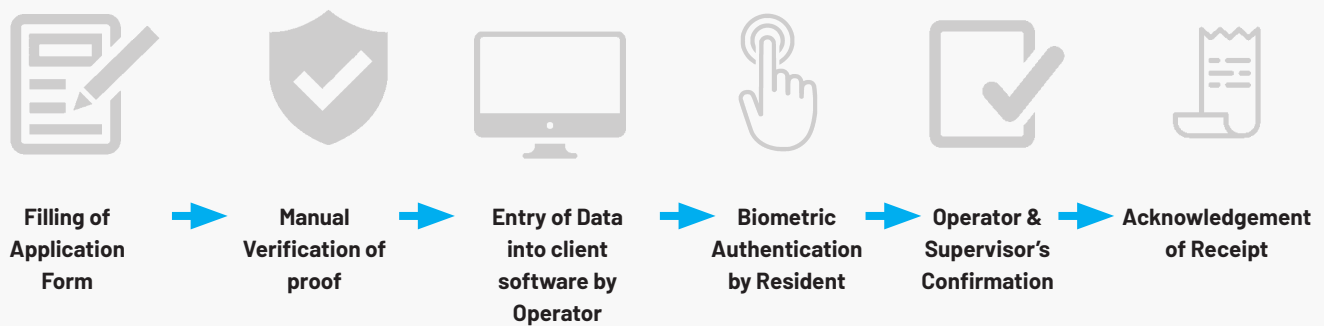


Figure 4: Update process inside centre



Findings from the study

■ Reasons for the Aadhaar update

Aadhaar information updates might be performed due to several reasons; however, before probing these, understanding which major categories of information are associated with the Aadhaar is essential:

- **Demographic updates** - Details such as Name, Address, Date of Birth/Age, Gender, Mobile Number, Email Address, Relationship Status can be categorised as demographic information. Usually, updates of demographic information occur on account of events such as marriage, change of address, etc.
- **Biometric information update** - This includes Iris, Finger Prints and Facial Photograph of the individual, of which fingerprint / iris data is used for authentication of the person's original identity.

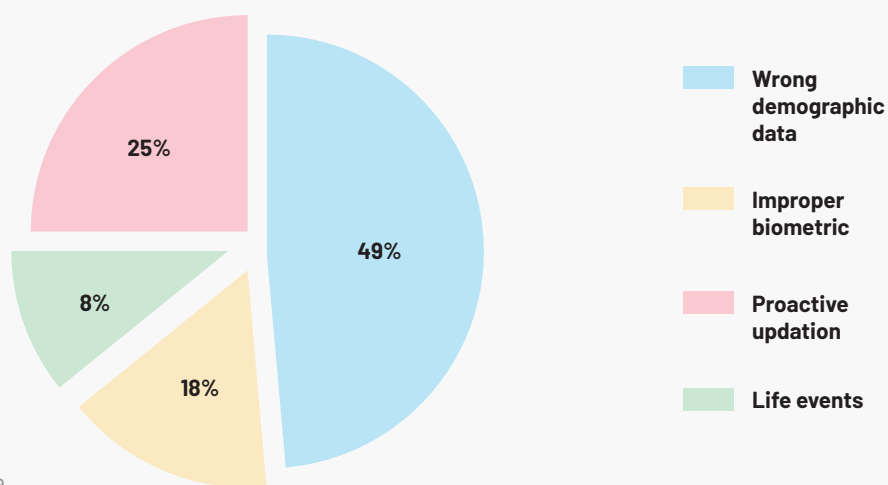


Figure 5: Percentage share of reasons for Aadhaar update

N=1000

Based on the graph given above, it is inferred that errors in demographic and bio-metric information are major reasons for the update. According to the State of Aadhaar (SOA) 2019 report, 15% of people who were surveyed have an error in their linked mobile phone number and 4% of Aadhaar holders have an error on their card. In such cases, updating is done immediately only when the resident voluntarily provides information by raising a request to correct such errors, even without statutory requirements mandating this action. For instance, in Haridwar, around 800 people had the same birthdays on their Aadhaar card⁸.

■ Accessing information and touch points

Once residents decide to update information on their Aadhaar cards, they tend to approach various sources to understand the process and location of the centre where the update can be performed.

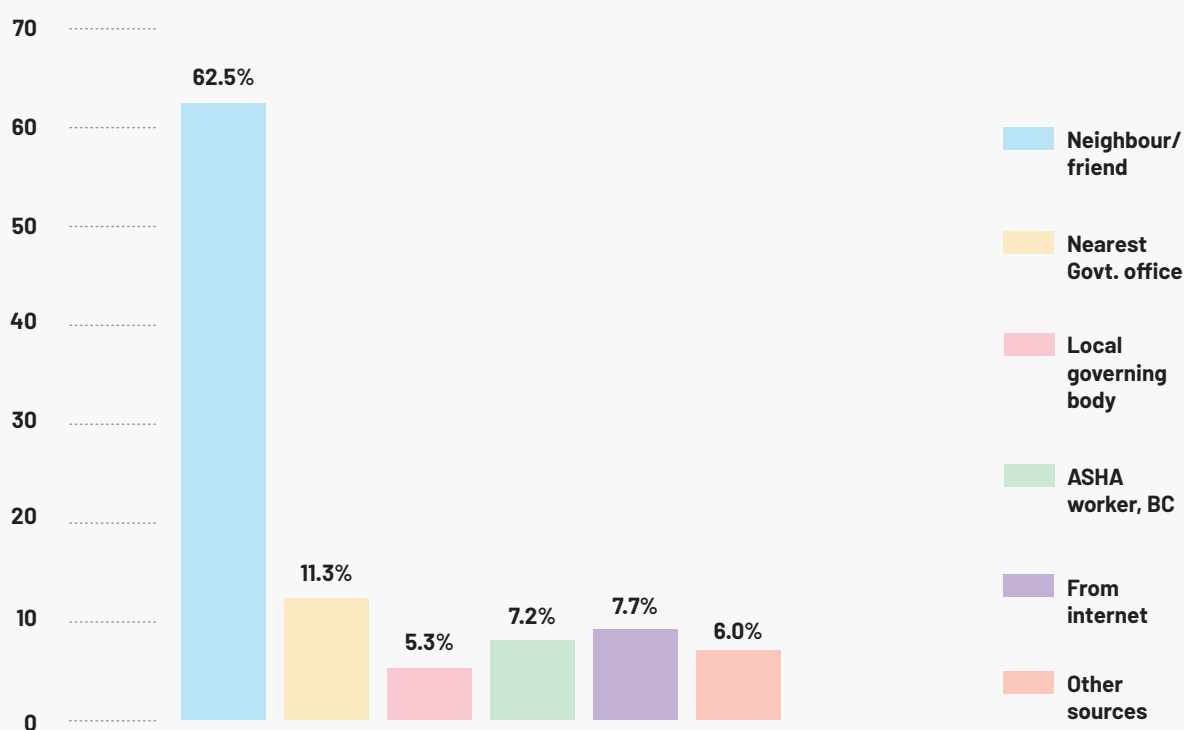


Figure 6: Percentage share of sources of information about nearest centre

N=1000

The field survey indicates that residents seek information from sources that they have immediate access to. This is evident from the graph above which shows that 62.5% of the survey respondents reach out to neighbours, friends and relatives to get information on how to perform an Aadhaar update. The other sources that they reach out to include government offices, accredited social health activist (ASHA) workers, and the internet.

Despite seeking information on the nearest update centre from multiple sources, residents opine that authentic information on the update process can be obtained only from the update centres. The graph below shows sources that majority of residents reach out to update centres for information on the update process.

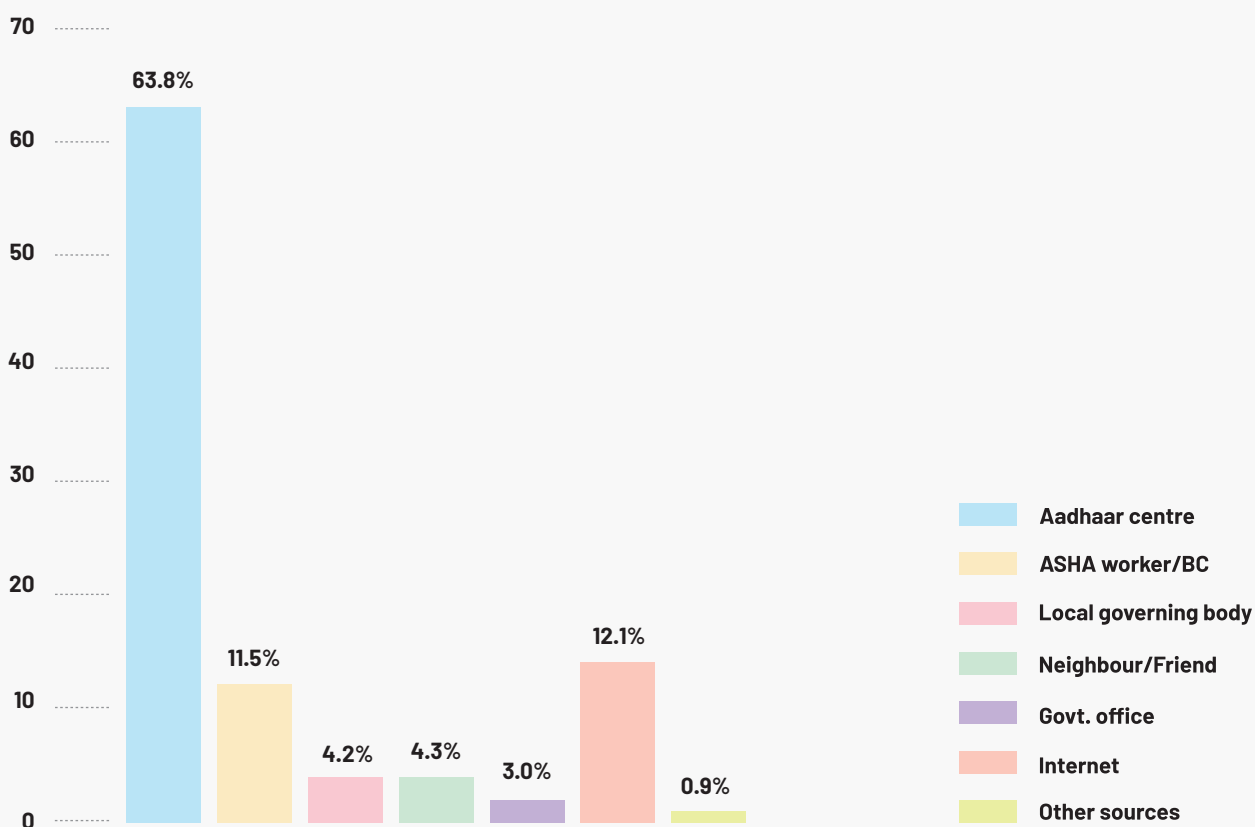


Figure 7: Percentage share of sources of information about the update process

N=1000

Aside from these, qualitative interviews revealed some key aspects on the experience and perception of residents while they accessed information, as below:

- **Increased reliability on centres:** In general, many residents feel that they can obtain accurate and up-to-date information on how to perform the update only from the centre. Hence, they visit the centre to seek information and they trust and follow the guidance provided by the centre staff. For this reason, any misinformation or lack of details given by the staff may result in further visits by the resident to complete the transaction.

- **Preference for physical interaction:** Even though some of the centres have put up posters or notices inside the centres with information that is relevant for the update, **residents prefer to talk to the centre staff and get first-hand information from them.** This necessitates that centres distribute their time and effort between people seeking information on the process and those who come to perform the actual update.
- **Phone calls preferred for initial queries:** Residents who use the internet regularly gather initial information related to the documents and updates from Google/UIDAI's website. If contact numbers are available, many of them prefer to contact the centre by phone before they visit the centre. However, **information on centres, their addresses, and other details are not updated regularly on online platforms.** The centres, especially those in urban areas, whose phone numbers are accurate, receive calls seeking information about the update process. This leads to a reduced number of people visiting the centre seeking information.
- **Challenges in using UIDAI website:** Residents who used UIDAI's website to obtain information encountered a few challenges, which included:

Challenges in navigating website

- Overwhelming lists of menus and pages
- Difficulties in identifying the required information

Lack of updated information

- Some residents felt that information on website / mAadhaar app was not up to date

Language-related challenges

- The user can switch between languages while looking for information. This doesn't work for all the pages and users who don't know English face challenges.

Irregularity in chatbot availability

- A chatbot is available on the website, but only in English and not all the time, leading to users relying on information from centres.

Figure 8: Challenges in using UIDAI website

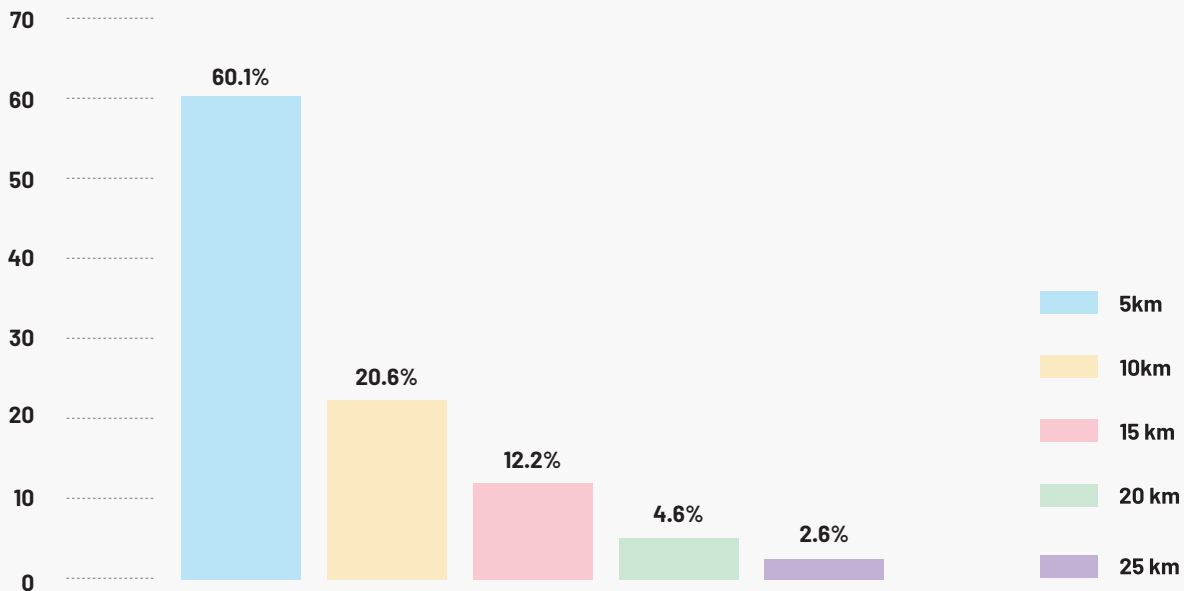


Figure 9: Percentage share of residents living near / far away from nearest Aadhaar update centres

N=1000

In the field study, when asked about the distance to the nearest Aadhaar update centre, close to 40% of the respondents revealed that they had to travel for 10 km or more. Residents often postponed the updates by about 2 weeks because of the distance that they had to travel to access the centre. Other challenges associated with accessing the centre are: locating the specific room or building that the centre is based in; proximity issues for rural residents who rely on day wages and hence may have to spend a day's wage on each visit to the centre; timings not matching for office-goers who would prefer going before / after normal business hours to complete their updates; and more than one visit needed to obtain information, perform the update, and know the status.



Soumya Tandi (26yrs, Orissa), wanted to update her name as per his 10th certificate for availing scholarship during his admission. As the nearby private centers were closed, he had to travel from his village in Titilagarh to Bhawanipatna city's SBI branch for the update which is approximately 50 km away. ***"At the center I witnessed a pregnant woman who also came from very far by bus and was waiting for her turn. People kept filling and submitting their application forms and finally this woman's turn was 53. As the bank was only dealing with 50 applications that day her application was on hold for a very long period of time."***



■ Experience inside the centre

Crowd Management

Given that residents rely heavily on Aadhaar update centres for information and completion of updates, centres tend to be crowded. Another contributing factor is that people are not aware of the appointment facility at the centres, through which they can pre-book their slots online, either through the UIDAI website or through the common service centres which offer these services. Moreover, the interviews also revealed that most residents aware of this facility did not take an appointment before visiting the centre.

Most residents feel that improper queue management and lack of adequate seating arrangements are major reasons for the crowd. Residents who visited the centre more than three times also mentioned repeated visits to the centre were on account of the crowd that generally prevailed in these centres.

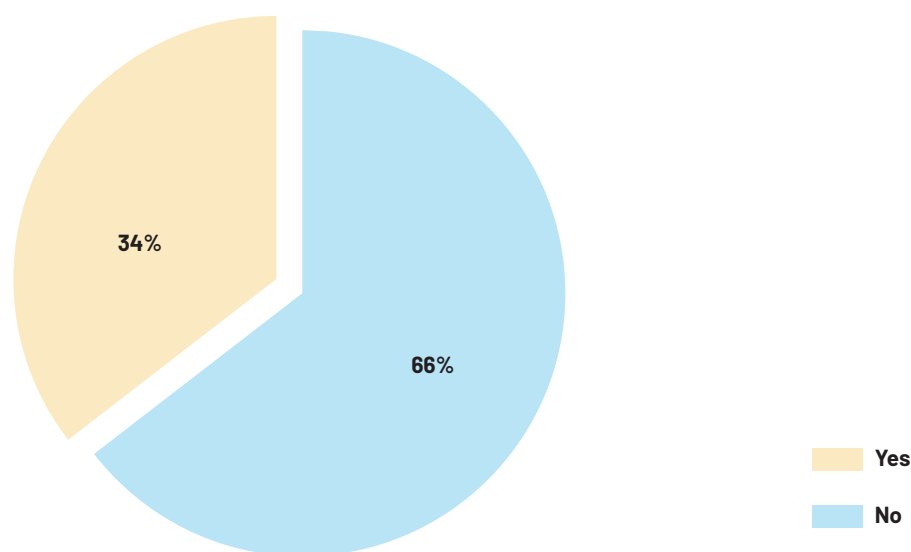


Figure 10: Availed Appointment before Visiting Center

N=1000

The graph above shows that most residents are not aware that the appointment facility exists. Some of the key findings from qualitative interviews have been listed below.

Lack of Awareness on online appointment facilities: Most of the residents, **especially from rural areas are not aware of the appointment facility.** Residents with awareness use the UIDAI website/ websites hosted by registrars or the enrolment agency to fix an appointment.

Waiting Time at centres: In the absence of prior appointments, **residents have to wait for long hours since priority is given to those with appointments.** Centres have already started taking measures to address the challenge - some urban centres have specific time slots exclusively for residents without an appointment while a few of them have prescribed a maximum limit on the number of residents that they serve in a day. In such cases, if the number of tokens reach the maximum limit, **those without tokens need to make a second visit.** As a result, applicants have a general perception that they should visit the centres even before they open to ensure that they get a spot.



“

Chinmay Shete, 25yrs, Latur, Maharashtra was trying to update his mobile number and date of birth. **“When I visited the center, the Staff told me that both mobile number and date of birth cannot be updated on the same day. So I had to visit the center twice even though I had all the necessary supporting documents. I Later found that this was a wrong information”**

”

Crowd management issues: Centres, especially those in urban areas, try their best to attend to applicants who have taken prior appointments at designated time slots. However, many people come without taking an appointment, and some of them with an appointment come too early or too late. In such cases, **the centre staff find it challenging to manage the crowd.**

Support from the centre staff

In addition to their responsibilities, centre staff also assume the additional duty of assisting the residents by providing information and helping them to fill the application form. Most of the residents also reach out to them for such support.

“

Kamalpreet Kaur (24yrs, Delhi) wanted to update her address in Aadhaar for her hostel admission. She went to the nearest Aadhaar update center where the staff only updated her mobile number and told her to use the SSUP portal for any further updation. She shared that her online update experience was not what she expected - **“After multiple attempts of uploading specified documents, I couldn’t update my address using SSUP portal”**

”

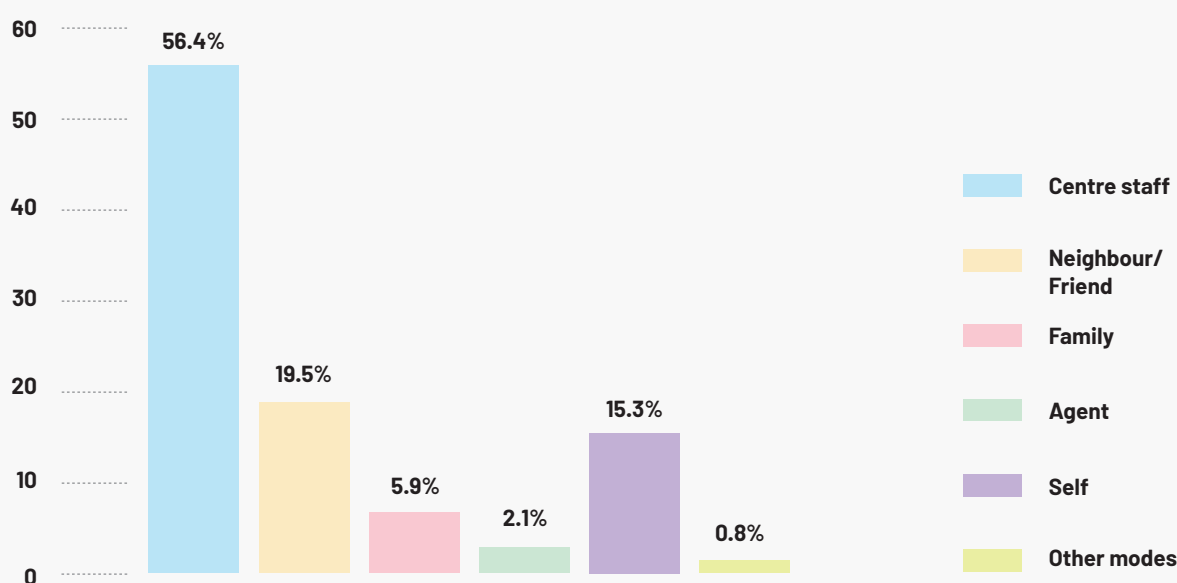


Figure 11: Percentage share of respondents using various modes of assistance to fill the application form

N=1000

It is clear that close to 60% of the sample residents rely on the centre staff to fill the application form. Some of the other findings based on the interviews are:

**Literacy/
education**

Educated residents from urban areas can fill the application forms without assistance. Uneducated urban and rural residents seek help from the centre staff or other literate residents.

**Assistance at
centre**

As a precautionary step to avoid errors, many centres, especially private ones, fill the application form on behalf of the citizens. While this helps the residents, especially those who are illiterate, it adds to the centre's burden and the crowd resulting in delays.

**Associated
factors**

Once all the documents are in place and the resident reaches, the actual update process takes only 10-15 minutes. The primary cause for delay is associated activities such as travel, filling the form, document verification and waiting.

**Centre
Duties**

It is the centre's responsibility to verify the documents and ensure that accurate data is entered into the system. They are required to upload the scanned copies of documents including the application form.

**Screen
Verification**

Once the details are transferred from the application form to the UIDAI system online, the staff request residents to verify the details on the screen as well. However, this mechanism does not work with illiterate residents.

Figure 12: Survey findings associated with filling application forms

■ The post-update stage

Tracking updates

Despite adequate awareness on the online modes through which the application status can be tracked, most residents visit the centre to know the status of the Aadhaar application. This is one of the reasons for multiple visits by the residents before completion of the entire update process.

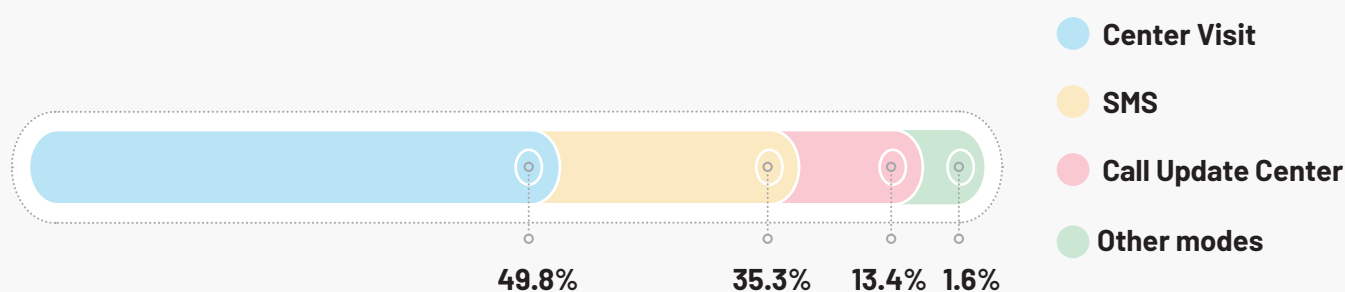


Figure 13: Percentage share of respondents using various modes of tracking application status

N=1000

It is evident that a majority of them visit the centre to get an update; but, a reasonable number of residents also rely on SMS update which is a good sign. Some of the challenges of tracking the update pointed out during the interviews have been explained below.

Not receiving SMSs: At the end of the update application process, the Centre issues a printed slip as proof of transaction. Every resident should ideally receive an SMS from UIDAI acknowledging the receipt of the application. However, a majority of them reported that they did not receive the SMS promptly.

Lack of clarity in reasons for rejection: Some of the other concerns mentioned by centres include lack of updates on the progress of applications, and lack of clarity on the reason for the application getting rejected. This is because the centres don't have the visibility of the UIDAI back office workflow stage at which a particular application is. They cannot access the exact reason for the application being rejected. The status information that they can access is brief and uses technical language that is not always self-explanatory.

Repeated tries to perform update: Some of the residents whose update failed on the first try got through successfully the second time when they used the same set of documents. In some cases, the resident failed to complete the update using the first channel (for example, through a website) but was successful when they tried a different channel (for example, by visiting the centre). These experiences make residents unsure of the efficacy of the system.



Receiving the printed Aadhaar card

Approximately 50% of the residents did not get the Aadhaar card delivered at home and they had to visit the centre to get a printout of their E-Aadhaar, rather than the original Aadhaar card.

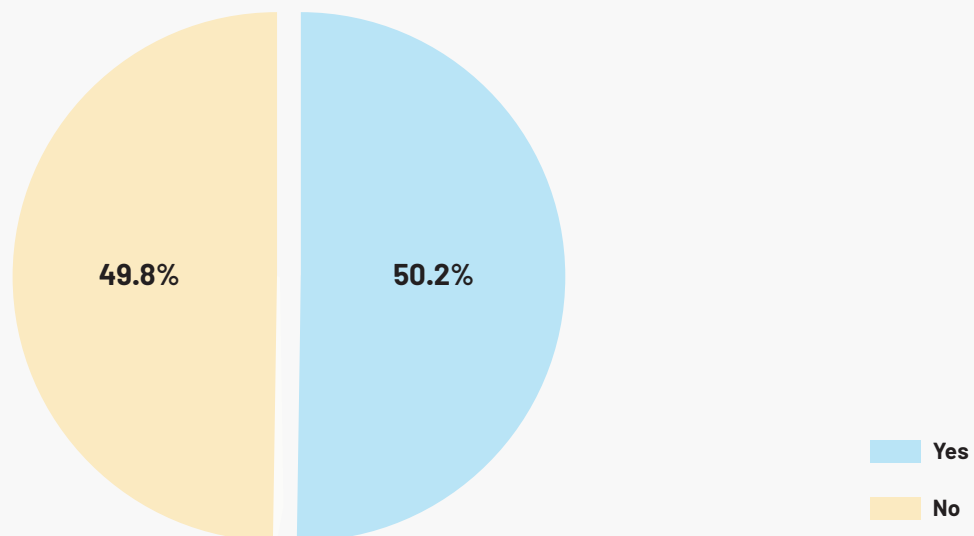


Figure 14: Whether respondents received the Aadhaar through post

N=1000

Lack of knowledge on validity of e-Aadhaar: It is not common knowledge among residents that the e-Aadhaar can be generated from the UIDAI portal. Also, many of them are not aware that the printed copy of e-Aadhaar is equally valid as the Aadhaar letter issued by UIDAI.

Lack of clarity in status of Aadhaar card: In some cases, even after receiving an SMS that the card has been dispatched, residents have to wait for weeks before they actually receive the Aadhaar card. Most of the residents are not aware of the means to track the Aadhaar card delivery status once it is dispatched. Some residents were not aware that their update was complete since they did not receive SMS intimation or the printed Aadhaar card. After waiting for a long time, when they visited the centre, they became aware about the completion of the process – and finally got their eAadhaar printed from the centre.

Lack of access to printing facilities: The Aadhaar card serves as an address proof and residents need to furnish its photocopy for many services such as opening a bank account, sale or purchase of land etc. Hence, they require a printed copy of the Aadhaar card. Limited access to quality printing facilities for rural residents makes it difficult for them to get the Aadhaar printed if they do not receive an updated Aadhaar card from UIDAI. In fact, many rural residents end up travelling to the nearby towns to get the e-Aadhaar printed.



Awareness levels

Awareness among residents

Some of the key points that residents need to be aware of have been depicted in the figure given below. The survey conducted indicated that awareness on these parameters is very low.

- **Address updates can be done through the Aadhaar website or mAadhaar App;**
- **Supporting documents are not required for updating biometric, gender, mobile number, email ID;**
- **A child's Aadhaar requires mandatory biometric update at 5 years and 15 years;**
- **An Aadhaar holder can update his/her name in the Aadhaar card only twice and date of birth once;**
- **It is important to update the latest phone number in Aadhaar;**
- **There is a facility to lock or unlock Aadhaar from the UIDAI website or using the mAadhaar App.**

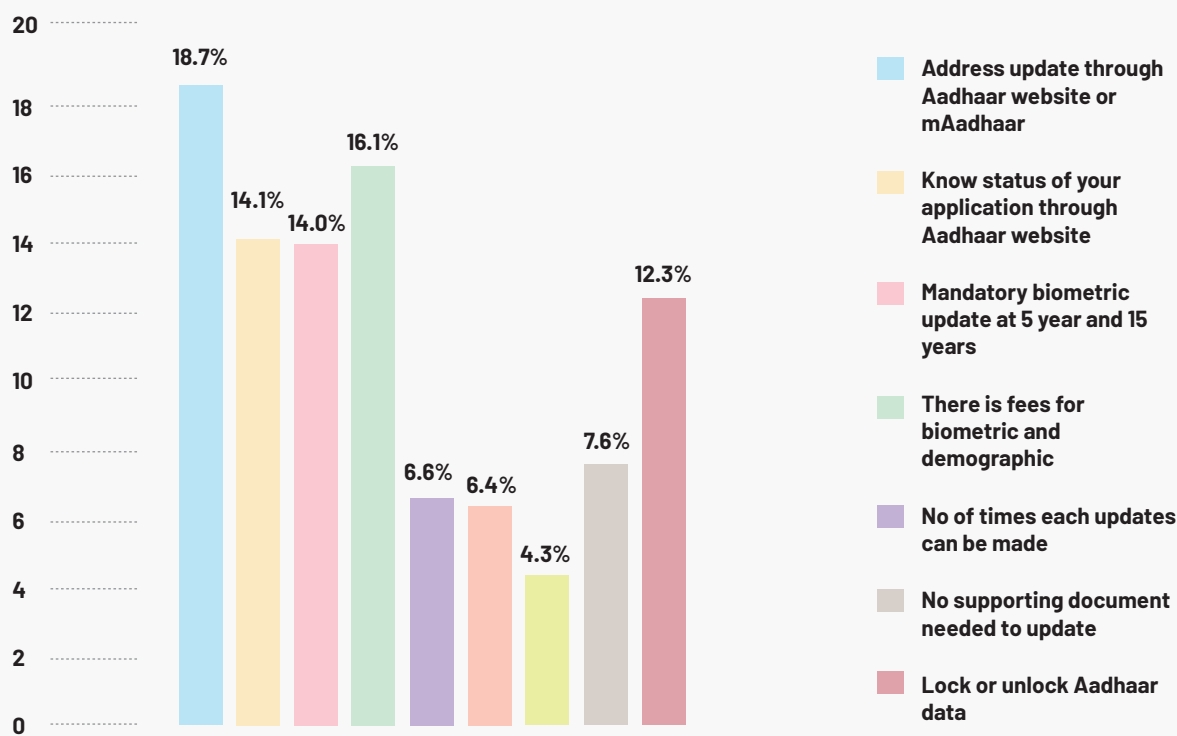


Figure 15: Percentage share of residents using various awareness points to obtain information on Aadhaar updates
N=1000

Most of the residents are not aware of the mandatory updates required at 5 and 15 years. Based on the interviews, even those who are aware of this seem to forget the exact ages at which changes have to be made on a mandatory basis. There is no mechanism that alerts residents about such mandatory updates which makes it difficult for them to keep track of updates.

A few other key observations from interviews have been listed below.

Residents' attitudes towards updates: Most residents, especially those in rural areas, **do not attach a lot of importance to updating information** on Aadhar post life events such as marriage after which some women prefer to change their names.

Poor awareness on existence of update systems: Some labourers and migrants are unaware of the existence of the update system and apply for a new Aadhaar due to lack of awareness.

Failure to update phone numbers: Young residents report that **they change their mobile numbers often** and they fail to update those on the Aadhar portal.

Tendency to procrastinate: In most cases, even residents who are aware of the update process and its importance do not update details unless absolutely necessary (eg: to claim benefits or complete bank transactions)⁹.

Erroneous base documents: Some people do not correct errors in base documents and as a result, the same errors might reflect in their Aadhaar card as well.

Based on information from SOA, 77% of Aadhaar holders have never used features such as mAadhaar, QR code, virtual Aadhaar, or masked Aadhaar. The report also points out that awareness on redressal mechanisms is very low. People were also not sufficiently empowered to use them.

“

Bodhram from Janjgir Champa, Chhattisgarh talked about his experience in getting his wife's name updated post marriage - ***“People don't know that they have to get a marriage certificate after their wedding. We reached out to the Panchayat Head/Tehsildar to get a letter attested regarding the change of name. Unless people come across a situation where they will be denied a benefit, they will not think about an update”.***

”



Lack of awareness on handling complications

In the case of updates that have various complications like rejection of an application multiple times or an issue with a supporting document, the centre staff may not be aware of further steps to guide them. As a result, a few updates remain incomplete even after years.

Lack of knowledge sharing mechanisms

There is no formal mechanism available to exchange knowledge and to share such experiences between the centres.

Minimal awareness on alternatives for rejected application

On rejection of the application, the only option known to them is re-submitting the entire application once again. The centres are not informed of any alternative procedures available for a rejected application.

Skill gaps in completing updates with minimal visits

Most of the staff at the centre are competent to the extent required to conduct regular update activities. However, not all centres have the skill and knowledge to facilitate completion of a transaction with minimal visits to the centre, especially in cases that involve complications.

Use of informal training methods

UIDAI Regional Offices and Enrolment Agencies are responsible for conducting training programs. In the absence of a mechanism for systematic identification of training needs, centres use informal methods to train staff, which results in inconsistent knowledge on updates.

Figure 16: Awareness / Skills among UIDAI staff

■ Out of pocket expenditure for residents

Out of the costs that the residents had to pay, the majority reported that they paid the highest amount for travel expenses.

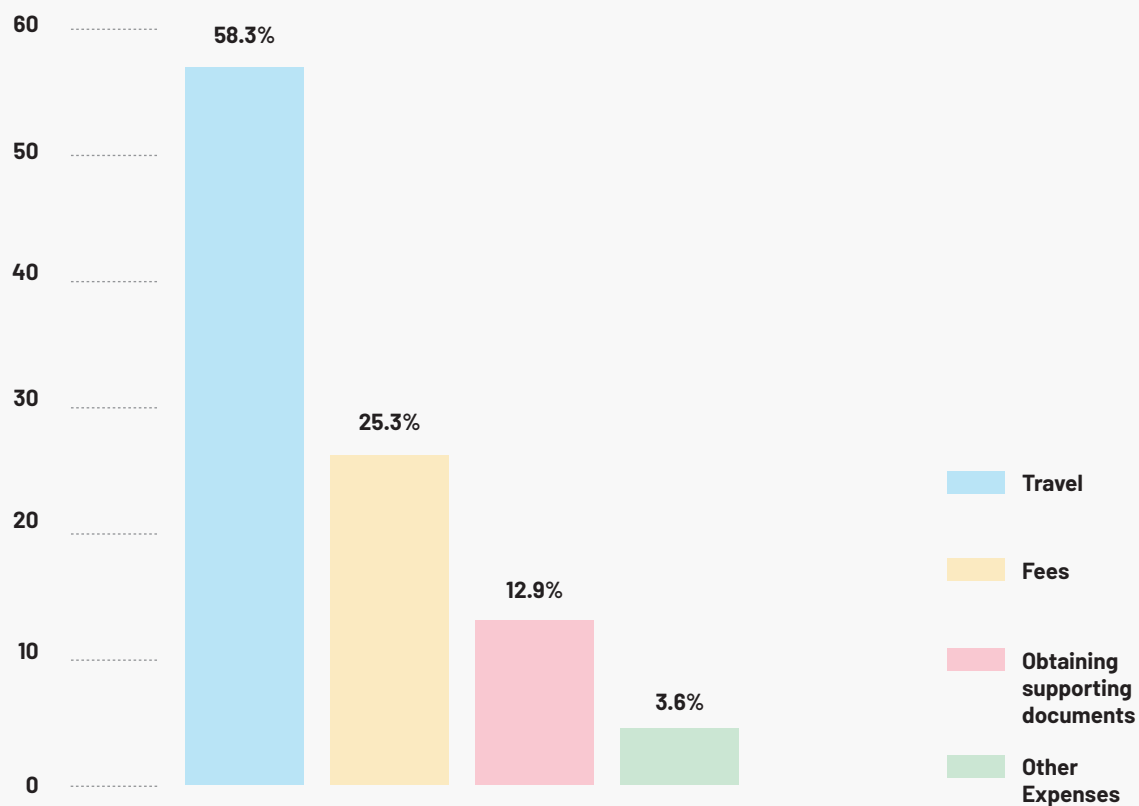


Figure 17: Percentage share of respondents reporting expenses involved in Aadhaar updates across various categories

N=1000

The interviews revealed that:

Increased distance resulted in residents spending more money on travel.

Residents reported that some centres charge fees for certain services that are free and some even charge more than the prescribed fee.



Summary of identified areas for improvement

■ Summary of identified areas for improvement

The major challenges that citizens face are summarized below:

- **Difficulty in getting reliable and accurate information** on the update process, supporting documents required and information on access points for the update leads to many residents approaching the centres to gather such information.
- Additionally, a lot of **time, money and energy needs to be spent for the update process**. Most of this is spent for travel, especially if distance to the centre is more than 10 kms.
- Moreover, residents who are moving to a different city or town temporarily for work, business, or for personal reasons **do not have a provision to keep both their permanent as well as temporary/current address in their Aadhaar**. In a situation where the address of the resident is a criterion for disbursing certain schemes and benefits, especially those offered by State Governments, this is a critical concern¹⁰.

- Apart from these, in a few cases, **issues like burns, calluses or even old age result in change of biometric information.** People who undergo such problems will not be able to avail benefits or schemes that require an Aadhaar card. In such cases, the person might have to go through an alternative mechanism to avail such benefits or schemes, which might be more time-intensive. Another key challenge is that if an **update application is rejected**, there is no facility to re-submit it.

A summary of the key issues are presented below:



Figure 18: Summary of challenges faced by residents in Aadhaar updates



Recommended solutions

■ Recommended Solutions

Considering the challenges and gaps identified in the sections above, the following key solutions are recommended in order to address them:

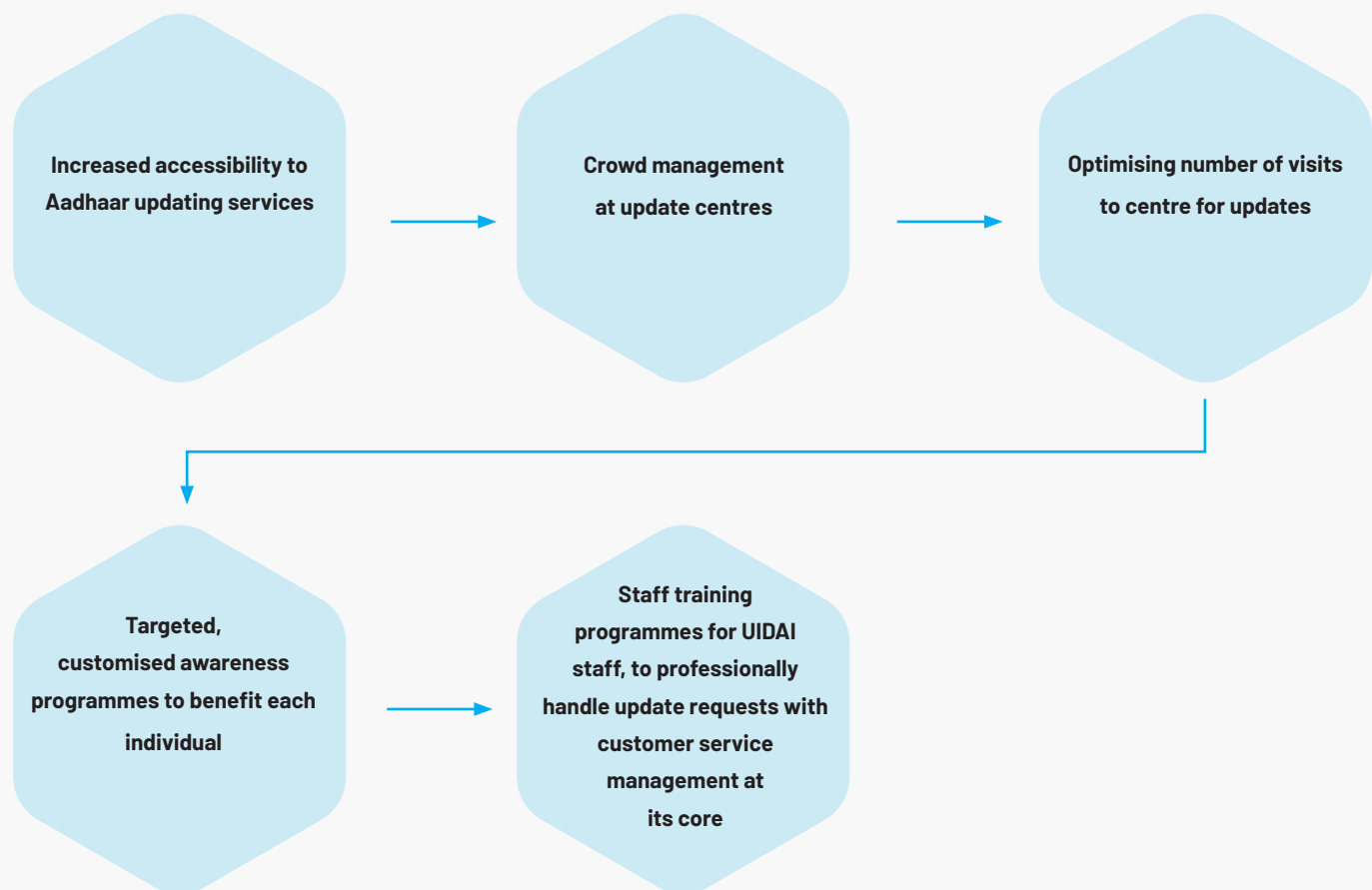


Figure 19: Summary of key, potential solutions

■ Increased accessibility

Outreach programmes like Aadhaar Melas

If centres conduct outreach programmes (such as Melas) that facilitate easy update of Aadhaar information at one go, that will help nudge residents to conduct updates. Such initiatives can also be used as an opportunity to create awareness about Aadhaar and Aadhaar enabled services. The Melas can also be organised in coordination with local governments and Panchayats to ensure higher reach and better participation.

Mobile Aadhaar update units

Given that residents find it challenging to travel to the centre, UIDAI could consider introducing mobile units (in vans) that travel to villages on specific days to enable easy updating of Aadhaar information. If such vans are stationed in places where residents visit frequently, like weekly markets, residents can plan their updates whenever they visit the market.

Aadhaar self-service kiosk

Setting up Aadhaar self-service kiosks that have adequate capability to scan standard documents, perform biometric authentication, and submit forms can help to perform an update on self-service mode. These kiosks can be set up in locations that are easily accessible to residents. Till people get familiar with these self-service kiosks, staff can be deployed to assist them. Any update attempt that fails at these locations can be redirected to the nearest centre.

Setting up mobile units/ self-service kiosks would require high initial capital investment. However, considering that such investments are mostly one-time and can provide long term returns, private entrepreneurs could come forward to invest/co-invest, if a portion of the fees collected for update services can be shared with them.

Increase the number of centres and reach

In India, around 95% of people have Aadhaar cards, whereas the total number of centres is just 40,000. This indicates a need to augment the number of centres. The number of centres needs to be decided with caution since having too many centres will reduce the revenue per centre – which might in turn, discourage private entrepreneurs from running these centres. While deciding this number, factors like concentration of populations, geographical terrain, financial and the operational feasibility of running the centre etc. need to be considered. A database of potential locations where centres could be opened can be created based on these criteria so that it is easy to evaluate new proposals for opening centres.

- A model of primary and secondary centres

A model which consists of a central establishment that offers a full array of services, complemented by secondary establishments which offer limited services, can also be considered. Designated Aadhaar update centres can act as hubs, and individual Village-level Entrepreneurs, Banking Correspondents, Digital Sakhis, or even ASHA Workers who are capable of handling the assigned responsibilities can function as sources of information and to provide doorstep assistance.

- Making centres easy to locate

Residents usually use the internet to find contact details of the Aadhaar update centres. Therefore, contact details of the centres need to be updated frequently. A fair number of residents have expressed in the survey that they find it difficult to locate the room/office in which the update centre is functioning. Hence, adding details such as visible name boards at centres, specifying the building name, floor/door number, and landmarks will be helpful.

Crowd management

Centres often tend to be crowded and the centres need to take adequate measure to manage the crowd.

Providing door-step assistance

Providing services related to pre-update and post-update stages at the resident's doorstep will help reduce the number of visits that the resident has to make to the Aadhaar centre. This will be of help to people especially from rural India, who may have to travel long distances to reach the nearest centres. Services that can be provided at their doorstep include:

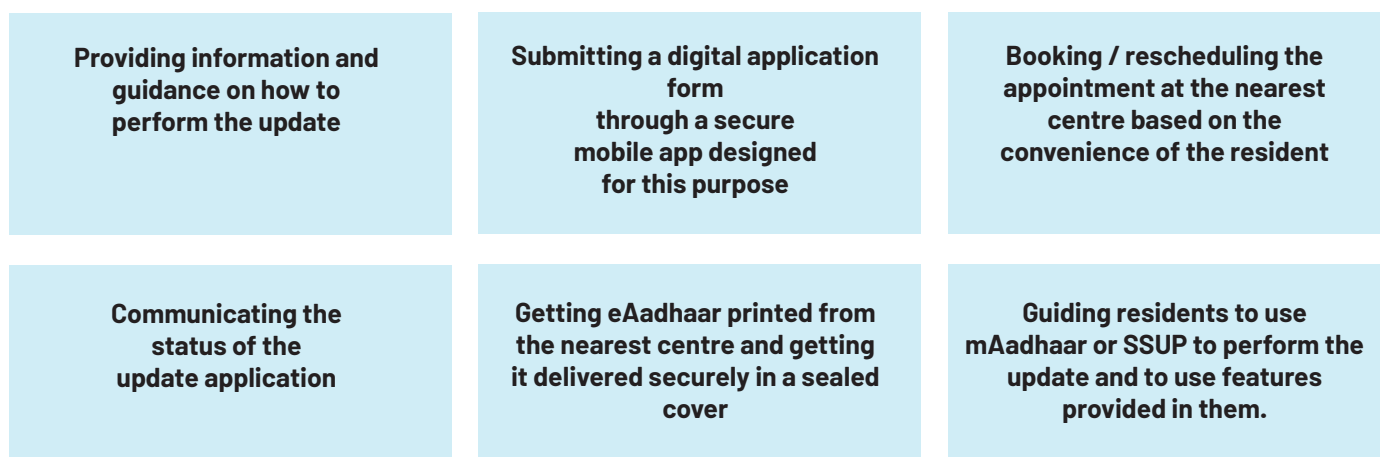


Figure 20: Potential forms of doorstep assistance that could be provided

Doorstep assistance – some practical considerations

Are people ready to welcome such an initiative?

Considering the time, effort, & money that has to be spent to visit the centre for these services, residents have expressed in the survey that they are open to this service and are even willing to pay a nominal fee for it.

Is it practically feasible?

India has around 8 lakh banking correspondents and 9 lakh ASHA workers. In addition to this, there are other state-level initiatives related to providing doorstep banking services, health care, and e-governance related services even in villages across India. Leveraging these networks can help to increase the geographical span and the number of residents that a centre can serve.

How can this be implemented?

Members of the above communities can be recruited and trained to provide doorstep services. Each of them can work under one centre and be assigned the responsibility to serve a particular geographical area; and can be incentivised based on successful completion of updates. Such a system will help not only to reduce the workload of the centres but also to increase their earnings by helping them serve more residents.

61% residents who were surveyed mentioned that it would be convenient if Asha worker or BC comes to their home and helps them with the application process



Altering timings

For the sake of some residents (such as officegoers and daily wage workers), there is a need to make the working hours of centres more flexible, outside of regular business hours. A potential solution to this is having the centres open before 7 am or after 5 pm, that will help to perform the update before or after going to work. Another option is to keep a few centres open in Sundays. This will also be helpful for daily wage workers who cannot afford to lose a day's wage.



Reduce the need for and number of visits to the centre

Residents mostly tend to visit the centre to get information on supporting documents required to perform the update, steps/time involved in completing the update, where to get the update application form and how to fill it up. They also pay visits to track the status of their application or to understand reasons for rejection in the post-update phase. Solutions to reduce the number of visits need to target these points.



Better access to information in the UIDAI website and mAadhaar app

The website has too much information which will be difficult for residents to process. A highly personalized, dynamic website/app that is more interactive and capable of providing a step-by-step guide will be effective. Ideally, having an interactive form that shall first try to understand the resident's intent and then guide them accordingly will be useful. It will also be useful to have a 'read aloud' (voice-assisted descriptions) feature to help even a person who cannot read. For example, if a resident wants to update his / her address, a step-by-step guide on how to perform address updates can be shown, along with pictorial representations. Following this, links to relevant forms could be provided along with a comprehensive video on how to fill up the form. Thereafter, an appointment booking facility at the nearest centre could be provided. All these steps could ideally be in the local language with a 'read-aloud' facility to help residents understand the process completely.



Call centre and IVRS

An interactive voice response (IVR) system that is dynamic and personalised will be a useful source to provide basic information. The system can be automated to suit the needs of the resident. For example, for a resident calling from his/her registered mobile number, the IVR can automatically switch to his/ her local language or a resident who has already initiated the update process can be given a direct option on the menu to know the status of his last update before suggesting other options.

1. For people who may not be familiar with IVR menu selection using key presses, a new conversational IVR that has automatic speech recognition (ASR) capabilities using AI (Artificial Intelligence) / NLP (Natural Language Processing) technology might be of great help. Residents need not have to go through multiple levels of menu selections. Queries that cannot be handled by the automated IVR, can be transferred to a customer service executive. This will enable optimisation of human effort and increase in efficiency.
2. These enquiry calls can be handled from one central location and as the number of such enquiry calls rises, having state-wise call centres can be considered.
3. A click-to-call button can be provided on the website and the app so that the resident can just click on it to connect to the call centre.



Voice-enabled bots to handle frequently asked questions (FAQs)

An interactive bot can support voice-based conversations in English and some of the major Indian languages, to help address FAQs such as questions on steps involved in performing the update, the location of the nearest centre, or the contact details of the centre. Voice support will help to minimize the need to type. It will also support residents who are not literate enough to read or write.



Automated enquiry through popular messenger platforms

Messenger applications such as Facebook messenger, Telegram, WhatsApp etc. are quite popular among people with smart phones. An automated enquiry process can be facilitated through such applications to address FAQs. These messenger platforms support integration with automated bots, which can handle frequently asked questions coming from the residents. Since most residents use these messenger apps, having an automated facility to handle these questions would be very helpful.





SMS autoresponders

The Unstructured Supplementary Service Data (USSD) system enables sending instant, automated text messages to residents when they text a specific keyword to a predefined short code number. This could be a cost-effective tool for delivering on-demand information to people seeking immediate responses. For example, if a resident wants to know the status of their last update application, they could send an SMS with the text 'STATUS' from their registered mobile number and obtain an SMS back with information on the status.



Digital application forms and assisted form submission

The update process starts with filling up the application form and submitting the required supporting documents. Creating a provision to submit a digital application form along with scanned copies of supporting documents will help to avoid the duplicate effort involved in first manually filling up the form and then the operator entering details into the UIDAI system. This also helps to reduce the possibility of committing errors while filling up traditional forms that need to be filled manually. Digitizing this step would enable citizens to either fill up the form themselves and visit the centre, or to use on-field digital form filling assistance when they visit centres. Door-step assistance can also be provided to residents for filling the digital form. The following features could be ensured while doing this:

79% of the residents expressed that it will benefit them if a member of their family is trained to submit the application form online and to take an appointment before visiting the centre.

Digital form on the website/ mAadhaar app <p>The form can be linked to the home page of the website/ the app where it is easily accessible. This can have detailed instructions on how to fill each field.</p>	Multilingual options <p>On the form, there can be an option for the residents to choose between English and the local language that they are comfortable with.</p>	Guided forms <p>A dynamic video & voice enabled form to assist the residents in filling it might be useful. After successful submission of the form, the residents can also be shown the option to avail an appointment in the nearest centre.</p>
Availing support <p>Residents can avail the help of call centre executives to fill this form. Co-browsing facilities using applications can be used by executives to assist the resident while filling the form. In such cases, the resident's written/oral consent is mandatory. This can be embedded into the website by having a button that will redirect the applicant to a session where the screen can be remotely viewed by call centre executives</p>	Pre-filled forms <p>After completing the authentication process of a resident using OTPs, the application form can be prefilled with information already available in the Aadhaar system about the resident. The resident will then need to fill only those fields which they wish to update.</p>	Verification <p>When the resident visits the centre, the operator can retrieve the digital application form and verify documents with originals. If there is a requirement to maintain a physical copy, the application form can be printed and the resident can place their signature on it.</p>

Figure 21: Suggestions on enabling residents in filling application forms

["human user's behaviour"](#)¹¹(Cite). More specifically, a chat bot is a programme that uses AI to respond to messages or questions by end users and provides a feeling that he/she is interacting with an actual person. (Cite)¹²

Targeted awareness

More than 95% of the Indian population holds an Aadhaar card. Given that the use of Aadhaar and Aadhaar enabled services is widespread, it is necessary to create awareness on the importance of updating information associated with the individual's unique identification number (UID).

In order to connect with residents and spread awareness, it is essential to understand their needs and perspectives as well, and also to ensure that the information is personalised to the maximum extent. Generalised information might be difficult for residents to relate to and process. In these times, using a combination of rule-based and artificial intelligence based algorithm methods which use big data to segregate residents based on information that they require and designing targeted awareness programmes accordingly might be quite valuable.

"85% of residents felt it would be helpful if UIDAI reaches out to them with relevant and contextual alerts & intimations."

In order to do this, it is essential to first identify the data using which personalization can be done:



**Product Use Number,
frequency, and failures of
authentication**



**Touch Points - Website,
Mobile Application, and
Aadhaar centre**



**Interactions -
Chat bot, call centre,
email**



**Relationships
with other Aadhaar
holders in the family**

Figure 22: Touch points for personalisation

Using this data, personalization can be done at two levels:

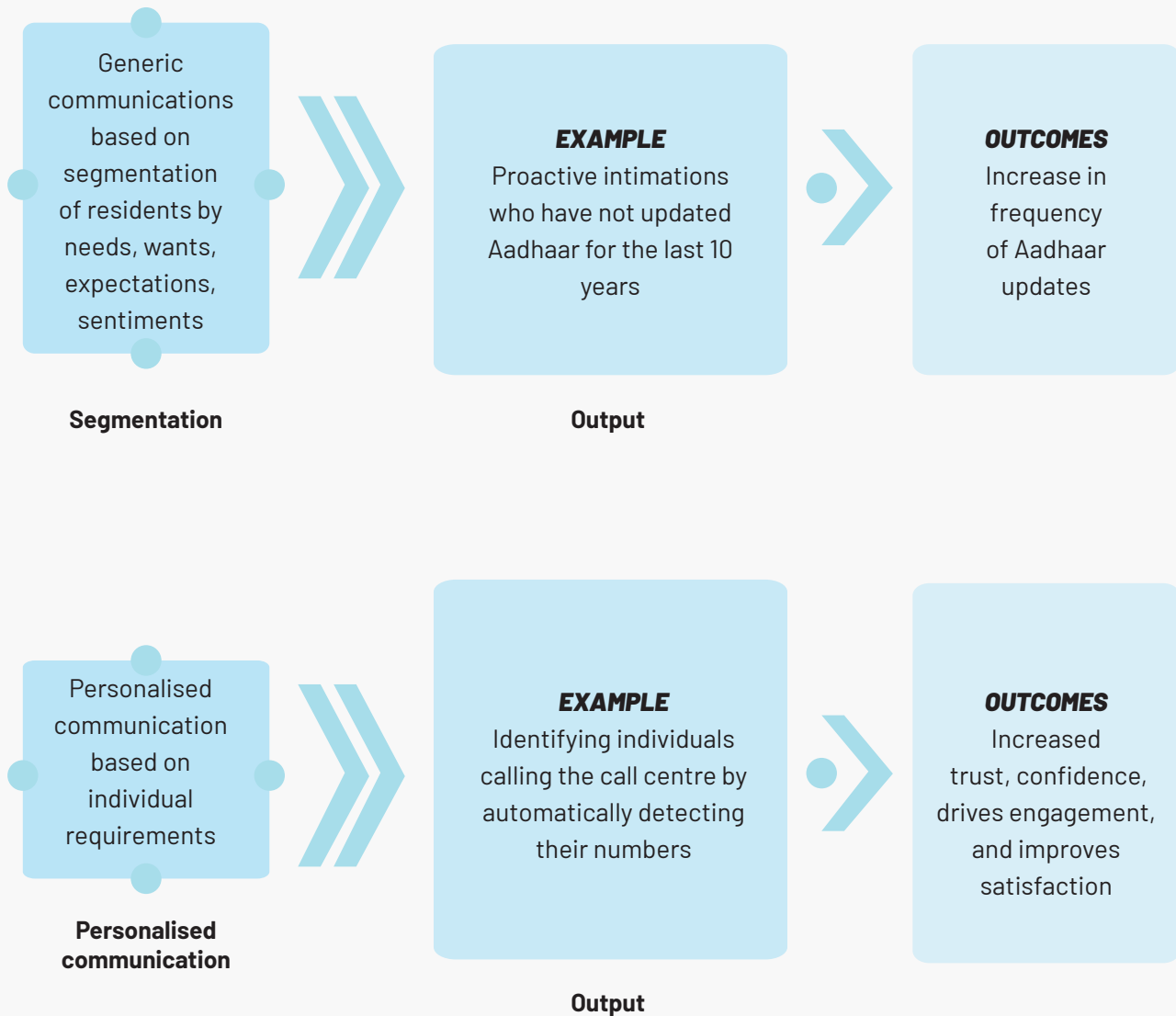


Figure 23: Levels of personalisation

The inferences and recommendations derived from data using advanced AI algorithms will help send relevant and contextual communication, suggest action points, recommend use of relevant Aadhaar related services, send proactive reminders, alerts, and updates, provide personalised experience in the website, mobile app, chatbot and other customer support channels.

The following figure summaries the suggested approach:



Figure 24: Suggested approach for personalisation

■ Staff training

The staff at UIDAI are touch points that residents heavily rely on and it is important for them to be well aware of the update process, the steps involved and action that needs to be taken by residents once an application is accepted or rejected. In addition to this, they also need to receive training on professional customer servicing.

Combining centre staff training with Skill India Programme

Operators and supervisors need to be given formal training on topics such as like customer servicing, queue management, office management, complaints handling, and customer support. Similar training programmes are being conducted under Skill India¹³. Therefore, it might be useful to bring training of centre staff under the purview of this initiative and incentivise staff to take up these courses. If a customised course is not available, a special course can be designed in partnership with the NSDC (National Skill Development Corporation). These courses can be a mix of generic modules that can be helpful for a customer servicing job that the staff might take up in the future and modules specific to Aadhaar related processes and procedures.

Digital, self-paced learning options

There is an increase in penetration of smartphones and the use of internet offered services¹⁴. Considering this, digital learning can be a potential option that can be tapped to train staff. As the staff composition keeps changing through the year due to staff attrition and resultant inexperience due to replacement, classroom-based training might become challenging. Instead, a digital, self-paced training course can be offered to them so that it is convenient for them as well. Such a course can also be tailored based on the role of a person within the Aadhaar ecosystem. Digital games simulating real-life scenarios can also be used to complement the training programme. This is because personalised learning also takes into account learning preferences / pace of each individual. While personalized learning is about adapting the learning method/content/the timing based on an individual's preferences, continuous learning is all about engaging with learner for a longer period of time and delivering bite sized learning modules on a continuous basis. This is relevant because continuous improvement is critical for employee to be successful in what he/she is doing. Such dynamic learning systems, as against a one-size-fits-all approach, can be very effective in ensuring consistent service quality across all the service delivery points.



■ Summary of key solutions



Mobile Aadhaar units, Aadhaar Melas: Mobile Aadhaar Centres along with Aadhaar Melas that are conducted regularly will reduce the need to travel and ease the update process



User friendly website, mobile app & call centres:

Popularize the UIDAI website, mAadhaar App, and call centres to get information on Aadhaar updates. Make those channels user friendly & increase the use of such self-service channels



Doorstep delivery of pre and post update services: Providing services related to pre-update and post-update stages at the doorstep will help residents, especially from rural India and increase the reach and efficiency of the centres.



Digital application forms: Using digital update application forms which can be filled easily with or without assistance will be helpful. Using AI & OCR technologies to automate document verification, identity verification, and to authorize the transaction shall reduce need to visit the centre for these purposes.

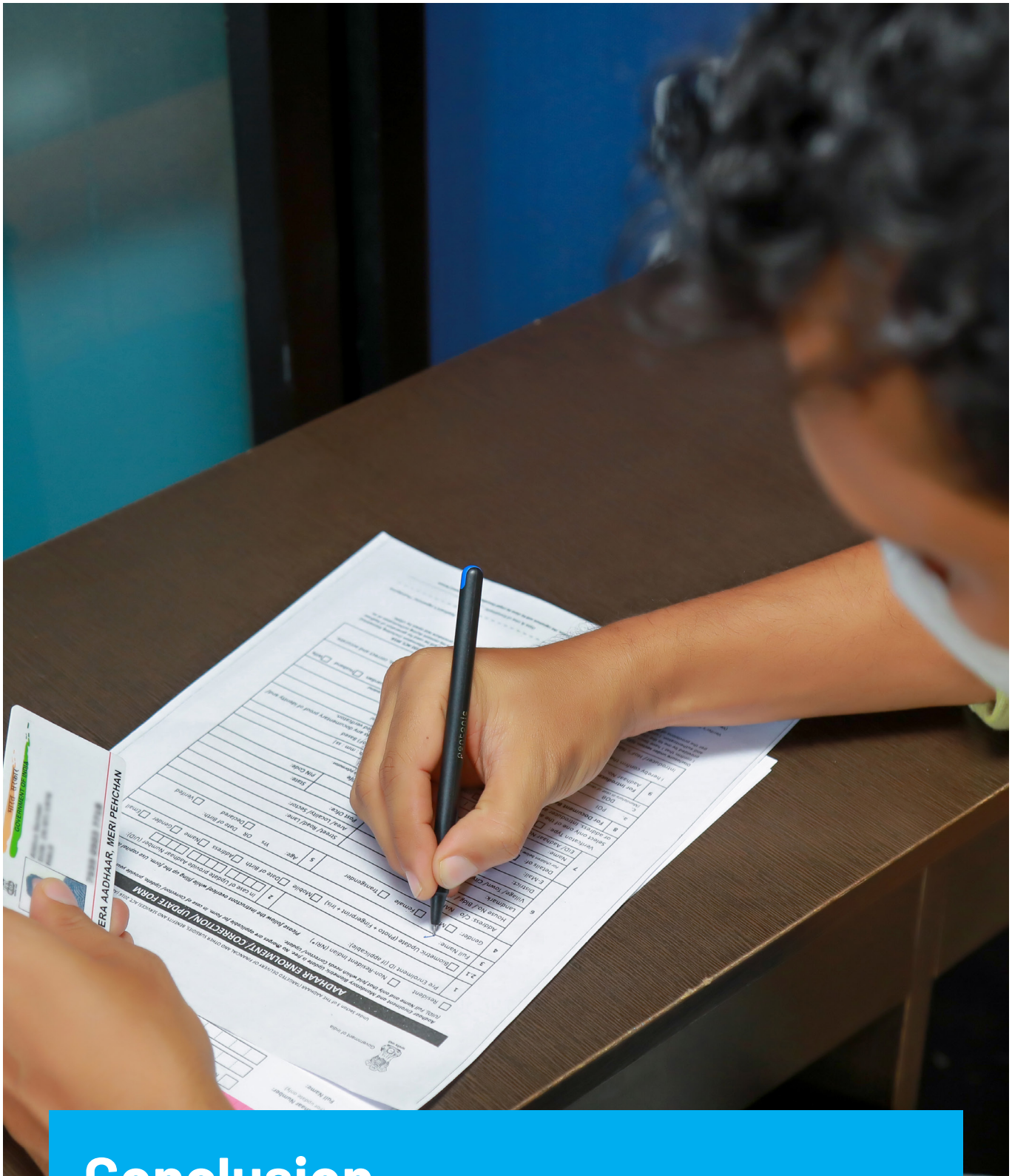


Targeted awareness campaigns using advanced analytics and AI: Personalized, targeted awareness campaigns using advanced analytics and AI would help to deliver relevant information to the resident at the most appropriate time.



Dynamic & continuous learning system which can adapt to the learning capabilities: Implementing a dynamic and continuous learning system which can adapt to the learning capabilities of each staff can be very effective in educating and empowering them.

Figure 25: Summary of key solutions



Conclusion

With the turn of the decade, India is entering a digital era – in which Aadhaar and Aadhaar activated services will have more prominence. With the proliferation of the internet and smartphones and the recent pandemic almost mandating their use for survival, people would inevitably prefer to use these devices in their day-to-day lives much more than they did in the last 10 years¹⁵.

Over the years, UIDAI has built a very secure and robust back-end system that is capable of enrolling citizens, updating details, and authenticating identity through digital means – ensuring citizens gain access to benefits from government schemes that are entitled to them¹⁶. With the increasing adoption and use of Aadhaar in their day-to-day life, it is natural that residents would want to keep their demographic and biometric information in their Aadhaar up-to-date. Hence, the need for updates will continue to rise in the coming months and years.

But there are a few challenges that prevent the residents from having a smooth update process. These include lack of access to updated and reliable information, challenges and expenses associated with reaching the update centres, the need to visit these centres multiple times, lack of awareness on the update process, inability to navigate through the online options available to complete the update process, and lack of clarity in the roles of centre staff. Language also tends to be a major barrier preventing residents from accessing digital modes of update such as the UIDAI website and the mAadhaar app.

Solutions proposed to overcome these challenges include interventions aimed at increasing accessibility, effective crowd management, targeted awareness and staff training programmes. Considering this, the following are set to become top priorities in the coming years:

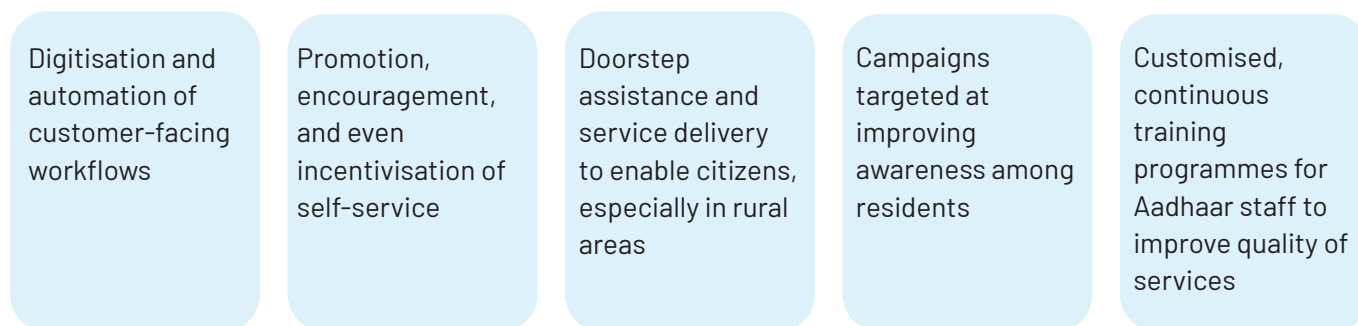


Figure 26: Caveats to consider before implementing suggested solutions

The technical, financial and operational feasibility of these solutions and the extent to which they will be beneficial to the residents need to be gauged before arriving at a decision on the solutions that need to be prioritised. Decisions also need to be made on whether each of these solutions need to be implemented in the short, medium, or the long term. It is also important to pilot these solutions at a small scale before scaling them up.

Given the increase in the use of Aadhaar as a proof of identification and the rise in the use of Aadhaar enabled services, it is vital for residents to update details associated with their UID to avail such services. Hence, it is important to direct efforts and resources towards improving the update process and making the process easier for the residents.

Abbreviations and Acronyms

UIDAI	Unique Identification Authority of India
SMS	Short Message Service
ATM	Automated Teller Machine
CIDR	Central Identities Data Repository
BC	Banking Correspondent
IVR	Interactive Voice Response
ASR	Automated Speech Recognition
AI	Artificial Intelligence
NLP	Natural Language Processing
OCR	Optical Character Recognition
SOA	State of Aadhaar Report 2019
mAadhaar	mobile application hosted by UIDAI which acts as a Aadhaar card in a wallet and provides a host of services and facilities associated with Aadhaar
eAadhaar	A password protected electronic copy of Aadhaar, which is digitally signed

Glossary of Terms

Nodal Officer:	An official given responsibility for a specific project or task within an organization
Resident:	Any person living in India
Chatbot:	A computer program designed to simulate conversation with human users, especially over the internet
Asha Worker:	Accredited Social Health Activist is a community health worker instituted by the government of India's Ministry of Health and Family
Gram Panchayat:	A gram panchayat or village panchayat is the grassroots-level of local self-governance system in India and has a sarpanch as its elected head
Centre:	An Aadhaar Centre

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