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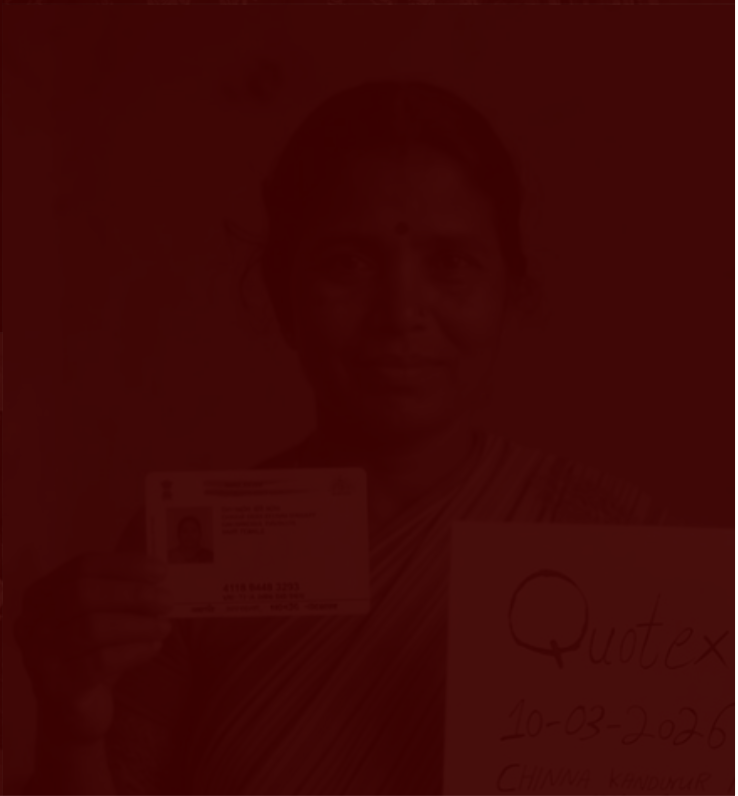
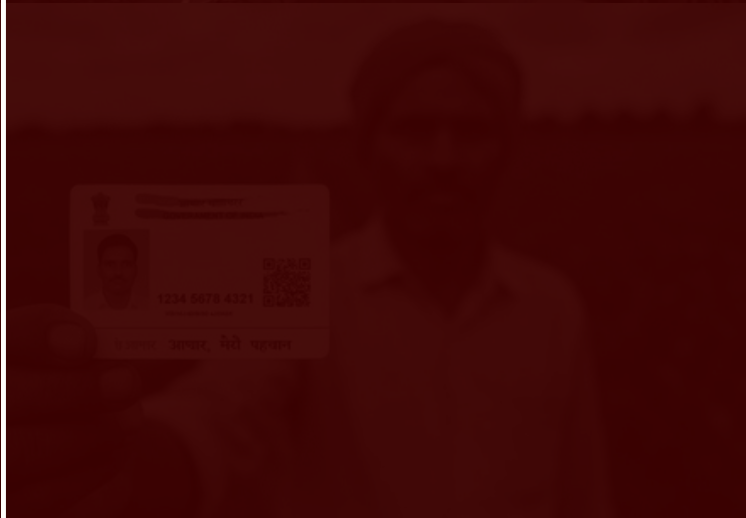
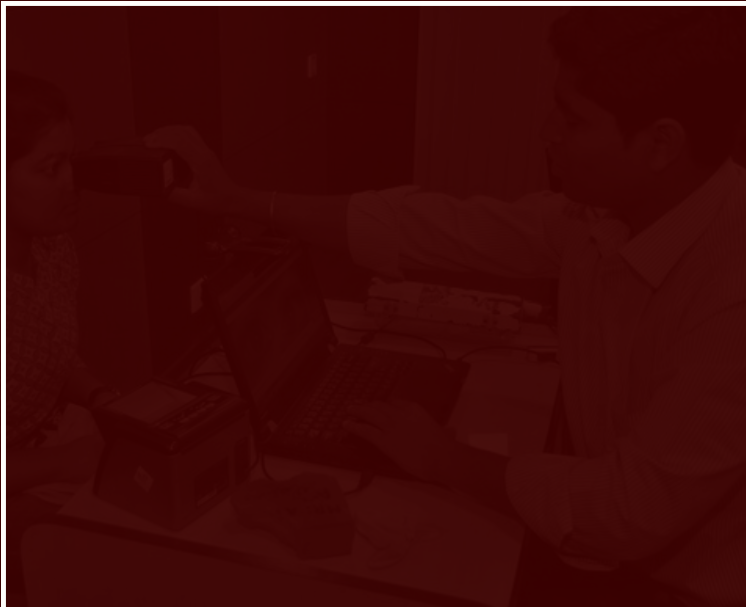


PROJECT JAANKARI

Analysing the Aadhaar
Ecosystem in Delhi



SESSION 2025-2026



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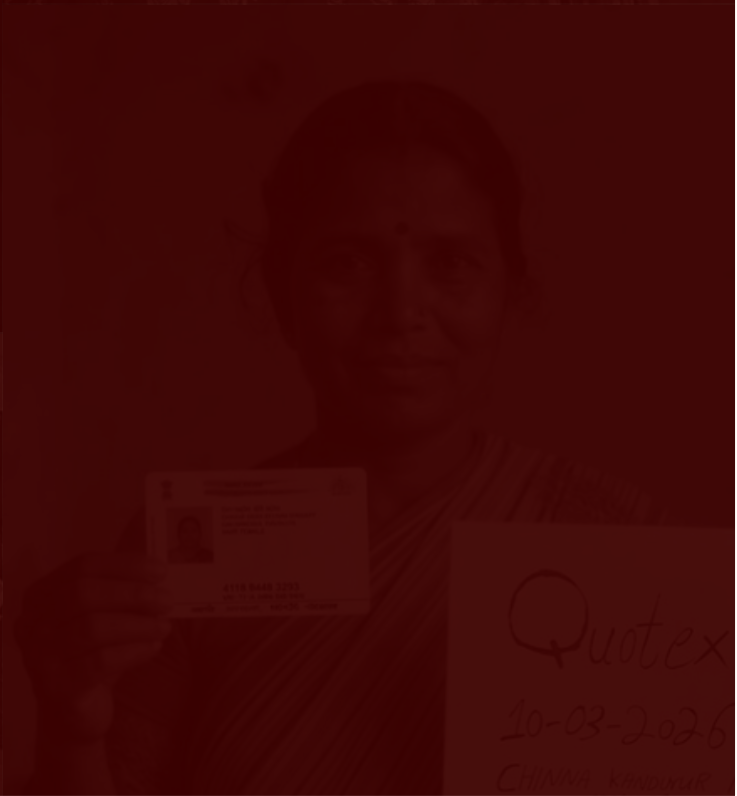
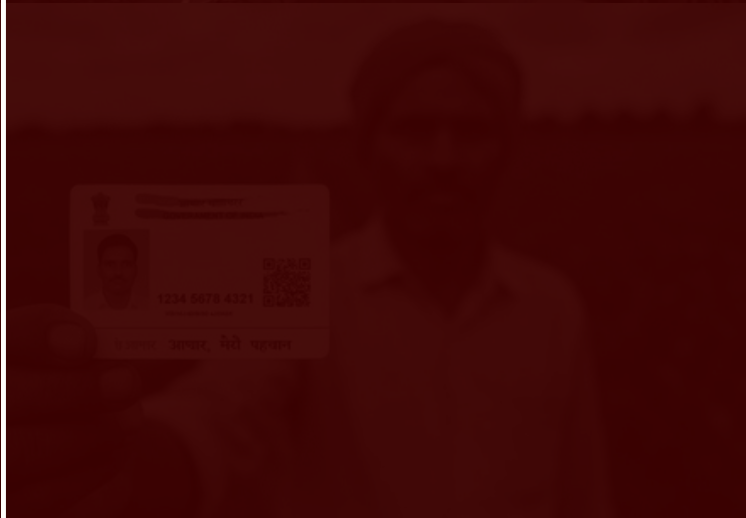
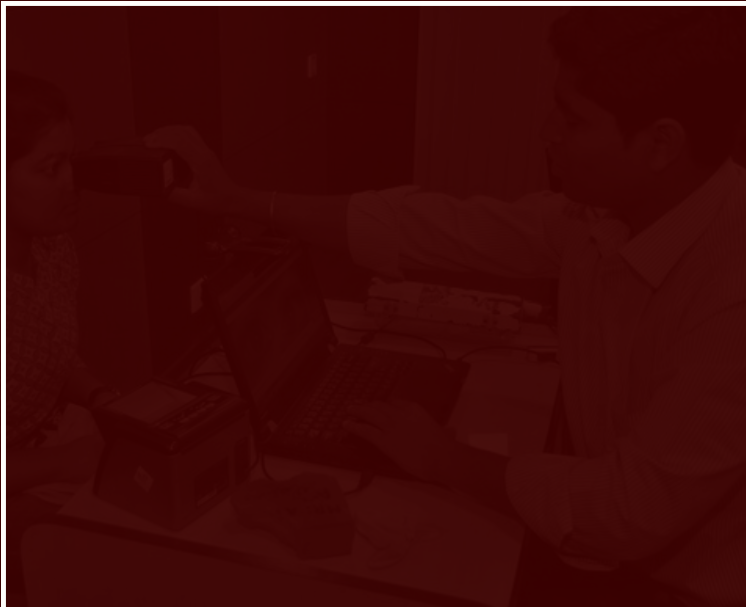




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Abbreviations

Abbreviation	Full Form
ASA	Authentication Service Agency
AUA	Authentication User Agency
BSNL	Bharat Sanchar Nigam Limited
CAG	Comptroller and Auditor General of India
CDFI	Centre for Digital Financial Inclusion
CIDR	Central Identities Data Repository
CPMS	Central Plan Scheme Monitoring System
VLE	Village Level Entrepreneur
DBT	Direct Benefit Transfer
DEF	Digital Empowerment Foundation
UIDAI	Unique Identification Authority of India
KYC	Know Your Customer
LCA	Latent Class Analysis
LPG	Liquefied Petroleum Gas
ASK	Aadhaar Seva Kendra
MIS	Minimum Infrastructure Standard
NLSIR	National Law School of India Review
NRI	Non-Resident Indian
OCR	Optical Character Recognition
OLS	Ordinary Least Squares
PAHAL	Pratyaksh Hanstantarit Labh
PDS	Public Distribution System
POI	Proof of Identity



CSC	Common Services Centre
DOB	Date of Birth
IIT	Indian Institute of Technology
IS	Information Systems
IT	Information Technology
MeitY	Ministry of Electronics and Information Technology
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
OTP	One-Time Password
POA	Proof of Address
PwD	Persons with Disabilities
QR	Quick Response
SHG	Self-Help Group
SLA	Service Level Agreement
SOP	Standard Operating Procedure
SPSS	Statistical Package for the Social Sciences
SRDH	State Resident Data Hub

Introduction

Aadhaar, India's national identification system and the world's largest national biometric ID card initiative, with nearly 1.377 billion unique ID numbers issued, assigns a unique 12-digit identification number to every resident based on their biometric and demographic data. With the help of this one identity, the government can connect the citizens to various databases, thus making it possible for the benefits to be transferred directly to the beneficiaries (DBT) and also resulting in a reduction in the duplication of beneficiaries who are registered for schemes like PDS, MGNREGA, LPG subsidy (PAHAL), and National Social Assistance Programme etc. According to the DBT Mission (Cabinet Secretariat, 2024), over 1,300 central and state schemes are Aadhaar-enabled, covering sectors such as health, education, agriculture, and social security. With over 1.4 billion enrolments, it establishes the fact that it is an important government service, with an ample structure of demand and supply sides.

Aadhaar Seva Kendra (ASK), launched by the UIDAI, is a one-stop destination for all Aadhaar services for individuals. ASK offers dedicated Aadhaar enrolment and update services to individuals in a state-of-the-art environment. The Aadhaar Seva Kendra offers a comfortable air-conditioned environment. The Aadhaar Seva Kendra offers a comfortable air-conditioned environment to individuals.

All ASKs are wheelchair friendly and have special provisions to serve the elderly and the specially abled.

Unfortunately, despite the government's plans to make Aadhaar accessible, several studies, audits, and field reports have been pointing out that operational, accessibility, and inclusion-related problems continue to exist in a significant way ranging from long waiting times, token-management issues, technical glitches, to the exclusion of elderly and differently-abled citizens. Therefore, while Aadhaar and ASKs form the core of India's e-governance/foundation identity architecture, the actual functioning of these Centres on the ground needs a rigorous, empirical investigation.

Hence, this research concentrates on ASK and enrolment Centres in Delhi, which is a densely populated, diverse, and high-demand urban area, to assess the physical and technological infrastructure, process efficiency, technology performance, grievance redressal, awareness, and citizen satisfaction, before policy-oriented recommendations.

Existing research on Aadhaar and security/exclusion shows issues such as biometric mismatches, authentication failures, digital access deficits, and delayed updates.

Various media outlets and user reports also highlight that even in Delhi, some ASKs face overflow, technical faults, long queues and appointment-slot unavailability. Official project planning documents mention capacity shortfalls, design estimates, and the need for continuous infrastructure upgrades. With recent concerns for scams, data leakages and privacy



concerns the regulations and procedures have been made more strict and rigid, thus impacting the ability of the general public to avail the services.

In order to (a) identify infrastructure, process, technology, and service delivery bottlenecks and (b) quantify the social impact of these factors on citizen accessibility and satisfaction, our survey attempts to generate citizen-centered and local-level data regarding Aadhaar Seva Kendras and Enrolment Centres in Delhi.

To put it simply, we aim to assess ASK performance at the micro level, which is an underappreciated part of the research, rather than focusing just on macro-level policy declarations. We will examine how technology affects individuals and how interwoven it is into their life.

Literature Review

I. Background and Evolution of Aadhaar

Aadhaar, which translates to the Hindi word 'Foundation', is a biometric identification system implemented in India in 2009. It aims to create a comprehensive database of biometric and demographic information about citizens, ensuring the smooth and orderly provision of government services without corruption or delay, and providing an official identification card. The Unique Identification Authority of India (UIDAI) was established as an attached office of the Planning Commission in 2009 for the purpose of granting a unique identification number under the name Aadhaar to each citizen.

On 1 January 2013, the government launched the Direct Benefit Transfer (DBT) programme to achieve the aim of providing different government benefits and subsidies to the citizens directly by using the biometric and demographic information of Aadhaar.

Aadhaar was established to reduce social and economic exclusion and to provide essential government services to all, including those in poverty, at no cost and with minimum delay or hassle.

Under Aadhaar, a unique number is assigned to each Indian citizen after taking two important biometrics: fingerprints and iris scan. The demographic and biometric information is then stored in a secure depository from where all the information can be verified online.

Under the Direct Benefit Transfer (DBT) system, subsidies and benefits are received directly by the recipients, guaranteeing delivery to genuine recipients. This government initiative, thoughtfully designed and seamlessly integrated, supports vulnerable populations effectively. To ensure transparency, eligible citizens are verified by the government with the help of the Central Plan Scheme Monitoring System (CPMS), after which Aadhaar details are used to ensure smooth and direct transfer of funds.

In March 2016, the Aadhaar Act, or Targeted Delivery of Financial and Other Subsidies, Benefits and Services Act, was passed by the government. The law expanded the scope of the Aadhaar programme and made several uses of Aadhaar mandatory. The bill was passed as a "money bill", meaning it was framed as part of a wider budget legislation and wasn't subject to full debate and voting as a standalone bill by a Parliamentary committee. Later, in September 2016, amendments further expanded the powers of the UIDAI and provided the government with increased access to Aadhaar data, including broad powers to share this data for law enforcement purposes.

As per the Aadhaar Act, UIDAI was formally established as a statutory body which operates under the Ministry of Electronics and Information Technology.

The UIDAI performs enrolment and authentication under the Aadhaar Act 2016, which means managing the operations related to



Aadhaar at every step of the way, developing a policy on the procedure and system for issuing an Aadhaar number to an individual, performing authentication, and ensuring the security of identity information and authentication records of individuals.

The UIDAI has set up special centres called 'Aadhaar Seva Kendras' (ASK) for providing all Aadhaar-related services for both new applicants and existing Aadhaar number holders at a single place. These centres are established specifically for the purpose of providing Aadhaar services to the citizens in a convenient and accessible setting. These ASKs are wheelchair-friendly and have special infrastructure to accommodate the elderly and the specially abled. They operate every day, from 9:30 AM to 5:30 PM.

In today's world, an Aadhaar number is important for a variety of activities in India, such as filing taxes, applying for and receiving school scholarships, booking railway tickets, participating in religious worship at some private temples, and securing public-sector jobs like teaching and healthcare roles. While linking Aadhaar to banking, health records, and insurance programmes is not strictly mandatory, it is highly encouraged. The Aadhaar card has become essential for many routine tasks, prompting the establishment of systems to register newborns with Aadhaar directly in hospitals. Additionally, Aadhaar enrolment is now required for accessing services such as children's midday meals, training and medical aid for persons with disabilities, anti-retroviral treatment for people living with HIV, and rehabilitation programmes for women and others seeking to escape prostitution.

The mission of the UIDAI and the Aadhaar scheme can be summarised as follows:

- Enable good governance through efficient, transparent, and targeted delivery of subsidies and services funded by India's Consolidated Funds to Aadhaar holders using unique identity numbers.
- Establish necessary systems and policies to provide Aadhaar numbers to citizens, including demographic and biometric details and provide them with services to update and change these details when required.
- Maintain a stable and safe technology infrastructure to provide Aadhaar services, which can be expanded and updated according to the requirements, and ensure the confidentiality of citizen data.
- Build a sustainable organisation which can form rules and regulations according to the provisions of the Aadhaar Act to ensure compliance.
- Provide online authentication services to curb leakages and wastage.
- Eliminate duplicate and fake identities by providing a unique identification number to each resident.

II. Analysing the Operational and Infrastructural Efficiency of Aadhaar Seva Kendras

Aadhaar Seva Kendras, as quoted by the official Unique Identification Authority of India (UIDAI) website, are a 'one-stop' destination for all services related to the Indian Aadhaar Card. On 31st March 2025, the government planned to increase the number of Aadhaar Seva Kendras

from 88 currently to over 470 in the coming years due to a massive increase in daily transactions up to 7,50,000 and new enrolments by 75,000. It further released a proposal inviting large facility management firms to set up and operate these centres.

However, despite such bold moves to meet the high volume demand, there have been numerous gaps in terms of performance, efficiency, transparency and infrastructure.

According to the Comptroller and Auditor General of India (CAG)'s 2021 performance audit of UIDAI, several gaps were found in the Aadhaar enrolment and update ecosystem in the ASKs. The audit observed that UIDAI had accepted a large number of enrolment packets containing poor-quality biometric data, which later forced residents to undergo high volumes of voluntary biometric updates at their own cost. The CAG also recorded multiple cases of duplicate or invalid Aadhaar numbers, indicating weaknesses in the de-duplication and quality-check process. It further noted that UIDAI did not analyse the underlying causes of authentication failures, despite the widespread usage of Aadhaar to access services. Additionally, the audit found weak enforcement of mandatory IT and Information Systems (IS) audit requirements for Authentication User Agencies (AUAs), Authentication Service Agencies (ASAs), and other service providers. It even found that UIDAI had not imposed penalties even when service-level agreements were not met.

Mangal Tower, Jharkhand: An ASK in Kantatoli, Ranchi, popularly known as 'Mangal Tower' among most of Jharkhand's

population, along with some from Bihar and West Bengal was surveyed recently.

Based on an interview conducted among over a hundred individuals by The Wire in August 2025, there were major concerns stemming from the high rejection rates at the Kendra, further compounded by the increased centralisation of the facility. Many respondents also attributed the lack of a well-defined process to a recurring pattern in Aadhaar, stemming from the continuous changes in legislation. While the Aadhaar (Enrolment and Update) Regulations, 2016, established broad rules, the 2024 amendment introduced new requirements, such as updating documents "on completion of every period of 10 years from the date of generation of the Aadhaar number assigned to him". Statements such as "in accordance with such process as the Authority may specify" create ambiguities that hinder citizens' ability to submit grievances when these processes are not followed. Additionally, the lack of response to calls to the toll-free number 1947 and the refusal of ASKs to accept such applications led to many difficulties for citizens.

Digital Empowerment Foundation's 2023 Perception Survey on Aadhaar-Based Service Delivery

The survey revealed persistent gaps in the efficiency and inclusivity of Aadhaar Seva Kendras (ASKs). Despite widespread enrolment, nearly one in five rural respondents reported travelling over 10 km to reach a centre, which points to weak locational coverage or a flaw in the efficiency of nearby Seva Kendras. Service efficiency was also substandard, with



42% facing long wait periods (often exceeding an hour) and 31% requiring repeated visits owing to biometric failures. Lack of transparency was also fortified as a significant weakness, with 36% of respondents being unclear about official fees, and 15% reporting being charged extra, while only half of the centres displayed their fee boards prominently. Grievance redressal mechanisms were slow and ineffective, with 40% of complaints unresolved and resolution times averaging more than a fortnight. Such signs pointed towards dissatisfaction with the Kendras, particularly amongst the marginalised communities, with major concerns related to identification, transparency, inclusivity and effectiveness.

Dependence on Aadhaar Seva Kendras

A study by CDFI reveals that 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 enrolment centres, with a staggering 68% of respondents preferring the offline kendras in terms of seeking guidance or information. This also stems from the inaccessibility and difficulty in understanding the UIDAI's website, the lack of updated information, language barriers, as well as irregularity in chatbot availability.

Survey results revealed that despite such preferences of the customers, the long waiting period, accompanied by a lack of awareness among the staff, poses a challenge towards availing Aadhaar services to the best of their potential. 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. A reason for the same, which is leading to various inconsistencies, could be the absence of a mechanism for training the staff, which is what UIDAI Regional Offices and Enrolment Agencies are responsible for.

ResearchGate Study on Aadhaar-Enabled Service Delivery (2023)

The study found that Aadhaar enrolment has reached over 90% of India's population, but rural and marginalised groups still face barriers due to limited centre availability and poor quality. Further, in terms of infrastructural weaknesses, a significant proportion of centres surveyed reported frequent internet disruptions and power failures, directly affecting the throughput and reliability of enrolment/update services. The service efficiency also revealed various shortcomings. Average waiting times at centres were reported to be 30–60 minutes, with peak hours stretching beyond this, reflecting inadequate staffing and poor queue management. Additionally, around 15% of respondents reported being charged unofficial fees for updates or corrections, despite UIDAI's prescribed fee structure, showing weak monitoring of ASK operations. The study also found that over one-third of complaints remained unresolved or took more than two weeks to close.

Biometrics and Identification

One of the main premises behind Aadhaar was that using biometrics such as fingerprints and iris scans would make sure every person received

a unique number. This assumed that biometric technology could work smoothly for India's huge population, that its limitations would not cause problems, and that enrolment procedures would always be followed correctly. In practice, this has not always been the case. For example, in 2012, when about 22.9 million Aadhaar numbers had been issued, nearly 384,000 had to be cancelled because they were fake. These fake numbers were created because proper enrolment rules were not followed. The Comptroller and Auditor General (CAG) reported that Aadhaar numbers were sometimes generated without complete documents, and biometric checks were not always reliable. A 2023 survey by the Digital Empowerment Foundation found that 27 per cent of respondents had problems with fingerprint matching during updates, often forcing them to visit centres multiple times.

III. Socio-Economic Impacts, Gaps, and User Experiences

Aadhaar has become India's largest biometric identity system and has numerous implications in the socio-economic sphere. With greater policy enforcement to ensure greater integration, Aadhaar's socio-economic footprint spans empowerment through Direct Benefit Transfers, which ensure welfare delivery efficiency and mitigate exclusion risks, and lack of time feasibility, etc., especially in the case of marginal sections of the population.

The Dalberg State of Aadhaar 2019 Report

The report emphasises the far-reaching penetration of Aadhaar in different parts of the

country, with 92% of the adult population holding an Aadhaar card and more than 80% claiming to have received greater socio-economic benefits, including pensions, food subsidies, MNREGA wages, etc. Yet, the reports reveal a greater satisfaction paradox where a significant proportion of the population faces various obstacles in updating their details, along with biometric failures. As a result, this not only impacts the efficiency of the entire system but also causes these people to suffer as they are unable to access the benefits of various schemes to which they had been initially entitled. Thus, Aadhaar, which was initially claimed to be a tool of social inclusion, is now becoming a cause for exclusion, and it disproportionately impacts the vulnerable groups. The report highlights major barriers to access and challenges faced in enrolment, data updates and service usage while analysing user satisfaction. Based on the survey, it was found that although enrolment rates are high, there is a higher probability of Aadhaar cards containing errors, ranging from demographic to biometric mistakes. This raises a big question about the credibility of data accuracy. These inaccuracies disproportionately affect certain demographics, including females and those with lower educational backgrounds, as well as children, whose error rates are similarly around 3-4%.

These basic services are also provided by Common Service Centres (CSCs); however, with the passing of time, many local Aadhaar centres have been blacklisted due to inconsistent document verification during applications. Aadhaar operators viewed this increasing centralisation as a means to prevent undocumented migrants from obtaining Aadhaar numbers. The underlying assumption is that anyone who does not yet have Aadhaar,



or valid documents to update their Aadhaar, must not be a citizen of the country. This recurring narrative is used to justify the centralisation of Aadhaar enrolment and updates. However, the unavailability of adequate infrastructure and the lack of time feasibility further widen the existing gaps in society.

Data Inaccuracies

Inaccuracy of data is a major reason why people fail to avail the benefits of various welfare schemes, as a result of authentication failures, mismatches and lack of redressal mechanisms. Additionally, exclusion raises concerns about the vulnerability of poor sections of the population who lack digital literacy and are often the victims of language barriers, which further makes the enrolment process complex for them. A major part of our survey would involve collecting responses from walk-in customers to get a comprehensive understanding of the problems faced by them and their impact on their access to welfare schemes. This would help to analyse the impact of government policies related to Aadhaar integration and whether they have actually helped or been counterproductive.

In the current system, the enrolment process for Aadhaar requires verified documents, unlike in the past, and due to a lack of information, various Aadhaar cards were not updated, thus leading to their cancellation. Though Aadhaar cards are not proof of date of birth, many targeted schemes that require age proof accept Aadhaar. To get a verified DOB printed, one has to show either a verifiable birth certificate or an exam marksheet. Such stringent documentation processes disproportionately exclude rural

populations with low literacy rates and limited document access. All documents are required to have QR codes for digital verifiability, which means older documents, such as birth certificates and voter IDs, without the code are often considered invalid. Thus, the primary objective of introducing Aadhaar is to authenticate identities and eliminate duplication in availing welfare schemes; however, these policies may become a major reason for the exclusion of vulnerable groups from society.

IV. Security, Privacy, and Legal Critiques

This literature review identifies significant deficiencies in the security, privacy, and legal frameworks of the Aadhaar project, drawing upon expert analyses from technical, auditing, and judicial authorities. It is focused on four main areas: the centralised security risks associated with the CIDR architecture; operational failures like high duplication rates confirmed by the CAG; Lack of Accountability in the NLSIR framework; and the limitations imposed by Supreme Court rulings in the purview of the fundamental right to privacy.

Data Security

The data security architecture of Aadhaar reveals an existential threat to informational privacy. Researchers from IIT Delhi's Computer Science department have issued strong warnings that this centralisation is used for pervasive surveillance and profiling, a risk compounded by insider threats and collusion. This concern is rooted in the nature of the data collected: as the Supreme Court dissent noted, a compromised biometric system is compromised forever.

Operational flaws are increasing the risk. The CAG audit confirmed the fact that Aadhaar's foundation is compromised, revealing the cancellation of over 4.75 lakh duplicate IDs. These failures highlight weaknesses in the biometric enrolment process, which fraudsters exploit through vulnerabilities in the authentication models used by UIDAI.

Legal and Accountability Framework

The project's legal and accountability framework is critical. The NLSIR Document reveals a severe lack of accountability, citing that the UIDAI is delegated excessive power without adequate checks and balances, effectively allowing it to act as both operator and regulator. This legal shortcoming leads to operational flaws, notably the "fragmentation" of the grievance redressal system identified by the CAG. Consequently, analysis by Rethink Aadhaar confirms that this fractured grievance structure leads directly to the exclusion of vulnerable citizens from essential welfare benefits due to authentication failures and Data errors.

Supreme Court rulings have imposed necessary limitations, but policy loopholes persist. The nine-judge bench established the Right to Privacy as fundamental, leading to the 2018 judgment that significantly curbed mandatory linkage requirements, such as those for bank accounts and telecommunication services. However, the unchecked expansion of Aadhaar's scope, combined with its de facto mandatory status everywhere, continues to create policy gaps that reduce civil liberties and personal freedom.

A crucial vulnerability is exposed at the point of authentication of the Aadhaar system, mainly because the security rules employed by different service providers are weak and inconsistent. This laxity has resulted in an unending and increasing problem of identity fraud and scams. Fraudsters have become adept at generating fake or altered Aadhaar cards to impersonate people for a range of illegal activities, from setting up fraudulent bank accounts to taking out loans. Their methods range from simple photo editing on scanned documents to using powerful Generative AI tools to create completely new, highly realistic fake IDs. This race between criminals and security tools means a simple picture of an Aadhaar card is no longer reliable as proof of identity. The most important policy failure is that most companies and government agencies do not perform the check for ID properly. They largely use simple scanning software-OCR-that reads the text and confirms some very basic things, such as whether the number contains 12 digits. This limited check is a major flaw. Criminals manipulate this situation by intentionally blurring pictures or changing the text in ways that confuse the OCR system, so the check then has to be manual, where mistakes are common.

Crucially, most verification systems only care about extracting the information and completely forgo whether the document itself has been tampered with. The most prominent oversight has to do with not using inherent security features in the Aadhaar card, namely the secure QR code. This code performs a digitally signed verification against the central UIDAI database. By treating the Aadhaar image as just a static paper document rather than using this cryptographic check, the entire ecosystem has



created an easily exploitable gap that allows fake identities to spread rapidly across a plethora of public and private services. The inability to enforce stringent checks allows fraudulent actors to utilise the relative weaknesses of the system with impunity. Ultimately, the successful deployment of these identity scams fuels the growth of function creep with respect to Aadhaar's scope, as described by Rethink Aadhaar, ensuring a foundational system riddled with fraud is applied to an ever-widening circle of critical services and further eroding the public trust and civil liberties the scheme was legally bound to uphold.

Objectives

This research evaluates the operational efficiency, technological setup, and service quality of Aadhaar Seva Kendras and Enrolment Centres. By examining why citizens visit these centres, from routine profile updates to urgent welfare, school, or banking needs; the study assesses overall capacity, system bottlenecks, and service delivery. Ultimately, it aims to uncover root causes of data errors, evaluate grievance mechanisms and public awareness, and offer practical recommendations to improve the everyday citizen experience.

The rationale behind our analysis is to determine reasons behind the purpose of visits to Aadhaar Seva Kendras in terms of both routine updates (renewal, correction) as well as urgent needs (availing welfare schemes, pension, school admission, banking KYC, etc.)

I. Infrastructural Efficiency

Evaluate the state of infrastructural facilities at Aadhaar Seva Kendras and enrolment Centres, including seating, inclusive infrastructure, certified biometric devices and enrolment kits.

II. Technological Analysis

Analyse the functionality of biometric systems, online appointment portals, token distribution mechanisms, and real-time data entry systems.

III. Operational Efficiency

Examine average waiting times, token-to-processing ratios, and the number of successful updates/enrolments per day, and the gap between official and actual service capacity.

IV. Ease of Processes

Assess the convenience and straightforwardness of the processes of enrolment, biometric or demographic updates, and document verification for citizens, including clarity of instructions and overall inclusivity.

V. Grievance Redressal Mechanism

Check the effectiveness of the system that handles grievances, the availability of the help-lines (such as 1947), and the support provided by the staff.

VI. Overall Public Knowledge

Determine the level of awareness among citizens regarding Aadhaar-related processes, new developments under UIDAI, required documents, online booking options, and updated procedures.

VII. User Satisfaction and Perception

Understand overall public satisfaction levels by evaluating interactions with staff, overall transparency, effectiveness, as well as efficiency of the services provided.

VIII. Analysing the Data Accuracy of the System

Analysing the purpose of visits to these Centres and understanding the frequency of people who come to update their edits, as a result of errors in the data. The idea is to understand the inefficiency existing in the system.

“Mera Aadhaar, Meri Pehchan”



1.4+ Billion
Identities Issued



1,300+ Schemes
DBT Welfare Programmes



₹5 Lakh+ Cr
Cumulative Fiscal Gains



470+ Centers
Targeted Expansion of ASKs



18,000+ Cr
Total Aadhaar Verifications

UIDAI & CIDR Powered
Statutory Regulatory Oversight



आधार सेवा केंद्र
Aadhaar Seva Kendra

Policy Framework

The Aadhaar Act, 2016 aims to provide for, as a good governance measure, efficient, transparent, and targeted delivery of subsidies, benefits and services, the expenditure for which is incurred from the Consolidated Fund of India, to individuals residing in India, through the assignment of unique identity numbers to such individuals. The 2019 amendment extended the Aadhaar framework to state-funded welfare as well.

Establishment of UIDAI

Under section 11 of the Act, the central government was required to establish the Unique Identification Authority of India (UIDAI) as a statutory body, corporate with perpetual succession. It is mandatory under section 23(1) to develop the policy, procedure, and systems for issuing Aadhaar numbers to individuals and perform authentication thereof under this Act. Under section 23A, it may issue binding directions to any entity in the Aadhaar ecosystem, and under section 54, it has the power to make regulations on all substantive, operational matters, such as demographic and biometric information, requirements, enrolment and update processes, authentication conditions, sharing of information, and fee structure.

Section 6 permits UIDAI to require Aadhaar number holders to update their demographic and biometric details from time to time to ensure accuracy of their information in the CIDR.

Grievance Provisions and Citizen Complaints

Section 23(2)(s) requires UIDAI to set up facilitation centres and a grievance redressal mechanism for redressal of grievances of individuals, enrolling agencies, and other service providers. Thus, an Aadhaar card holder can now file complaints directly with respect to specific offences under sections 34 to 37, 40, and 41, relating to impersonation at enrolment, disclosure of identity information, and non-compliance with intimation requirements.

Enrolment and Update Framework

The operational rules governing enrolment and update were set out in the **Aadhaar Enrolment and Update Regulations 2016**. Under Regulation 9, the enrolling agency must inform the individual, at the time of enrolment, of

- (a) the manner in which information will be used;
- (b) the nature of recipients with whom information is shared during authentication;
- (c) the existence of a right to access the information and the procedure for making such requests.

For minors, this disclosure is to be made to the parent/guardian, and for incapacitated people, to their legal guardian.

Under Regulation 16A, an Aadhaar number holder is required to update their documents



evidencing proof of identity and address at least once every ten years from the date of generation of their Aadhaar number to help ensure the accuracy of information with the CIDR. This may be done:

- At an enrolment centre by presenting original documents and undergoing authentication
- By electronically uploading copies of documents on the UIDAI website or mobile application
- By giving consent for the electronic obtaining of the information from government databases.

Regulation 19(3) imposes limits on the frequency of updates of date of birth, which can be updated once, gender also once, and name twice. Beyond this threshold, updates are subject to an exceptional handling process specified by the UIDAI. Regulation 20 authorises UIDAI to set fees and authorise registrars, agencies, and other service providers to collect them and not exceed such amount as the authority may specify. They fix and revise these fees by notification. The current fee structure was last reviewed on 16th August 2026, published on the official UIDAI Aadhaar Seva Kendra page.

Equipment and Software Certification

All equipment used in enrolment must meet stated specifications and only UIDAI-provided software should be used. Service providers must ensure that operators, supervisors, and other enrolment staff are duly certified through a certification process specified by the authority.

Enrolment Centre Types

Regulation 7(3) provides that enrolment can be carried out at permanent enrolment centres through temporary centres set up for the purpose. The opening of enrolment centres should follow operational guidelines, which have been specified by UIDAI.

The regulations explicitly contemplate both in-person and online update processes. Updates via the UIDAI website or application require the holder to submit information through an online form and upload electronic copies of necessary documents for updating the name, address, date of birth, and gender. For biometric updates, an in-person visit to a centre is necessary.

Aadhaar Service Delivery

UIDAI has established Aadhaar Seva Kendras as dedicated UIDAI-run centres designed as a single-stop destination for all Aadhaar-related services. The following services are available at ASKs:

- Aadhaar enrolment
- Update of any demographic information
- Update of biometric data
- Download and print Aadhaar
- Document update (POI and POA)

These services are available to any individual seeking to enrol or any Aadhaar number holder, including NRIs, at any ASK across the country. All ASKs, as per UIDAI specifications, are wheelchair friendly and have special provisions for the elderly or specially abled. This is an operational standard for the ASKs.

It is consistent but goes beyond the legal requirement under Section 5 of the Aadhaar Act, which requires special measures for the issuance of Aadhaar to vulnerable categories. UIDAI prescribes that they offer a comfortable air-conditioned environment as part of their operational standards, not a regulatory mandate.

Beyond ASKs, the Aadhaar ecosystem includes permanent enrolment centres operated by banks, post offices, BSNL offices, and state government offices. They are operated by registrars and enrolling agencies, which have been appointed under the Enrolment and Update Regulations, but not directly by UIDAI. They are subject to the same regulatory requirements.

Authentication and Access to Services

Authentication is governed by sections 7 and 8 of the Act. It is defined as the process by which an Aadhaar number, along with demographic information of an individual, is submitted to the Central Identities Data Repository for verification on the basis of information available.

Section 7 states that the central or state government may not necessarily require Aadhaar authentication as a condition for receiving benefits of a subsidy or service for which expenditure is incurred from the Consolidated Fund of India, and does not make Aadhaar authentication mandatory for all government services, but can also be offered to individuals with alternate and viable means of identification.

Biometric & Aadhaar locking under Regulation 11 of the 2021 Authentication Regulations:

an Aadhaar number holder can permanently lock their biometrics and temporarily unlock them when needed for biometric authentication.

Protection and Grievance Framework

The Aadhaar Act establishes a self-contained data protection framework applicable within the ecosystem. As noted in section 4.7, Aadhaar number holders can lock their biometrics or their Aadhaar number, preventing any authentication while the lock is active. This self-service privacy control is available at no charge.

Regulation 32 of the enrolment and Update Regulation requires UIDAI to set up a contact centre to resolve queries and grievances, accessible via toll-free numbers and email. The Act provides criminal penalties for impersonation at enrolment centres, changing the biometric information of another, and unauthorised access to the CIDR. UIDAI has special enforcement powers against entities in the Aadhaar ecosystem for committing the above offences.

The framework described in this section, thus, establishes a formal ideal against which primary survey findings from Delhi's Aadhaar Ecosystem will be assessed.



Methodology

In-person surveys were conducted to obtain primary data for the report and develop a comprehensive understanding of the Aadhaar ecosystem in Delhi. The survey was designed to capture diverse perspectives not only from users of Aadhaar-related services but also from stakeholders responsible for delivering them. A total of **2,530 surveys** were conducted over 10-12 days by a team of 50 surveyors, who were further divided into 13 teams. The survey was structured to cover 26 clusters across **five zones: North, South, East, West, and Central Delhi**.

This sample mapping exercise, involving 26 clusters, was undertaken to identify relevant locations across Delhi before the commencement of the surveys. To understand the Aadhaar ecosystem comprehensively, it was studied through different types of locations that offer services to the customers, including Aadhaar Seva Kendras, Common Service Centres, Post Offices, Banks, and other Aadhaar enrolment and update centres. More than 90 centres were covered as part of the survey. The mapping of these centres was primarily based on geographical accessibility and time feasibility (average time taken to commute from one designated centre to another). The 26 clusters were divided across the five zones to minimise the possibility of findings being driven by a particular locality. Thus, the objective of the mapping exercise was twofold: it assisted in ensuring a large number of centres and improving the representativeness of the primary data collected across diverse regions in Delhi.

To understand the Aadhaar ecosystem, separate questionnaires were designed for the demand side and the supply side. The questions were further framed and customised as per the nature of interaction with different kinds of stakeholders within the stakeholder group. This helped in ensuring that the primary data collected came from diverse perspectives, allowing the study to distinguish between the experiences of demand-side stakeholders and the operational challenges faced by supply-side stakeholders. The 13 teams were assigned locations based on the cluster-mapping. This allowed data collection across different zones and reduced the risk of location-specific factors disproportionately influencing the findings.

The questionnaire was specifically structured to cover both the quantitative and qualitative aspects of the Aadhaar ecosystem.

The demand side comprised the following stakeholder groups:

- Individuals seeking Aadhaar-related services
- Bystanders
- General public (citizens in the vicinity)
- Local shopkeepers

On the demand side, the survey examined awareness of Aadhaar-related services, ease of access, waiting times, documentation requirements, costs and charges, digital accessibility, service quality, and grievance redressal. Local shopkeepers were included to capture perspectives from individuals with

regular interaction with the surrounding community and frequent exposure to Aadhaar-related requirements. The general public helped to assess broader perceptions and awareness of Aadhaar services.

The supply-side stakeholders consisted of:

- Centre operators
- Managers
- Support staff

Engaging with supply-side stakeholders helped in gaining insights into the operational functioning of Aadhaar-related services and the challenges they face. The questions were focused on various factors, including centre footfall, infrastructure, difficulties faced by customers, the nature of assistance available from the government and relevant authorities, and common operational challenges.

The parallel collection of demand-side and supply-side responses allowed the study to compare the experiences of users while also understanding the operational realities faced by the service providers. This helped develop a balanced perspective of the ecosystem instead of relying on a single stakeholder viewpoint.

Following the survey, the responses were organised using Excel. The sample data was reviewed and cleaned to facilitate comparison. The data was further subjected to statistical analysis using Excel and SPSS. More than seven techniques, including LCA analysis, Chi-square test, regression model, etc., were applied to examine relationships, patterns, and variations within the dataset. This allowed the analysis to move beyond descriptive observations and test the robustness of identified trends across

awareness, accessibility, service experience, and other dimensions of the ecosystem.

The methodology combined extensive primary data collection, stakeholder-specific questionnaires, and statistical analysis to develop a comprehensive understanding of the Aadhaar ecosystem. The resulting dataset provides an empirical foundation for examining the accessibility, efficiency, awareness, and operational functioning of Aadhaar-related services in Delhi, while aiding in evidence-based identification of key challenges.



CENTRE PROFILES

Aadhaar Seva Kendras

Estimated Footfall
368



User Satisfaction
71%



Average Proximity
5.12 km



Govt. Benefits
30%

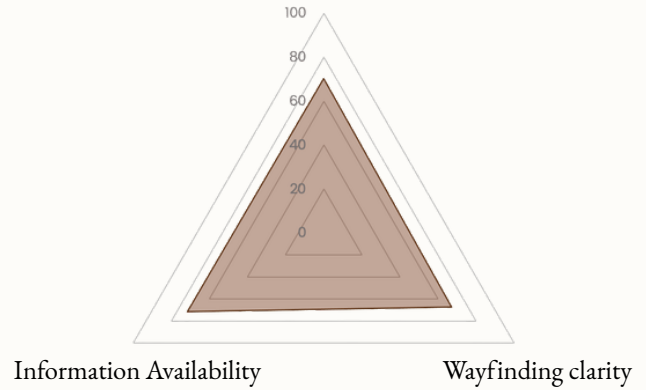


Focus Area

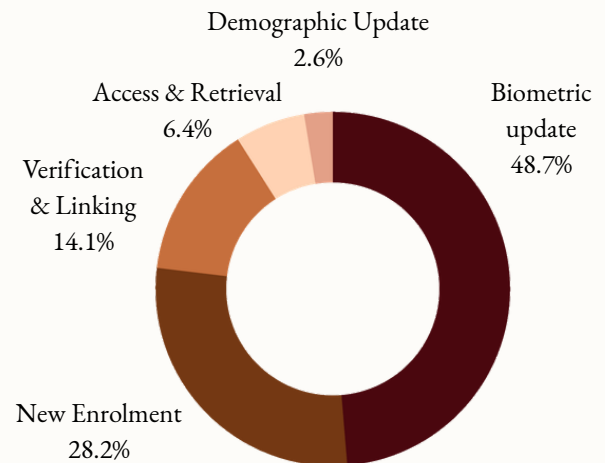
- **Queue Management:** Address peak customer overcrowding
- **Server Reliability:** Reduce portal technical downtime
- **Transit Connectivity:** Improve daily commuter access

Accessibility

Physical accessibility



Services Available



Qualitative Insights

- Dominates volume with an estimated 368 daily footfall & leads overall user satisfaction
- Core utility is heavily anchored in hardware-dependent processes, with biometric updates (48.7%) and new enrolments (28.2%) comprising 76.9% of all visits.
- Maintains the most balanced accessibility profile across physical access, information clarity, and wayfinding (~60%), successfully offsetting the network's longest average user transit distance



Govt. Office Centres

Estimated Footfall
207



User Satisfaction
58%



Average Proximity
3.92 km



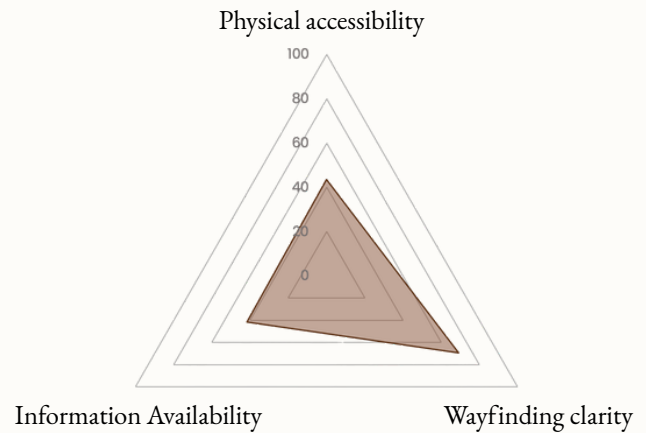
Govt. Benefits
29%



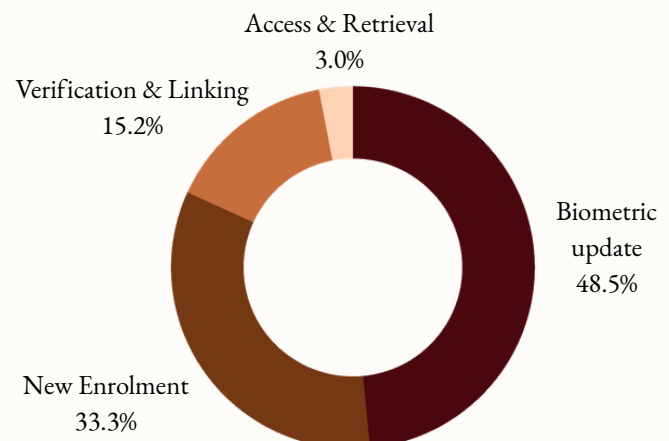
Focus Area

- **Citizen Guidance:** Fix poor premise wayfinding
- **Counter Expansion:** Clear enrolment application backlogs
- **Grievance Redressal:** Streamline official dispute handling

Accessibility



Services Availed



Qualitative Insights

- Handles significant footfall (207 daily) with a strong focus on new enrolments (33.3%) and biometric updates (48.5%).
- User satisfaction lags at 58%, driven by severe infrastructural deficits: wayfinding clarity (~20%) and information availability (~30%) are notably weak.
- While physical accessibility remains decent (~40%) within municipal complexes, poor navigational signposting and procedural ambiguity create substantial friction for citizens seeking primary documentation

Post Office Centres

Estimated Footfall
115



User Satisfaction
61%



Average Proximity
3.71 km



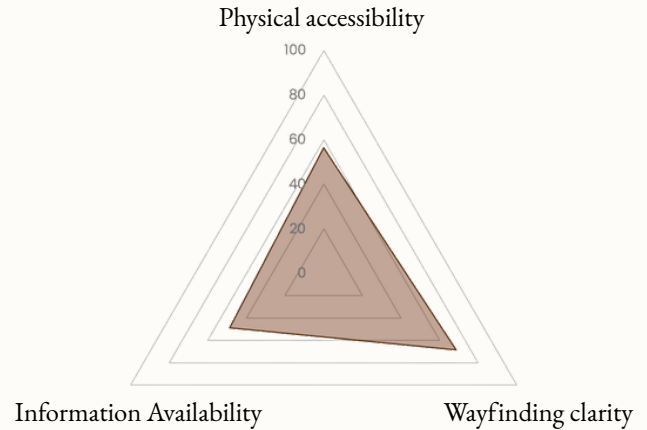
Govt. Benefits
31%



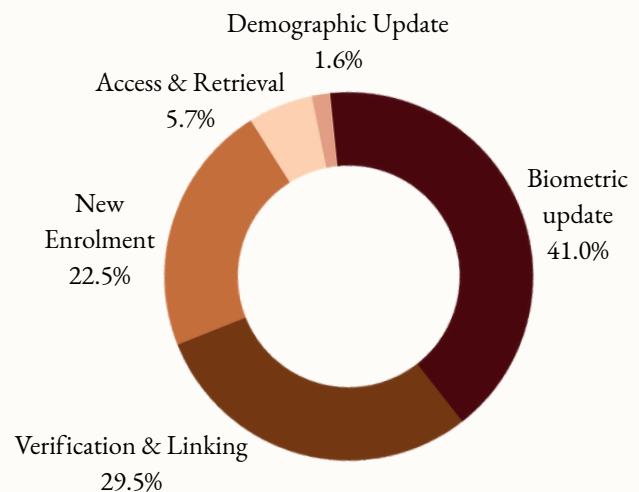
Focus Area

- **Verification Speed:** Set up express counter lanes
- **Premise Signage:** Improve internal building navigation
- **Hardware Upgrades:** Speed up biometric scans

Accessibility



Services Availed



Qualitative Insights

- Exhibits a balanced service mix, serving as a primary hub for verification & linking (29.5%) alongside biometric updates (41.0%).
- Achieves solid 61% user satisfaction, second-highest across all centre models, aided by localised neighbourhood reach (3.71 km proximity).
- Operational strengths lie in accessible physical setups (~55%), though wayfinding within larger postal compounds (~30%) and information clarity (~45%) present clear opportunities for administrative streamlining.

Privately Run Centres

Estimated Footfall
92



User Satisfaction
47%



Average Proximity
4.46 km



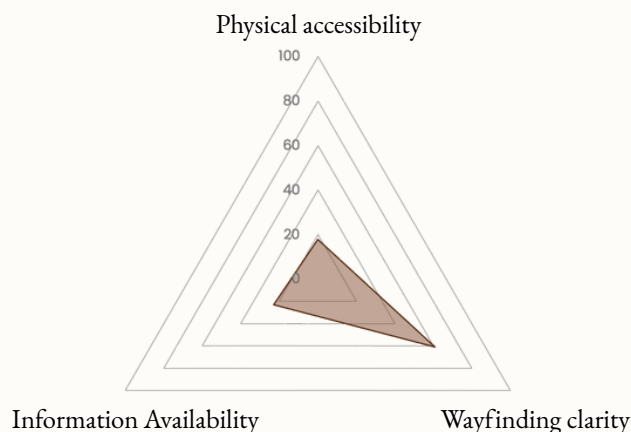
Govt. Benefits
22%



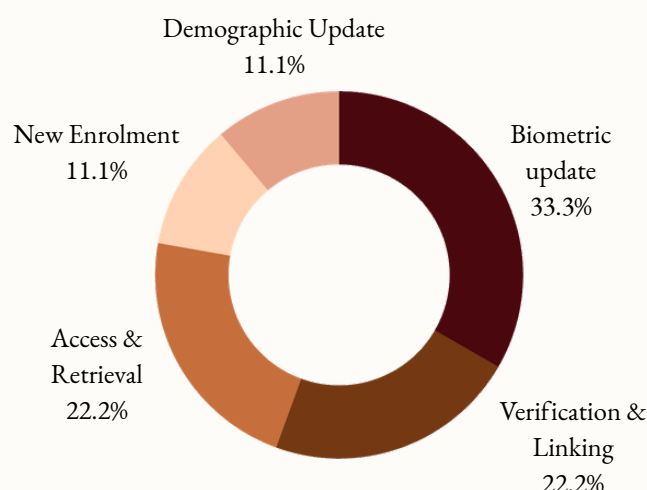
Focus Area

- **Fee Transparency:** Prevent unofficial operator overcharging
- **Space Standards:** Improve physical counter layout
- **Self-Service Tools:** Expand digital record retrieval

Accessibility



Services Availed



Qualitative Insights

- Displays the most diversified service distribution, leading all categories in access & retrieval (22.2%) and demographic updates (11.1%).
- Records a low 47% user satisfaction alongside the lowest government benefit linkage (22%), reflecting trust and quality deficits.
- Physical accessibility is acutely constrained in compact commercial storefronts, though street-level information availability remains moderate due to proactive vendor signage.

Public Bank Centres

Estimated Footfall
185



User Satisfaction
38%



Average Proximity
4.18 km



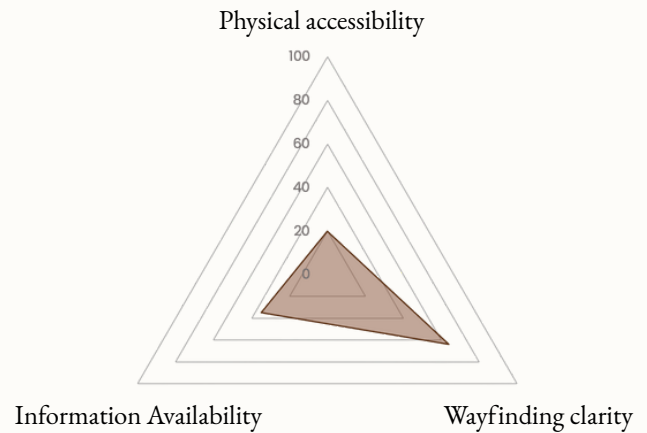
Govt. Benefits
32%



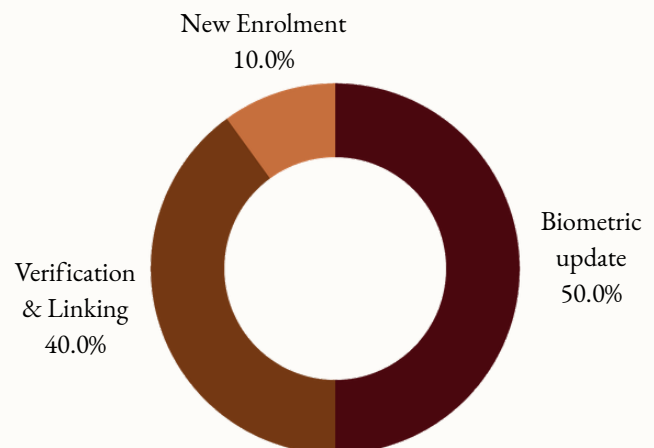
Focus Area

- **Dedicated Staffing:** Eliminate operational service deprioritization
- **Branch Wayfinding:** Make hidden counters visible
- **KYC Integration:** Expedite bank account linking

Accessibility



Services Availed



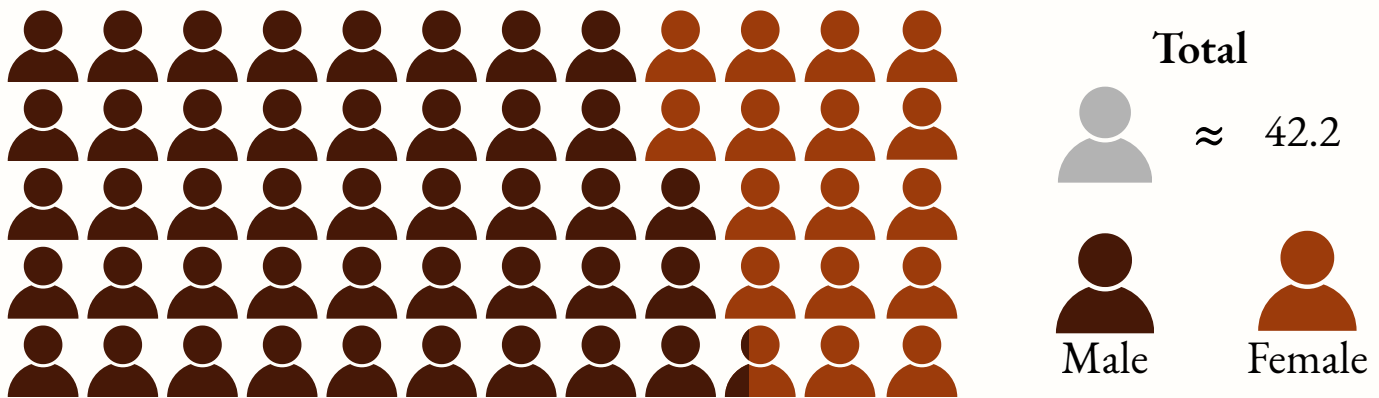
Qualitative Insights

- Records the lowest user satisfaction across the network at 38%, despite handling steady daily footfall (185).
- Highly specialised utility pattern: heavily driven by financial verification & linking (40.0%) and biometric updates (50.0%), with minimal new enrolments (10.0%).
- Exhibits pronounced accessibility gaps, scoring lowest in wayfinding clarity (~20%) and information availability (~20%), as Aadhaar desks are frequently tucked away inside busy commercial banking floors.



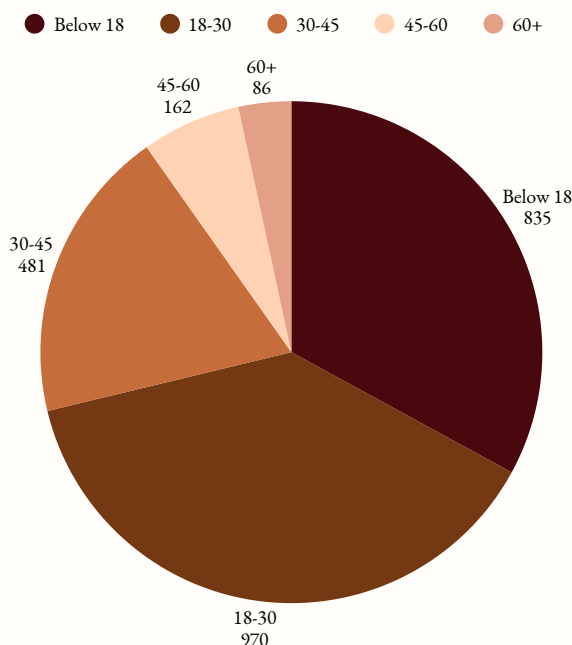
Univariate Analysis

Gender-wise Distribution of Respondents



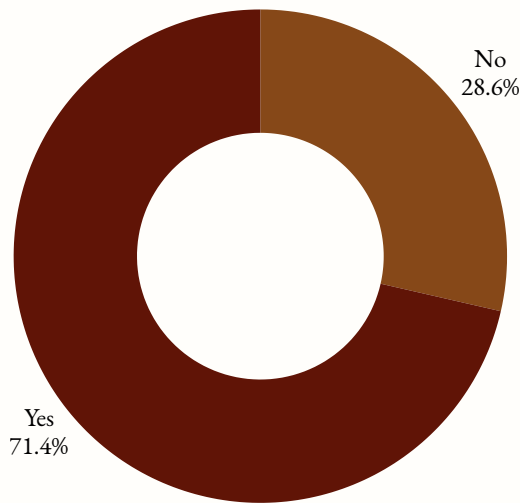
From the graph above, there is a clear gender disparity in the number of people visiting Aadhaar centres. Only about 28% of the 2,520+ participants in the survey are female, indicating that most of the services offered by the Centres depicted a certain degree of male bias, or that the services offered were not accessible to women. It is in line with the current economic conditions that women have little mobility and are digitally illiterate due to cultural barriers. The findings underscore the need to improve women's access to Aadhaar-linked services for more equitable outreach.

Age-wise Distribution of Respondents



From the pie chart, we can observe that there is some degree of variability in the ages of the respondents. There is almost an equitable distribution between the populations belonging within the demographic of 18-60 (that is, the working population), which covers a significant portion of the people that visit the Aadhaar Seva Kendras, indicating that this demographic largely requires Aadhaar related services more than their counterparts that do not constitute the labour force (that is, the people lying in the age groups of below 18 and above 60 years).

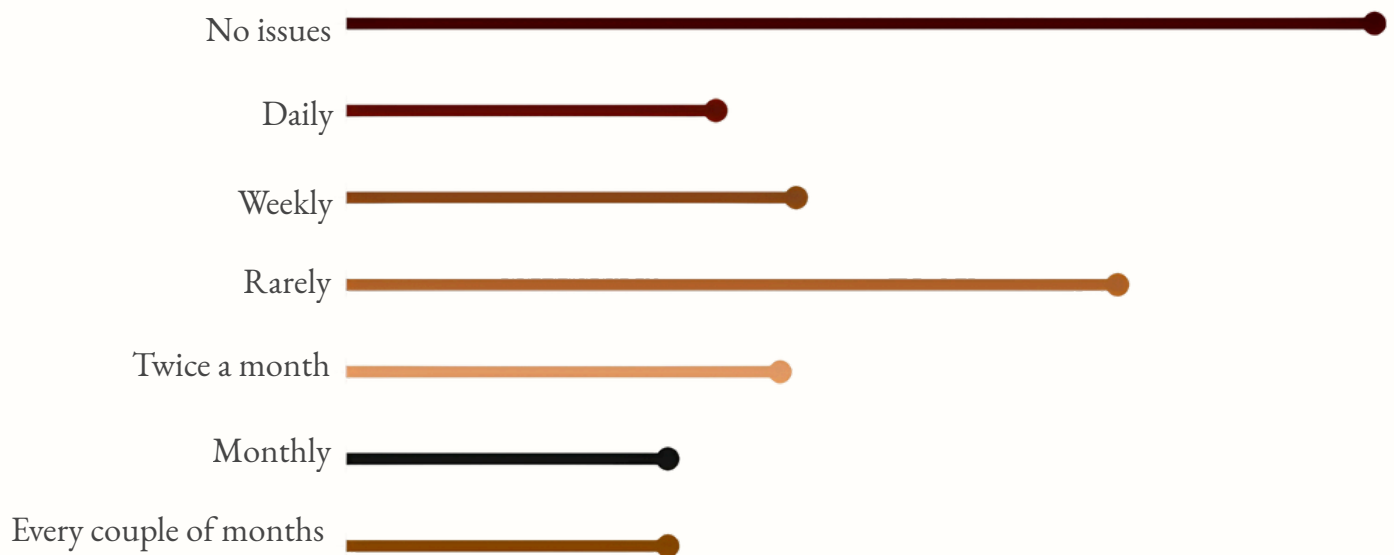
Digital Awareness



This doughnut chart represents the digital divide between people aware of and those without awareness of the online services provided by the government about Aadhaar on the UIDAI website. About 71% of the respondents were aware of this, which shows that digital awareness has reached the vast majority. However, a significant number of people (28.6%) are still out of this loop, particularly in areas with lower digital literacy or limited internet access.

This awareness gap carries real operational costs. Every person unaware that services like address updates, document downloads, or verification can be done online is one more person likely to show up in person at an already-crowded center. Closing this gap wouldn't just be a matter of digital inclusion; it would meaningfully reduce footfall and wait times at physical centers, freeing up staff bandwidth for cases that genuinely require in-person handling.

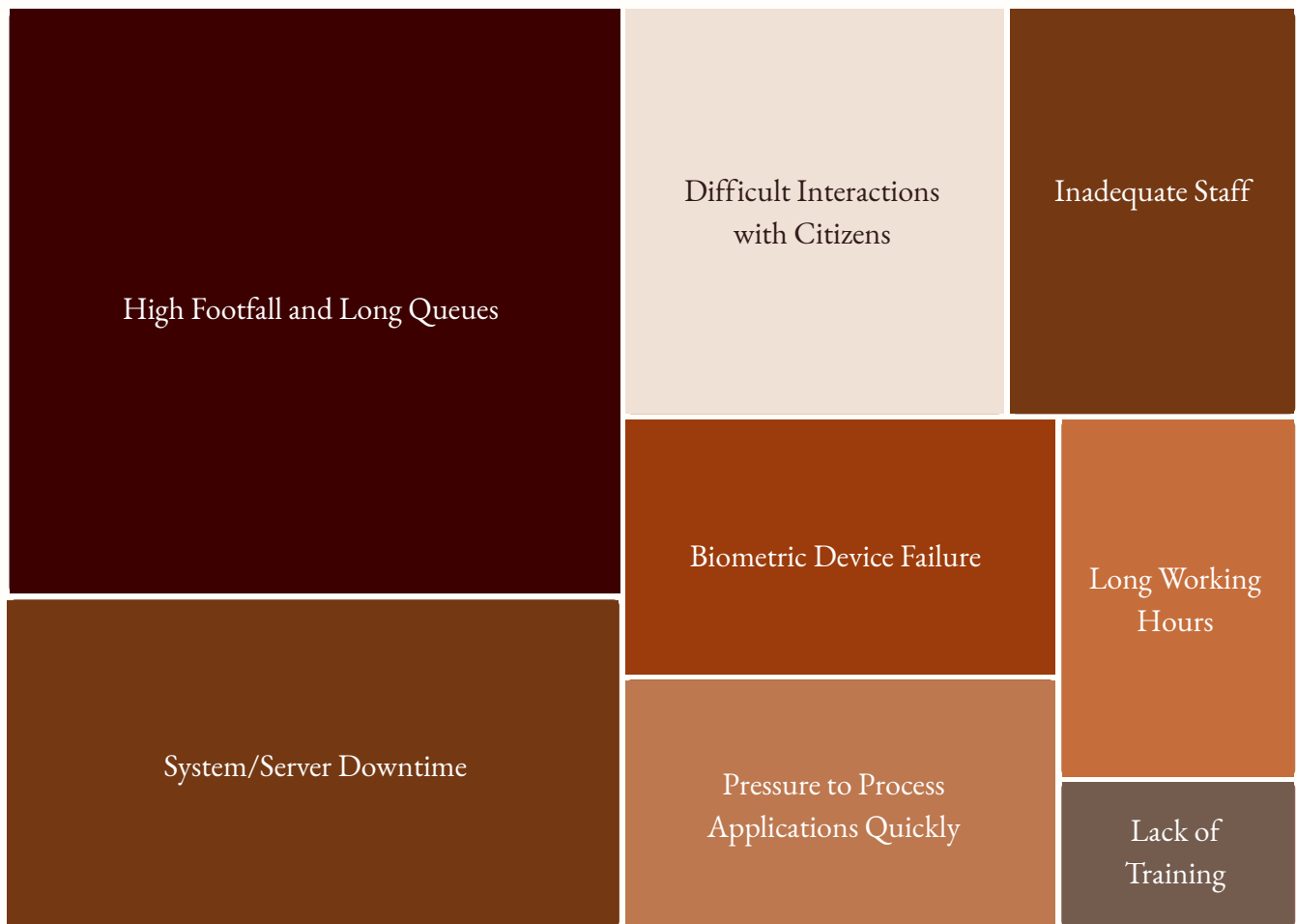
Frequency of Portal Issues



The lollipop chart given above indicates the frequency of issues faced by the customers in Aadhaar centres pertaining to the portal used in various Aadhaar Seva Kendras and Post Office Enrolment Centres. The chart shows “No issues” as the most dominant response, closely followed by rarely, indicating that most of the people availing services face little to no friction. Moreover, among those who face issues, only a small majority face issues very frequently or daily, showcasing that, in the scenario that problems do arise, it is occasional rather than a recurring hassle.



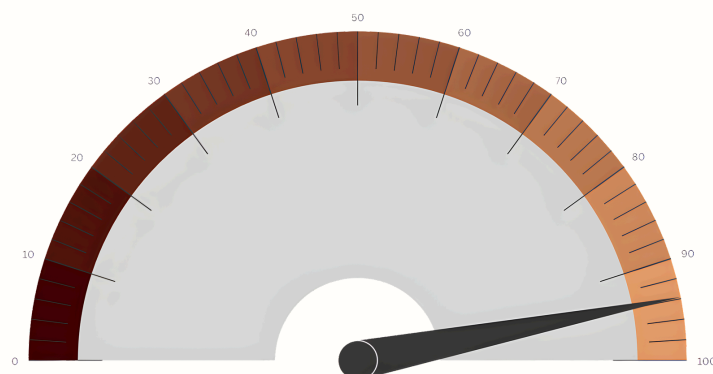
Primary Stress Contributors



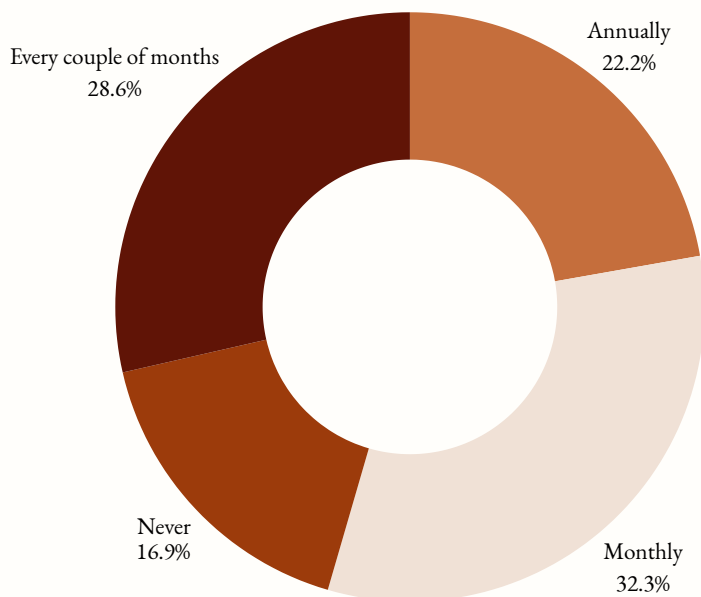
This chart shows the major contributors to employee stress at various centres. High footfall, server issues, and the huge pressure to process applications with speed are the major contributors to stress as per respondents.

Additional Charges

About 94% of the total respondents reported that no additional charge was collected from them apart from the regular charges for Aadhaar updation, showing a high level of transparency.

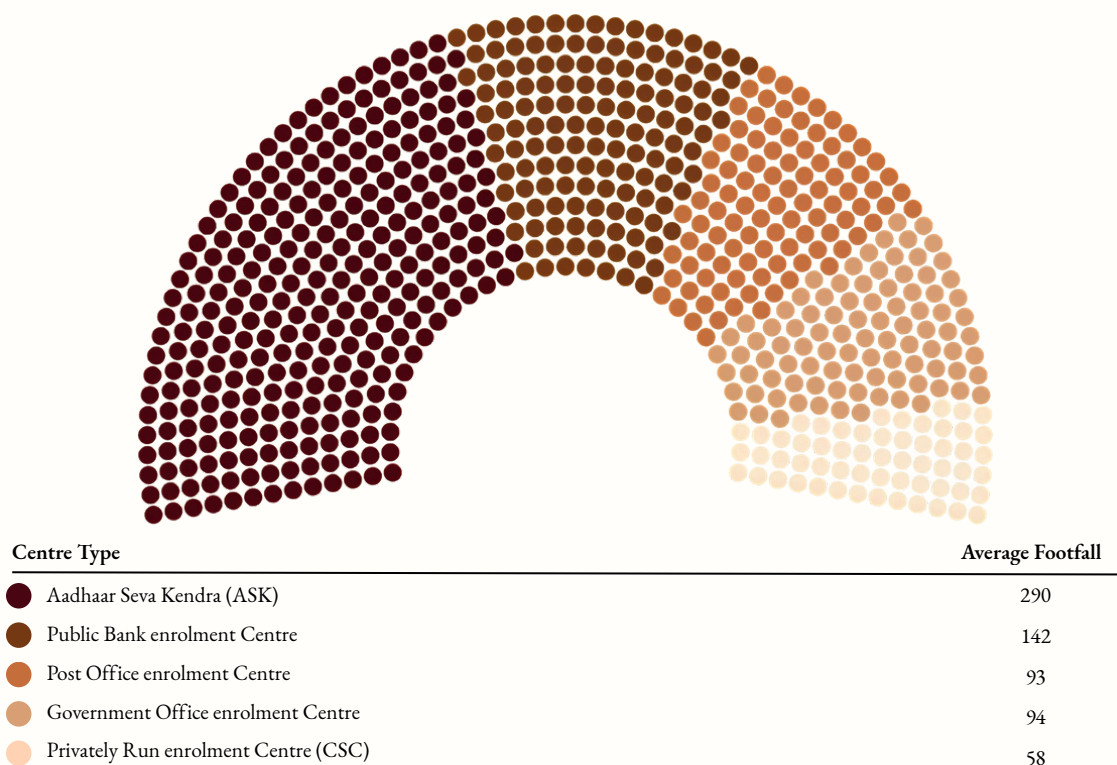


Performance Monitoring



The graph indicates that performance monitoring is conducted regularly at most centres, with monthly audits being the most commonly reported frequency, followed by audits every couple of months. However, a significant share of respondents reported that audits are never conducted, highlighting inconsistencies in monitoring practices.

Average Footfall

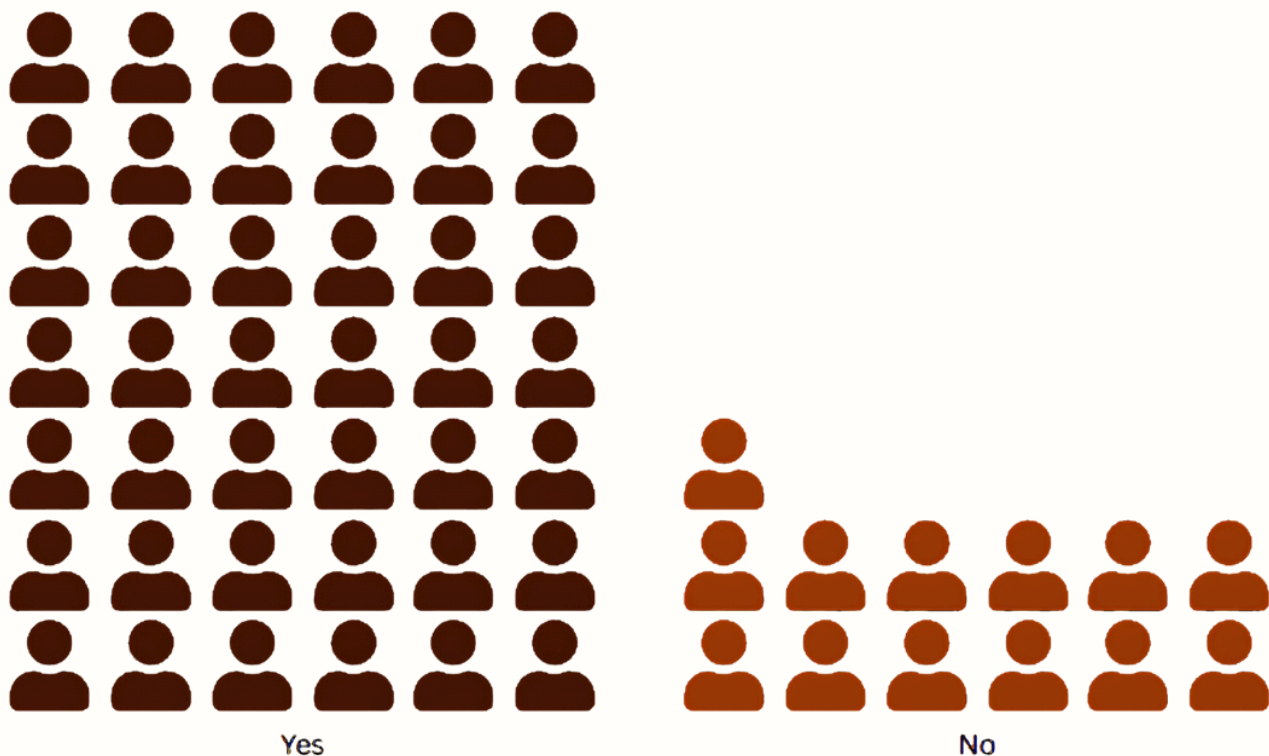


The graph shows that footfall varies by the type of enrolment centre. Aadhaar Seva Kendras experience the highest average footfall, followed by Public Bank Enrolment Centres. Post office and Government office enrolment centres report relatively similar and moderate levels of footfall. Privately Run Enrolment Centres record the lowest amount of average footfall.



Is Aadhaar a Proof of Citizenship?

👤 = 40



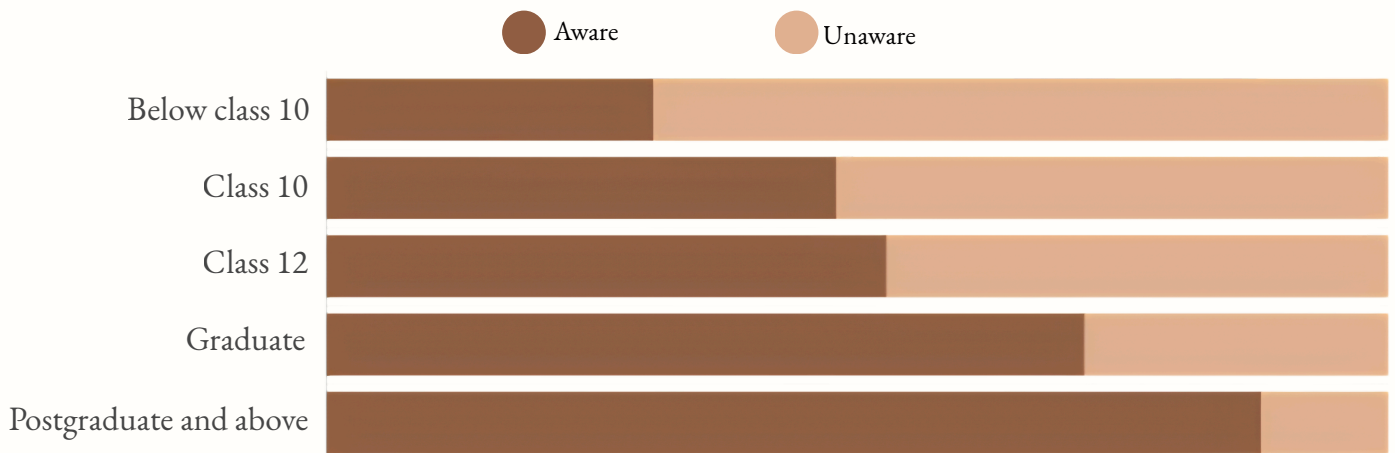
Of the 2,200 individuals surveyed, 1,680 or 76% of them believe that Aadhaar is proof of Indian citizenship whereas only 520 or 24% of the respondents were aware that Aadhaar is not proof of citizenship.

This is a significant gap in public understanding, since Aadhaar, issued by the Unique Identification Authority of India (UIDAI), is explicitly not a proof of citizenship. The Aadhaar Act, 2016, and subsequent UIDAI clarifications have repeatedly stated that Aadhaar cannot be used to establish citizenship, date of birth, or nationality, but is only a proof of Identity and residency.

The misconception, as seen above from the survey result, is due to the universal usage of the Aadhaar system and the way it is used as a standard identification system for all kinds of civic and financial transactions.

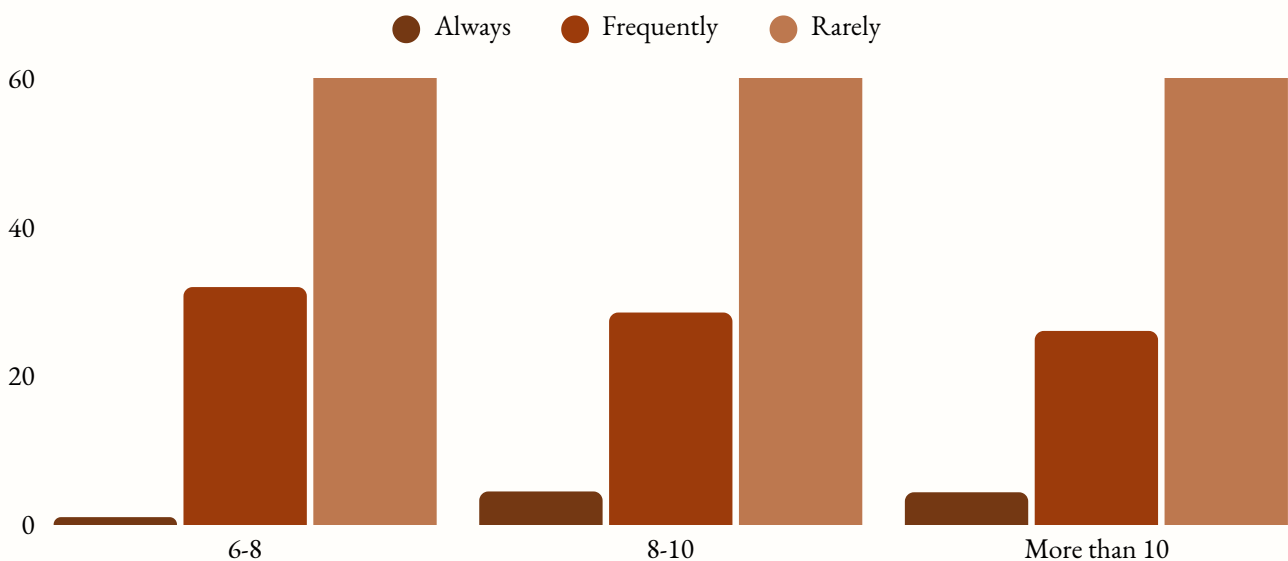
Multivariate Analysis

Relationship Between Digital Awareness and Education Level



It is clearly evident that digital awareness rises steadily with increased education levels with post graduate qualifications showing close to 90% awareness. This highlights a need for simplified, accessible communication for less-educated segments of the population.

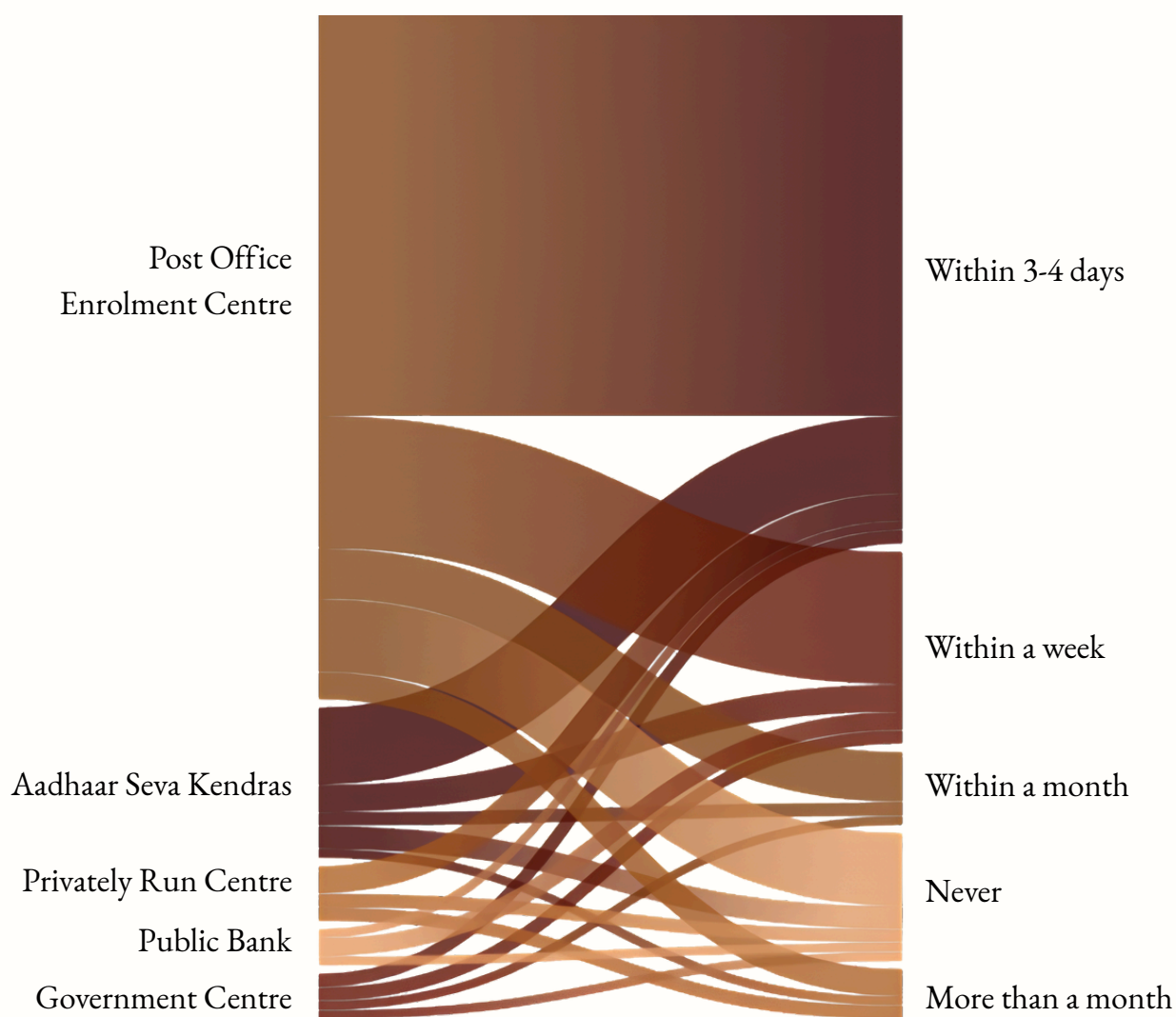
Relationship Between Working Hours and Stress



The categorical bar chart shows that the respondents are mostly unaffected by the working hours, causing them negligible stress (owing to the volume of rare responses irrespective of the working duration). However, there is a slight increment visible in the always responses as the hours increase.



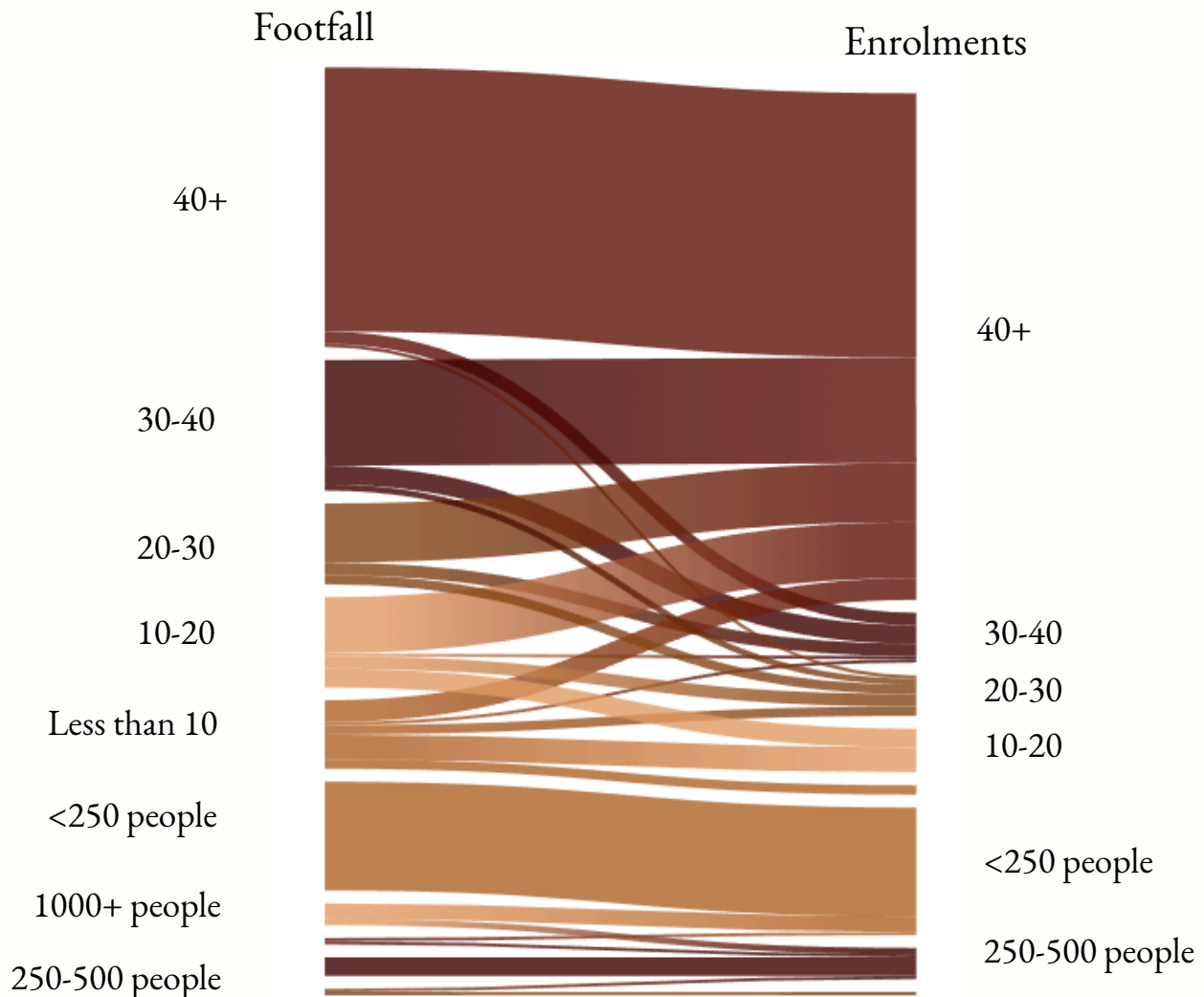
Relationship Between Digital Awareness and Education Level



There are noticeable differences in the speed of equipment failures being resolved among different centres. Post Office Enrolment Centres seem to resolve equipment failures quickly within 3-4 days compared to ASK and small centres (private enrolment centres like CSC, Public Bank Enrolment Centres, and Government Office Enrolment Centres) that make up the bulk of cases in both “within a month” and “more than a month” categories.

It seems ironic that ASKs, being Aadhaar Enrolment Centres, take more time to resolve equipment failures when compared to the Post Office centres, which can be used for other purposes as well. The difference in the resolution time could be due to the extent each Centre utilises the equipment or the manner of management of the equipment.

Relationship between Footfall and Daily Enrolments

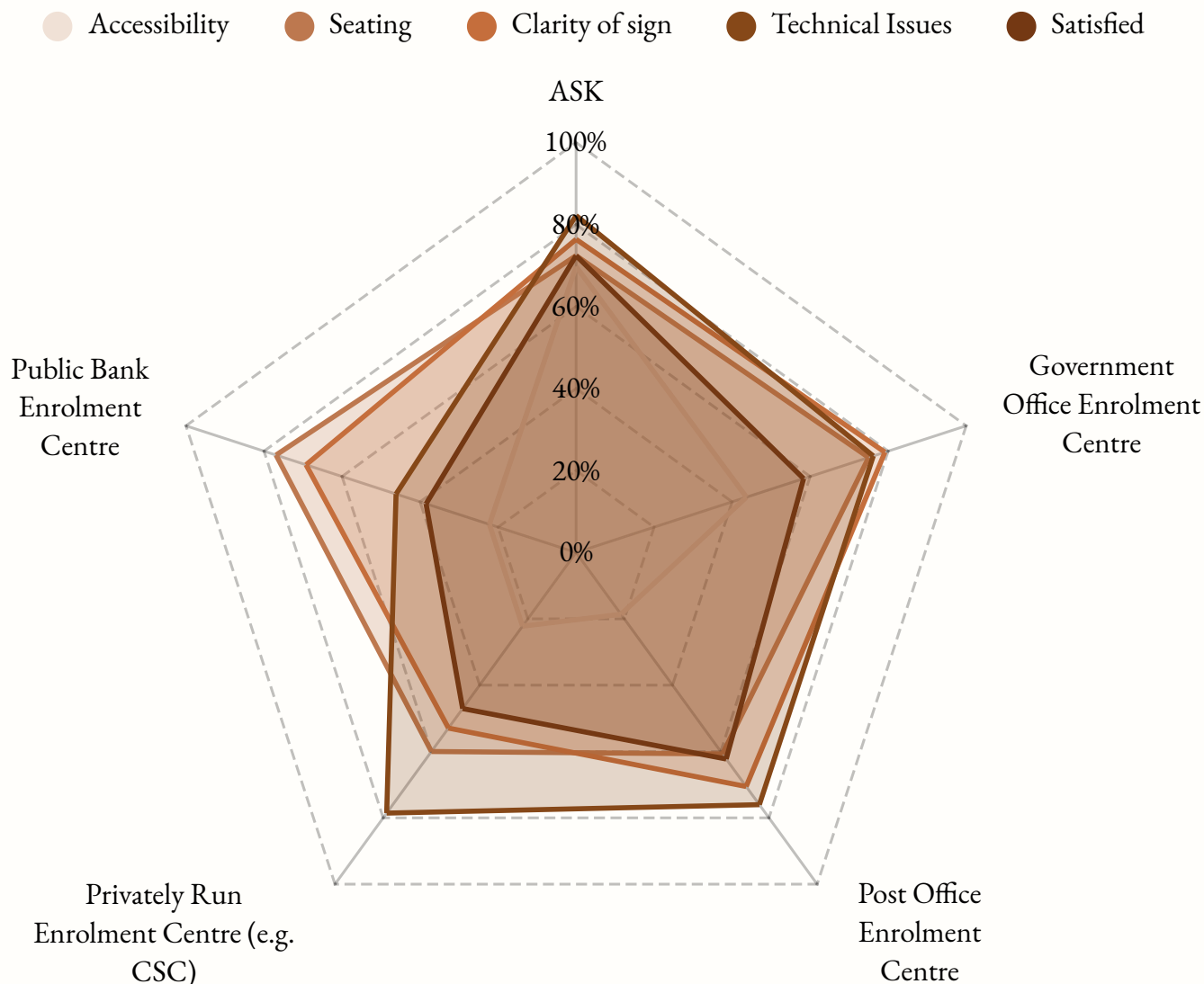


The alluvial chart illustrates the relationship between footfall and the number of successful enrolments across centres. The chart depicts the relative enrolment in comparison to the footfall per centre. Each band shows how many people from a footfall category ended up in a particular enrolment category.

Most centres fall within the 40+ footfall and 40+ enrolment categories, suggesting that centres experiencing higher visitor volumes also tend to record a higher number of successful enrolments. The lighter tan bands show smaller groups (such as “Less than 10” or “Less than 250 people”) spreading across several categories, suggesting more variation or redistribution. Also, the middle bands (20–30, 10–20) split across several enrolment categories, meaning moderate conversion rates.



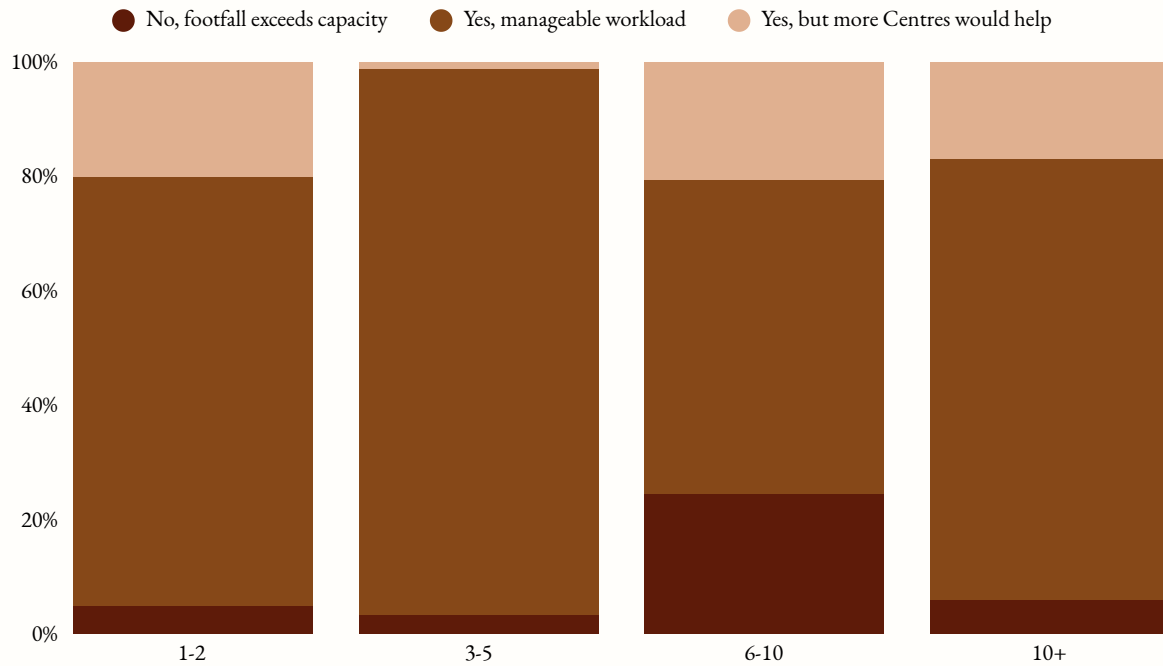
Relative Performance Across Centre Types



This radar chart compares 5 categories of Aadhaar enrolment centres across 5 parameters: Accessibility, Satisfaction, Technical Issues, Clarity of signboards, and Seating Availability. Aadhaar Seva Kendras consistently form the outer boundary across every parameter, highlighting that they outperform other centres on most fronts. The other Centre types show closer and overlapping scores, suggesting equitable performance among them; however, there is a clear scope for improvement in Accessibility for other centres.

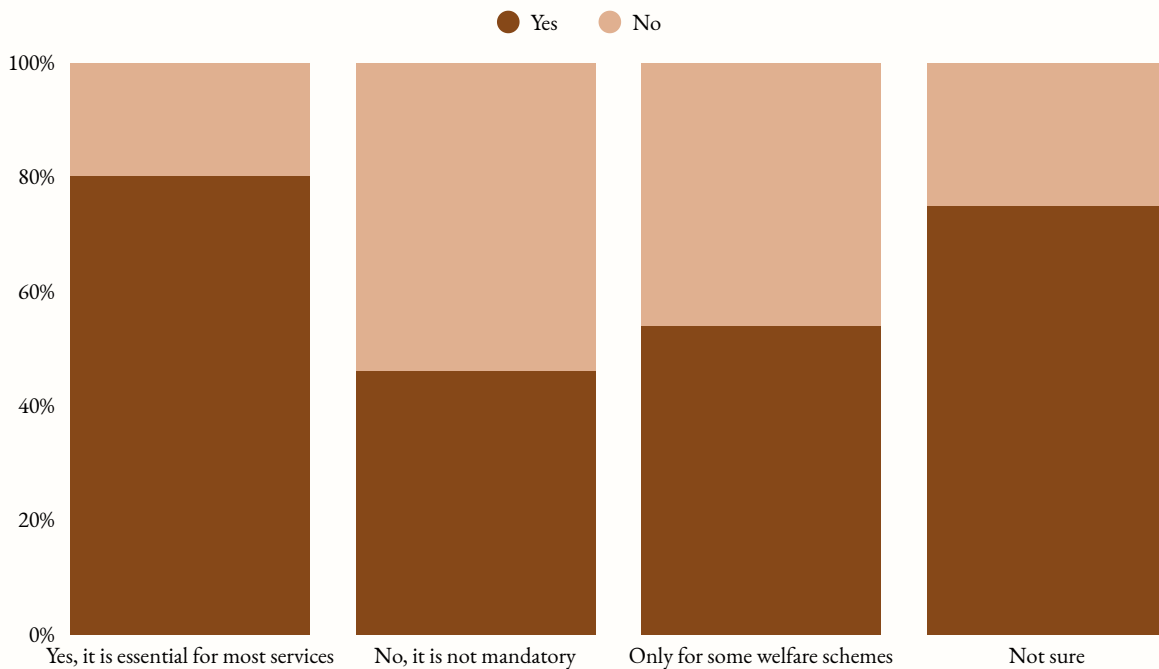
The chart highlights stronger and more consistent performance by Aadhaar Seva Kendras, while other centre types show similar scores. Accessibility remains the main area for improvement across non-ASK centres.

Crowd Manageability as Per Staff Availability



Across all staffing levels, a majority of respondents reported that the workload is manageable. However, staff in centres with 5-10 employees were more likely to feel that additional nearby centres would help manage the workload, while very few respondents reported that footfall exceeded the centre's capacity.

Aadhaar Mandatoriness vs. Perception of Citizenship Proof



The graph shows the relationship between respondents' views on whether Aadhaar is mandatory and whether they consider Aadhaar to be proof of citizenship. For each category on Aadhaar's mandatory status, it shows the percentage of respondents who believe that Aadhaar is a proof of citizenship.



Scientific Analysis

Latent Class Analysis

Latent Class Analysis (LCA) was used to identify groups of respondents exhibiting similar demographic, behavioural and service-experience characteristics. Instead of assessing each characteristic separately, LCA grouped respondents with similar characteristic combination to be grouped together. The analysis was then conducted for each of the four stakeholder groups, enabling us to identify the specific characteristics and patterns that differentiate each group from each other.

Through this, we managed to not only discover who each type of stakeholder is, but also what

are the connections between their. Through this, we managed to not only discover who each type of stakeholder is, but also what are the connections between their demographics, behaviour patterns, and experience. Therefore, these classes give insight into the differences and similarities of each of the stakeholder groups, helping to discover the most important characteristics of each group. The tables below provide information about how the stakeholders are distributed across these discovered classes and what demographic, behavioural and service-related characteristics are associated with each of the classes.

I. Citizens in Vicinity

Profile	Share	Defining Characteristics
Crowding-Affected Citizens	20.50%	97.9% experienced overcrowding; 88.7% linked private benefits to Aadhaar; mixed awareness of update requirements
Young, Facilitated Enrollees	26.00%	63.6% aged 18–30; 46.3% enrolled as children; only 4.4% experienced overcrowding
Older, Low-Awareness Citizens	31.00%	Largest segment; 28.5% below Class 10; only 8.0% aware of age-5 biometric update and 1.6% of age-15 requirement
Educated, Awareness-High Citizens	22.50%	54.7% graduates; 94.8% used ID proof; highest awareness of biometric update requirements

Finding: The largest segment of citizens comprises older and relatively less educated respondents with significant gaps in awareness of mandatory biometric updates, indicating the need for targeted awareness interventions.

II. People Who Have Availed the Services

Profile	Share	Defining Characteristics
Moderate-Experience Users	47.70%	67.9% reported adequate seating; 65.5% were satisfied with the service
Educated, Smooth-Experience Users	32.30%	80.0% reported adequate seating; 88.9% faced no documentation difficulty; 84.2% were satisfied
Under-Served, High-Friction Users	19.90%	31.1% reported inadequate seating; 37.8% faced documentation difficulty; only 15.4% were satisfied

Finding: Nearly 1/5 service users experience a high-friction service journey, characterised by infrastructure constraints, documentation difficulties and substantially lower satisfaction.

III. Service Providers

Profile	Share	Defining Characteristics
Small & Resource-Constrained Centres	14%	82% operate with 1–2 staff 71% process <10 updates/day 34.9% report frequent employee stress
High-Capacity Post Offices	71%	Largest service-provider segment 75.9% handle 40+ visitors/day 54.9% process 40+ updates/day Broad service coverage
Specialist Post Office Centres	15%	84.2% handle 40+ visitors/day Comprehensive service coverage 53.7% of workers are postgraduates

Finding: The service-provider network is heterogeneous. While the majority of centres operate at high capacity, smaller private/CSC centres combine lower throughput with greater employee stress, indicating potential resource-related operational constraints.



IV. Aadhaar Seva Kendras

Parameter	Basic-Infrastructure Centres	Well-Equipped Centres
Share of Centres	65.40%	34.60%
Token Counter	18%	100%
Operator Counter	12%	100%
Document Verification	12%	100%
Technical Training	24%	56%

Finding: The LCA indicates that Aadhaar service challenges are not driven by a single constraint. They emerge from the interaction of citizen awareness, service-centre experience, operational capacity and infrastructure. Consequently, interventions should be segmented across both the demand and supply sides rather than adopting a one-size-fits-all approach.

Regression

Ordered Probit Regression

The Ordered Probit Model was employed for an analysis of the satisfaction level of people who availed the Aadhaar related government services, in terms of the operational and technical efficiency of the Aadhaar Centres and Aadhaar Seva Kendras. This regression is used when the dependent variable is in terms of an ordinal ranking, wherein there are categories with a natural hierarchical order but unequal spacing between them. This is assumed due to the existence of an unobserved latent variable that captures the underlying intensity of the outcome of interest.

This inherent latent variable is modelled as a linear function of explanatory variables:

$$y_i = x_i\beta + u_i$$

Where y_i^* , which is unobserved, still functions as a latent variable when it crosses a set of threshold parameters.

This model is useful because it factors in the ordinal structure of the categories while also adequately capturing the latent behavioural process. This makes it suitable for calculating the probability of observations falling into each category, and in our case, analysing the probable increase in satisfaction levels when the chosen metrics improve.

The variables analysed were categorised in terms of the dependent variable being the Satisfaction Level of the people in line, dependent on variables that denote operational efficiency.

They are detailed as follows:

Ordered Probit Regression: Satisfaction Level of People Who Aailed Services with respect to Operational Efficiency	
Dependent Variable	Description
Satisfaction Level	Were you satisfied with your experience at this centre? This measures the respondent's overall satisfaction with the services provided.
Independent Variables	Description
Signage	Is there a sign and/or information bulletin at the entrance (tick all that apply)? This assesses the availability and visibility of information for users.
Accessibility	Were the directions and signboards easy to understand? This measures how easily respondents could navigate and locate the centre.
Staff Cooperation	How cooperative were the staff members that you interacted with? This captures the staff's willingness to assist respondents during their visit.
Waiting Time	How long was the waiting time before your appointment? This measures the time respondents had to spend before receiving the service.
Seating Arrangements	Were seating arrangements available while waiting? This assesses the availability and adequacy of seating facilities for respondents.
Literacy or Linguistic Barriers	Were there any challenges due to language or literacy barriers? (While filling forms, understanding documents, etc.)
Staff Helpfulness	How helpful was the staff here for people who need more support (elderly, PwDs, women, rural citizens)? This assesses the extent to which staff provided additional assistance when required.
Time for Issue Resolution	If you faced an issue, how long did it take to get resolved? This measures the efficiency of the centre in addressing and resolving reported issues.



The analysis was run on Stata and the results were as follows:

Satisfaction	Regression Coefficient	Z score	P value
Signage	0.17	1.21	0.23
Accessibility Directions	0.23	2.99	0
Staff Cooperation	0.84	8.52	0
Waiting Time	0.09	1.7	0.09
Seating	0.13	1.16	0.25
Literacy Barriers	0	-0.01	0.99
Staff Helpfulness	-0.05	-0.74	0.46
Time for Issue Resolution	-0.05	-0.47	0.64

Findings:

- Staff Cooperation has the largest and highly significant positive effect on satisfaction. Higher levels of cooperation strongly increase the probability of respondents reporting greater satisfaction. Other statistically significant parameters include accessibility and Waiting Time
- The other independent variables are not significant since the p-value is greater than 0.05, indicating that the variation cannot be attributed to the given variable.
- In the case of Literacy barriers, we observe that the coefficient is very close to 0, allowing us to interpret that the true effect exists, but is simply too negligible to be significantly justified.
- The pseudo R^2 indicates that the model sufficiently explains 21.54% in the latent satisfaction variable. This is assumed to be a strong relationship for an ordinal model.

Linear Regression

Linear Regression was employed to analyse the impact of age, gender, and education on the awareness of the respondents about the online Aadhaar-related services. Linear regression is used to explain the relationship between a continuous or running dependent variable and one or more independent variables. It helps establish a pattern and estimates how changes in the independent variables affect the dependent variable, and to what extent.

In this study, age, gender and education have been taken as the independent variables and awareness of online Aadhaar services as the dependent variable.

The model is intended to determine whether these demographic characteristics have a statistically meaningful relationship with the awareness levels of respondents. It also helps us

identify the direction and magnitude of the relationship between each independent variable and the dependent variable. A positive coefficient would indicate that an increase in the respective explanatory variable is associated with higher awareness, while a negative coefficient would indicate the opposite relationship. The analysis therefore allows the individual contribution of age, gender, and education to be examined while considering the other variables in the model.

This model makes a basic assumption that the dependent variable can be represented as a linear function affected by all independent variables, and containing a random error term as well, which accounts for those independent variables which have an influence on the dependent variable, but haven't been included in the current analysis model. The relation can be expressed in the form of the following linear expression:

$$Y_i = \beta_0 + \beta_3 Education_i + \beta_1 Age_i + \beta_2 Gender_i + u_i$$

Where:

- Y_i represents the awareness level about online Aadhaar services for respondent i .
- Age_i , $Gender_i$, and $Education_i$ represent the explanatory variables for the respondent.
- β_0 is the intercept term.
- β_1, β_2 , and β_3 represent the coefficients that measure the effect of each independent variable on awareness.
- u_i is the error term that captures other factors affecting awareness but not included in the model.

The rationale behind the same was to gauge how demographic and informational factors influence the respondent's awareness of digital Aadhaar services.

The coefficients obtained as a result of this analysis give us the direction and magnitude of the effect of the independent variables on the dependent variables. For example, it shows us that with a certain increase in age, by what degree does the awareness of online services increase/decrease, or whether awareness varies across various age groups.

By applying linear regression in this situation, we can interpret the impact of various demographic characteristics on levels of awareness; thus, we can quantify the relationships among those characteristics and use them to determine what the primary factors are in creating increased awareness and access to the Aadhaar online services, guiding improvements with respect to digital outreach and service delivery.

The following variables were used:

Type	Dependent Variables	Independent Variables
Demand side	Awareness of online Aadhaar services (Yes/No or number of services known)	1. Age 2. Gender 3. Education level

Outcome

Identifies digitally unaware groups and helps understand which user categories rely more on physical centres for Aadhaar updates.



The linear regression was run on Microsoft Excel, and here are the results:

Regression Statistics	
Multiple R	0.350973
R-Square	0.123182
Adjusted R-Square	0.122023
Standard Error	1.914766
Observations	2273

Variable	Coefficient	p-value	t Stat
Age	-0.304	<.001	-4.43021
Gender	-0.036	0.684	-0.40654
Education	0.551	<.001	16.67644

Findings

- R-squared = 0.123182. This shows that out of the total variation in the awareness of online Aadhaar services, 12.3% is explained by the 3 selected independent variables, i.e., age, gender, and education.
- Adjusted R-squared is very close to R-squared: This shows that the variables taken are actually relevant and useful to our analysis, and the independent variables aren't useless/overfitting
- Age has a moderately strong effect on the awareness of online Aadhaar Services. This suggests that differences in age are associated with differences in respondents' awareness of online Aadhaar services
- Gender has an insignificant effect on awareness. Hence, gender doesn't have a meaningful impact on awareness.
- Education levels have a strong effect on the awareness of online Aadhaar services.

Logistic Regression

The logistic regression model is used to model a relationship between variables when the dependent variable is binary in nature. The outcome of the dependent variable is one of the two possible outcomes. It is an enhanced version of the Linear Regression model because it estimates the probability that a given observation belongs to a particular category while ensuring that the probability remains within the interval of 0-1.

The model helps identify how each independent variable influences the likelihood of respondents being aware of online Aadhaar services and the factors affecting their awareness levels.

Mathematically, it can be expressed as:

The parameters of the logistic regression model are estimated using Maximum Likelihood

Estimation. This method helps identify the coefficient values that maximise the likelihood of observing the given sample data, given the model specifications. It is preferred over OLS because the dependent variable is discrete rather than continuous, and the relationship between predictors and probability is non-linear.

We have applied this model to gauge the determinants of public satisfaction with Aadhaar services. We will run a logistic regression model to gauge what demographics of people, e.g., gender, age, and type of centre, are more likely to be satisfied with the Aadhaar services provided by the Government.

In the regression model, the independent variables will be gender, age, and type of Aadhaar centre (eg. Aadhaar Seva Kendra, Post Office enrolment Centre, etc), and the dependent variable would be “Were you satisfied with your experience at this centre?”, where a “Yes” would be coded as a 1 and a “No” would be coded as a zero. The basic purpose of the model is to estimate the probability that a respondent is satisfied with the Aadhaar services, contingent on their demographic and the Aadhaar centre’s characteristics.

The following variables were analysed:

Logistic Regression	
Dependent Variable	Description
Satisfaction Level	Were you satisfied with your experience at this centre?
Independent Variables	Description
Age	Age (Below 18, 18-30, 30-45, 45-60, 60+)
Gender	Gender (Male, Female)
Centre	Centre (ASK, Post Office, etc)

The results generated are as follows:

Regression Statistics	
Chi Square	11.16196
Residual Dev.	397.8606
# of iterations	5



Variables	Coefficients	P-value	Odds Ratio
Gender	-0.04857	0.848691	0.952591
Age Below 18	-0.22227	0.644751	0.800701
Age 30-45	0.446289	0.130065	1.562503
Age 45-60	0.3093	0.38756	1.362471
Age 60+	0.308091	0.515963	1.360825
Public Bank Enrolment Centre	-0.87332	0.147164	0.417563
Aadhaar Seva Kendra (ASK)	0.565774	0.051501	1.76081
Government Office Enrolment Centre	-0.08204	0.85594	0.921235
Privately Run Enrolment Centre	-0.48474	0.349013	0.615856

In each category (gender, age group and centre type), we have used one observation as a reference category. The reference categories are as follows: Male in gender, Age 18-30 in age and Post Office Centre in Centre Type. Throughout the regression, wherever a response has been received from a particular age group, gender, and centre type, that category is marked as a “1” for that particular response. However, for the reference categories, all the responses will be marked as “0”.

As the regression involves the usage of the logarithmic function, we remove the log from the final coefficient (β) by taking it to the power of the exponential function, and the final figure that comes out is known as the Odds Ratio. We can compare the expected satisfaction levels of the people using this coefficient.

A positive β coefficient means that the probability of that particular centre is higher than that of the reference category and vice versa. Additionally, a larger magnitude (mode of the coefficient) represents a stronger effect.

Findings:

- An odds ratio of 1.76081 for ASK suggests that the odds of a citizen being satisfied at an ASK are 1.76081 times the odds of being satisfied at a Post Office centre, holding other variables constant.
- An odds ratio of 0.952591 for females suggests that the odds of a female being satisfied are approximately 4.7% lower than those of males, holding all other variables constant.

Correlation Analysis

Correlational analysis is a form of bivariate statistical analysis used to measure the strength, direction, and mathematical significance of the relationship between two unique variables.

The statistical output is the correlation coefficient, which will always be between -1.0 and +1.0.

- A correlation coefficient approaching +1.0 means a high positive correlation between the variables.
- A correlation coefficient approaching -1.0 means a high negative correlation between the variables.
- A correlation coefficient approaching 0 means no correlation between the variables.

Relevance:

Six parameters were identified for analysis, each representing a distinct variable pairing based on different dimensions of the Aadhaar ecosystem. The analyses were conducted using three statistically appropriate techniques: Pearson's Product-Moment Correlation, Spearman's Rank-Order Correlation, and Point Biserial Correlation.

After running the correlation analysis, all the results were verified by running a t-test to ensure the validity of the results.

Pearson Product-Momentum Correlation:

It is a parametric test that measures the linear relationship between two strictly continuous variables. It measures how far the data points deviate from a linear line of best fit. The resulting correlation coefficient indicates the strength and direction of the relationship between two variables.

Formula:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

Spearman's Rank-Order Correlation:

It is a non-parametric test for assessing the level of statistical dependence between two variables. Unlike Pearson's correlation coefficient, it tests for monotonic relationships rather than linear ones.

Formula:

$$\rho = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}$$

Where:

- ρ = Spearman's rank correlation coefficient
- d_i = Difference between the ranks of the two variables for observation i
- n = Number of observations

Point-Biserial Correlation:

The Point Biserial correlation is specifically intended to test the correlation between a single continuous variable and a single naturally dichotomous variable.

Formula:

$$r_{pb} = \frac{\bar{X}_1 - \bar{X}_0}{S_X} \sqrt{pq}$$

Where:

- r_{pb} = Point-biserial correlation coefficient
- $\bar{x}_1$ = Mean of Group 1
- $\bar{x}_0$ = Mean of Group 0
- S_X = Standard deviation
- p = Proportion of observations in Group 1
- q = Proportion of observations in Group 0



The following results were derived from the analysis:

Variables	Technique	Result	P value (t-test)	interpretation
Education Level vs. Digital Awareness	Pearson + Spearman	$r = 0.333$ $\rho = 0.361$ Significant	0	The positive coefficient confirms that as the education level increases, digital awareness scores tend to increase as well. More educated respondents are more likely to be aware of a broader set of Aadhaar digital services.
Staff Cooperation vs. Overall Satisfaction	Pearson + Spearman	$r = 0.492$ $\rho = 0.426$ Significant	0	The value falls in the moderate-strong base. It demonstrates a positive correlation relationship between cooperative respondents' perception of centre staff and their overall satisfaction with the enrolment experience. It can be inferred that staff cooperation is one of the most statistically significant factors associated with user satisfaction in the enrolment experience.
Education Level vs. Private Sector Aadhaar Use	Point Biserial + Spearman	$rpb = 0.164$ $\rho = 0.155$ Significant	0	There is a statistically significant but very weak positive correlation between the variables, which indicates that education may not be a pivotal factor for awareness about availing private sector services through the medium of Aadhaar.
Aadhaar Proof of Citizenship vs. Perceived Aadhaar Mandatoriness	Point Biserial + Spearman	$rpb = 0.201$ $\rho = 0.206$ Significant	0	Most of the respondents consider the Aadhaar's mandatoriness to be strongly related to its proof for citizenship.
Staff Count vs. Daily Successful Enrolments	Pearson + Spearman	$r = 0.120$ $\rho = 0.139$ Not Significant	0.0688	No statistically significant relationship exists. Hence, correlation fails in this case.
Footfall vs. Successful Enrolments	Point Biserial + Spearman	$rpb = -0.103$ $\rho = -0.112$ Not Significant	0.2564	No statistically significant relationship exists. Hence, correlation fails in this case.

Chi-Square Testing

The Chi-Square Test of Independence is a nonparametric statistical method that helps determine whether two categorical variables are significantly related. The Chi-Square test helps determine whether there is a pattern in the data or a relationship between 2 variables, or whether there are just random fluctuations. The test that we have conducted helps in finding the relationship between categorical variables that are present in the data, such as education level and perception about the Aadhaar Card. Through the test, we were able to find out or justify that the education level has a significant effect on perception about the Aadhaar Card. Though these were intuitive tests, we were still able to justify the relation with the help of the Chi-Square hypothesis testing.

Formula:

$$\chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Where:

- O_{ij} : Observed frequency (actual data from your table)
- E_{ij} : Expected frequency (what you'd expect if variables are independent)

Formula for Expected Frequency:

$$E_{ij} = \frac{(\text{Row Total}_i)(\text{Column Total}_j)}{N}$$

Where:

Row Total: Total of responses in that row

Column Total: Total of responses in that column

N: Total of all the responses

Variable A	Variable B	P Value	Purpose of Test	Interpretation
Education Level	Awareness of Online Aadhaar Services	0	To assess whether higher educational attainment influences awareness of digital Aadhaar services.	Statistically significant relationship between the variables. Respondents with higher educational attainment tend to have greater awareness of digital Aadhaar services.
Education Level	Perception of Aadhaar as Citizenship Proof	0	To examine whether educational background affects understanding of Aadhaar's legal role.	Statistically significant relationship between the variables, educational background influences respondents' understanding of Aadhaar's legal status.
The Visit of the Respondent: First or Repeated	Difficulty in arranging documents	0.4659	To determine whether there is a relation between the number of times a person comes and the difficulty in arranging the required documents.	No statistically significant association.



T-Test

T-tests were employed to assess whether significant differences existed in key operational and experiential metrics across respondent or centre classifications. This parametric statistical test is suitable for comparing the means of two independent groups when the dependent variable is continuous; examples include waiting times, payment amounts, or footfall data. The assumption is that the sample size for each group is sufficiently large to support statistical significance.

We obtain this result by computing a t-statistic, which quantifies the difference between group means relative to the variability present in the data. The p-value, derived from this statistic,

reflects the probability of observing the observed difference under the assumption that the null hypothesis is true.

In this report, we employed T-tests, setting the significance level at $\alpha = 0.05$.

Formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Where:

- $\bar{x}_1, \bar{x}_2$ = sample means
- s_1^2, s_2^2 = sample variances
- n_1, n_2 = sample sizes

Result Summary:

Variable A	Variable B	P-Value	Interpretation
Centre Accessibility	Average Footfall	0.6952	$p >$ significance level; no statistical relationship between accessibility and footfall.
Presence of Aadhaar Enrolment Centre	Effect on Local Business (scored: +1 positive, 0 neutral, -1 negative)	0.0057	$p <$ significance level; statistically significant effect of presence of Aadhaar Centres on local businesses.
Occupation Status - Working vs. Non-Working	Payment for Aadhaar Services (₹)	0.815	$p >$ significance level; no statistical relationship between occupation status and payment made for Aadhaar services.

Problems Identified

Based on the surveys, the following problems were identified when accessing Aadhaar-related services at various centres.

Demand Side Problems

Lack of Knowledge About Online Aadhaar-Related Services

There are various knowledge gaps present about Aadhaar services.

1. Many citizens remain unaware of the full range of services available online, such as updating demographic details, downloading e-Aadhaar, etc.
2. With no centralised, authoritative communication channel, most citizens rely on word of mouth or social media for Aadhaar-related updates.
3. Many people are unaware that children must update their biometrics at specific ages or that adults may need to be re-verified.

Citizenship Misconception

There are various misconceptions about the utility and nature of an Aadhaar.

1. A common misconception persists that Aadhaar is proof of citizenship, when in reality it is only proof of identity and residence.
2. 998/1423 respondents of citizens in the vicinity, 230/ 306 respondents who had availed the Aadhaar service and 216/260 persons in line mentioned that they believe that Aadhaar acts as a proof of citizenship.

3. Though legally not mandatory to own, 227/260 Persons in line, 1191/1423 Citizens in the vicinity and 271/305 Citizens who had availed the service mentioned that it is essential to own an Aadhaar to avail most services.

Systematic Problems (Discriminatory Factors)

There are multiple systemic problems that create barriers for various demand stakeholders in terms of accessing Aadhaar-related services.

1. Certain citizens refused to answer, citing that they did not know about Aadhaar cards or the extent of the services provided through them.
2. Certain social classes faced difficulty in accessing Aadhaar-related services and were subjected to discriminatory treatment by officials.
3. There were a few people who refused to answer, or were hesitant to answer; a pattern observed by the illiterate as well as some women.

Lack of Self-Sufficiency in Procuring Information or Materials

There are multiple factors that limit independent access to services by the citizens, leading to dependence on others for information or documents.



2. Many people lack confidence in actually understanding official portals or fear making mistakes during the process, which discourages them from attempting and availing services independently.
3. Difficulty arranging required documents; in several cases, individuals are either unaware of acceptable documents or face challenges in organising them.

Supply Side Problems

Poor Physical Infrastructure and Accessibility at Service Centres

Centres are difficult to reach, poorly maintained, and structurally exclusionary.

1. Many centres are located deep inside markets, narrow lanes, or alleys, making them physically difficult to find and navigate.
2. Physical accessibility for senior citizens and persons with disabilities is severely lacking across most centres.
3. Many centres had no information bulletins, notice boards, or signage displaying service lists, fee schedules, or procedural guidance.
4. At most centres, including post offices, only a single counter or person is assigned to Aadhaar-related services. This creates a clear structural supply-side constraint.

Fragmented and Inconsistent Service Delivery Across Centres

There is a need to mandate service completeness at each Aadhaar Centre.

1. There is no mandated minimum service standard for registered Aadhaar centres.

2. Biometric verification failures and technical glitches with fingerprint scanners and network issues are frequently observed.
3. Slight human error during the creation/update of the Aadhaar card led to numerous complications.
4. Forging of Aadhaar cards and multiple Aadhaar cards illegally owned by one person due to misuse.

Need for Opacity in Fee Structures and Systematic Overcharging by Operators

Enforce fee transparency at the point of service.

1. UIDAI revised its fee schedule in October 2025, but this update has not been communicated to citizens at the point of service.
2. Respondents in multiple locations explicitly noted that the ease of getting work done depended on how much one was willing to pay.

Locational Accessibility Issues

1. UIDAI operates the Bhuvan Aadhaar Portal as a geospatial centre locator, but field surveys found it to be significantly outdated.
2. 47/260 respondents waiting in line and 42/309 respondents who had availed the service mentioned that the centre was 10+ kilometres from their home.

Expand Mobile Number Update and other High-Demand Services on the UIDAI Website

1. A persistent source of confusion identified is the belief that mobile number updates can be completed on the UIDAI website.

Policy Recommendations

Demand Side Recommendations

Addressing the De facto Mandatory Nature of Aadhaar

I. Statutory Enforcement of Alternatives: All public and private service providers must be legally required to accept alternative forms of ID (other than Aadhaar) on an equal footing. Further, enforcement must move from advisory in nature to a binding compliance form.

II. Operationalisation of the Right to Refuse Aadhaar: Government agencies should issue standardised, legally binding directives and campaigns clearly stating where Aadhaar is optional versus mandatory. A formal grievance redressal mechanism where residents can report coercive Aadhaar demands can further improve on-ground implementation.

Reforming Limits on Demographic Updates in Aadhaar

I. Replace Lifetime Caps with Risk-Based Update Controls and Introduce Tiered Verification Pathways: The substitution of numerical caps with a risk-based verification system that requires a higher level of documentary proof or in-person verification for sensitive changes can enable persons with legitimate reasons for multiple

changes to access the same. Further, additional changes beyond the numerical limits may be facilitated through regional offices or biometric reauthentication.

Addressing the “Aadhaar = Citizenship Proof” Misconception

I. Mandate Clear Legal Disclaimers: Official and private interfaces where Aadhaar is requested (forms, portals, KYC processes) should carry a standardised disclaimer: “Aadhaar is proof of identity/residence, not citizenship.” Further standardised training for frontline service providers can help prevent legal misuse.

Nationwide Aadhaar Awareness Campaign to Tackle Public Unawareness

I. Tackling Misconceptions: The core message of the campaign should debunk myths and emphasise the given facts:

- Aadhaar is not proof of citizenship.
- Aadhaar is legally not mandatory for all services.
- A clear explanation of which services actually require Aadhaar vs alternatives.
- The timeframes within which a person must update their biometrics.



II. Emphasising available Aadhaar Services:

Simple step-by-step guides must be made accessible for the following:

- a. How to download e-Aadhaar
- b. How to update details (name, address, DOB)
- c. How to lock/unlock biometrics

III. Targeted Messaging for Vulnerable Groups:

Our data clearly shows that illiterate individuals, elderly citizens, and women face confidence barriers, not just information gaps. The following factors may be incorporated to address the same:

- a. Visual-first communication
- b. Regional language delivery
- c. Leveraging trusted community networks such as SHGs and Anganwadis

IV. Build Confidence, not just Awareness:

The campaign can incorporate the following dimensions to actively tackle underconfidence:

- a. Use demonstration-based outreach
- b. Publish simple, visual lists of accepted documents
- c. Explain alternative pathways if documents are missing

Supply Side Recommendations

Poor Physical Infrastructure and Accessibility at Service Centres

I. Mandating Minimum Infrastructure Standards for Aadhaar Service Centres: The Unique Identification Authority of India (UIDAI) must develop a Minimum Infrastructure Standard (MIS) framework that is binding and mandatory for all Aadhaar enrolment and update centres in India.

This framework must list the minimum requirements that Centres must meet for physical access, such as a ramp, a handrail, a lift, or a ground-floor room if the centre is on a higher floor, and clear signs outside the host building and the centre itself. The centres that continue failing to meet these standards even after a mandated compliance period of six months should be removed from the Bhuvan Aadhaar Portal and from the myAadhaar locating app and only be re-included after a UIDAI district-level inspection confirms their compliance.

II. Mandatory Accessibility Provisions for Senior Citizens and Persons with Disabilities: UIDAI must publish a separate accessibility circular that makes it mandatory for all Aadhaar centres to provide priority seating, accessible counters at a reasonable height, tactile path guidance inside the centre, and assisted biometrics capture in a sitting position as an option. Centres that are situated in structurally inaccessible premises (e.g. upper floors of narrow markets with no lift) should be mandated to find and make an accessible alternate venue available within one kilometre or give up their registration. Introduction of quarterly third-party accessibility audits, whose scorecards will be made public, should be considered as a condition for continuous registration.

III. Standardised Display of Service Lists, Fee Schedules, and Procedural Guidance: UIDAI may require the mandatory display of a standardised Service Information Board at all registered centres. This board, centrally provided by UIDAI in the appropriate regional language and English, should contain the present list of services, the fee fixed for each

service according to the latest UIDAI gazetted notification, approximate time required for processing, and UIDAI complaint helpline number (1947). A photo check of this display can be made during yearly registration and also during unscheduled visits. Failure to show the board can lead to a fixed monetary fine and, in case of repeat, deregistration.

IV. Increasing Counter Capacity to Address Structural Supply Constraints: UIDAI should undertake a study of utilisation at all registered centres through analysis of appointment and queue data, and identify centres with high customer traffic as Category A centres. Category A centres should be required to have at least two dedicated Aadhaar counters open at all times during the working day. UIDAI should also increase the allocation of certified Aadhaar operators to these centres through the authorised enrolment agency partners, in line with the increased requirement. In case of non-availability of additional space for a second counter, UIDAI should go ahead with the registration of a second satellite centre located nearby and in the same locality, to disperse the demand. Centres which for a long time have not been able to provide service to their clientele within a period of 45-minute average wait should undergo a capacity review and have to submit a plan for corrective action.

Fragmented and Inconsistent Service Delivery Across Centres

I. Introducing a Mandated Minimum Service Standard for Registered Centres: UIDAI should publish a Service Level Agreement (SLA)

document defining the minimum basket of services every registered Aadhaar centre must offer, including new enrolment, biometric update, demographic update, and Aadhaar reprint. Centres unable to offer any item from this basket due to equipment shortage or operator unavailability must display a temporary service suspension notice and notify the UIDAI helpdesk within four hours. UIDAI should track and publicly publish monthly service availability data at the centre level to create accountability and allow citizens to make informed choices about which centre to visit.

II. Resolving Biometric and Technical Failures Through Preventive Maintenance Protocols: UIDAI must release a Service Level Agreement (SLA) document outlining the essential set of services that each registered Aadhaar centre should provide, such as fresh enrolment, updating of biometrics, updating of demographics, and Aadhaar reprint. If any centre cannot provide some item from the basket due to a lack of equipment or the absence of an operator, it must put up a notice of temporary service suspension and inform the UIDAI helpdesk within four hours. UIDAI is expected to monitor and regularly publish the monthly service availability data at the centre level to ensure accountability and help citizens make choices about which centre to visit.

III. Reducing Errors During Creation and Updating Through Operator Accountability Measures: UIDAI ought to enforce a compulsory double-screen check for agents before the completion of any demographic data documentation.



This phase would prompt the person to immediately validate their name, birth date, and address as shown on the screen prior to submission. The individual's overt confirmation should be recorded in the system. Agents should also be obligated to undergo recertification every two years through an online test conducted by UIDAI. Agents who double their error rate to more than two per cent of the applications processed in any quarter find themselves getting a performance improvement notice and suspension of their credentials on a third violation.

III. Addressing Aadhaar Fraud Through Strengthened Verification and Deduplication Mechanisms: UIDAI needs to introduce real-time de-duplication alerts as part of the enrolment process itself. This will involve checking the biometric data of a new enrollee against the existing database, even before generating a new Aadhaar number. If the confidence score for a possible match goes beyond a certain threshold, the system should automatically flag the case for manual verification, thereby delaying the issuance until a top official of UIDAI gives the clearance. UIDAI can set up a special fraud investigation cell, which will have the authority to revoke the compromised Aadhaar numbers and file criminal charges against the willing operators as per the provisions of the Aadhaar Act 2016, namely Section 34 (identity fraud) and Section 40 (impersonation) for cases of fraudulent/duplicate Aadhaar in circulation. Citizens who blow the whistle on suspected operator misuse should also be given protection against any retaliatory actions.

Opacity in Fee Structures and Systematic Overcharging by Operators

I. Communicating Revised Fee Schedules: After the UIDAI fee revision of October 2025, updating Service Information Boards and delivering them to all registered centres is the main requirement within 30 days of any future fee revision. UIDAI should frame a standard operating procedure (SOP), i.e. a set of instructions, that entails authorised enrolment agencies to send printed fee schedule inserts to all their affiliated centres within 15 days of any gazette publication of a fee change. Meanwhile, UIDAI should give the highest prominence to the fee details update on myAadhaar web portal, mAadhaar mobile application, and Bhuvan Aadhaar Portal, the very same day of a fee change publication in the gazette, so that citizens get the chance to check the fees at their fingertips before deciding to pay a visit to a centre.

II. Implementing a Digital Receipt and Transaction Log System: It is highly recommended that UIDAI require all Aadhaar service transactions to produce a uniform digital receipt, which would be automatically delivered to the citizen's registered mobile number or email address right after the payment and the service being provided. The receipt should clearly mention the work done, the fixed fees, the amount collected, the operator ID, and the centre code. UIDAI should set its backend system to mark any case where the amount collected is more than the fixed fee and send it to the district officer for a grievance for further examination.

If a citizen cannot show a receipt, they should be advised to visit the UIDAI complaint website to report their grievance against the centre.

III. Establishing a Decentralised Fee Grievance Mechanism with Enforceable Penalties: The UIDAI needs to set up a two-level system for fee complaints. The first level, the enrolment agency, should appoint a Fee Compliance Officer who is responsible for dealing with overcharging complaints and sorting them out within seven working days. The second level, disputes which have not been resolved at the first stage, should be automatically directed to the UIDAI regional office, which must close the case within 21 working days by issuing a detailed order. If the overcharging is proved, the penalty should be ten times the amount the collector took in excess. The penalty amount should be given to the complainant, and the operator should be recorded as a strike. If the operator gets three strikes within 12 months, he/she should be permanently deregistered.

IV. Conducting Regular Decoy Audits to Monitor Fee Compliance: UIDAI, together with the respective State Resident Data Hubs (SRDHs) or state-level designates, should carry out a series of surprise decoy audits at Aadhaar centres at least twice a year per district through a programme. Such audits should see well-trained government officials posing as simple citizens in need of Aadhaar services, recording the fees charged, and comparing these with the official rates specified. The findings must be aggregated and published in a yearly Fee Compliance Report that is publicly available. Centres with a continuous record of non-compliance should be given immediate attention for show-cause actions and eventual deregistration.

Locational Accessibility Issues

I. Expanding the Number of Kendras in High-Gap Areas: UIDAI should use existing enrolment and footfall data to identify blocks and districts where citizens have to cover a distance of more than 10 kilometres to reach a Kendra. Then, prioritise opening new centres in those areas. Smaller, satellite Kendras authorised to handle the most common services like address updates and biometric corrections would be sufficient to bring meaningful relief to underserved areas while at the same time minimising the investment requirement. Setting a clear target, such as ensuring no citizen has to travel more than a set distance (for example, 5 kilometres) to access Aadhaar services, would make progress in this regard measurable.

II. Scheduled Mobile Camps in Underserved Areas: For locations where the establishment of permanent centres would be unfeasible, mobile camps can be scheduled at regular intervals. These camps can be scheduled in coordination with local panchayats and advertised in advance so that residents can plan accordingly instead of having to get to the location to determine whether or not a camp is currently in session. Mobile camps have already been used successfully for new enrolments; the same model can be extended to cover updates, biometric corrections, and document changes. Targeting these camps specifically in areas where the nearest Kendra is more than 10 kilometres away would ensure that the effort prioritises the areas where the need is at its highest.

III. Listing Kendras on Commonly Used Navigation Apps: Citizens usually check navigation apps such as Google Maps instead of official government portals for information.



Instead of trying to change their behaviour, the government should utilise it and effectively integrate the Bhuvan portal with Google/Apple maps, etc., making sure that all the information about timing, location, operational hours, and working days, etc., making it easy for people to find their nearest centre without needing to know that the Bhuvan portal exists. This would reduce misdirected visits and help citizens plan their trips better. It is a low-cost step that can meaningfully improve accessibility without requiring any change to the physical infrastructure on the ground.

Expand Mobile Number Update and other High-Demand Services on the UIDAI Website

I. Enable Mobile Number Updates on the myAadhaar Web Portal: UIDAI should introduce mobile number update functionality directly on the myAadhaar web portal. Since the newer Aadhaar app already supports this through in-app biometric authentication, the same capability can be extended to the web portal using face authentication via the device camera, combined with an OTP to the new number being registered. This would allow citizens who do not own a smartphone or the newer Aadhaar app to complete the update entirely online without visiting an enrolment centre.

II. Expand Other High-Demand Services to the Web Portal: Beyond mobile number updates, UIDAI should conduct a review of the most frequently requested services at enrolment centres and identify which of these can be safely enabled online.

Services such as name correction, date of birth update, and email ID linkage should be evaluated for online enablement with appropriate authentication safeguards. Expanding the web portal's scope will reduce footfall at enrolment centres and make Aadhaar services more accessible to citizens across the country.

III. Clearly Communicate Platform Capabilities at All Points of Service: Until all high-demand services are available online, UIDAI must ensure that citizens are informed about what each platform can and cannot do before they attempt a service. A standardised notice listing the capabilities of the myAadhaar web portal, the mAadhaar app, and the new Aadhaar app should be displayed at all enrolment centres and Common Service Centres. The same information should be prominently visible on the UIDAI homepage to prevent citizens from attempting services on the wrong platform.

IV. Add a Service Navigator on the UIDAI Website: The UIDAI website should include a simple service finder tool where a citizen can select the update they need and be shown the correct platform and steps to follow. This will reduce the confusion that currently arises from three platforms with different and overlapping capabilities, and will direct citizens to the fastest and most convenient option available to them.

Conclusion

Project Jaankari set out to move the conversation on Aadhaar away from macro-level policy statements and toward the lived, everyday experience of citizens and staff at Aadhaar Seva Kendras and enrolment centres across Delhi. By surveying 2,530 respondents across 26 clusters and more than 90 centres, spanning both demand-side stakeholders and supply-side operators, this study has built an empirical picture of how India's largest identity infrastructure actually functions on the ground in one of its busiest and most diverse urban markets. The findings that emerge from this exercise are neither uniformly damning nor uniformly reassuring. They instead reveal a system that works reasonably well for a majority of users most of the time, while leaving a meaningful and identifiable minority exposed to friction, confusion, and exclusion.

The single most important insight from this research is that Aadhaar's problems in Delhi are not driven by one dominant failure. The Latent Class Analysis conducted across all four stakeholder groups makes this clear: citizens in the vicinity split into at least four distinct profiles, ranging from crowding-affected citizens to older, low-awareness citizens who make up the largest single segment. Service users split similarly, with nearly one in five falling into an underserved, high-friction category defined by inadequate seating, documentation difficulty, and satisfaction levels far below the norm. Supply-side centres, too, are not a monolith: 14% operate as small, resource-constrained outfits with just one or two staff

members processing fewer than ten updates a day, while the majority function as high-capacity, high-throughput operations. What this tells us is that any single, uniform policy fix, whether it is more counters, more advertising, or a new app feature, will help some segments and miss others entirely. The problems are structural and layered, arising from the interaction of citizen awareness, service centre capacity, staff training, and physical infrastructure. Interventions therefore need to be segmented and targeted rather than blanket in nature.

At the same time, the data offers a genuinely encouraging baseline. User satisfaction at Aadhaar Seva Kendras stands at 71%, and 94% of respondents reported that no additional or unofficial charges were collected from them, a figure that speaks to a meaningful degree of transparency at the point of service. The regression analysis reinforces this positive signal in an important way: staff cooperation emerged as, by a wide margin, the strongest and most statistically significant predictor of citizen satisfaction, with a regression coefficient of 0.84 and a p-value of virtually zero. This is arguably the single most actionable finding in the entire study. It suggests that the quality of the human interaction between an Aadhaar operator and a citizen often matters more to the citizen's overall experience than infrastructure, waiting time, or even the eventual resolution of their issue. Investments in staff training, workload management, and operator wellbeing are therefore not peripheral concerns but central levers for improving public trust in the system.



However, it should be noted that the report reveals some significant shortcomings that can't be brushed off as mere operational glitches. Among these, the widespread misunderstanding of the concept of Aadhaar stands out. As many as 76% of the surveyed people think that Aadhaar is evidence of Indian citizenship, while the Aadhaar Act makes it clear that it is simply proof of identity and proof of residency. This statistic cannot be considered just a minor detail. A mistake of such a scale - three out of four respondents misunderstand the concept of Aadhaar - can have serious implications: it determines people's attitude to the relevance of this document, level of anxiety regarding its loss and up-to-dateness and degree of vulnerability in the hands of fraudsters who use the misunderstanding to lure people with fake documents or collect money on false pretences.

Added to this is the fact that a significant number of respondents, approximately 80% of the surveyed respondents across all three groups, believe that it is important to have an Aadhaar card to have access to the majority of services. However, the Aadhaar Act explicitly rejects this. Taken together, these two findings paint a picture of a document that has become functionally, if not legally, mandatory in the public imagination, and one whose actual legal character remains poorly understood even as its social and administrative weight grows heavier each year.

The operational data adds further details to this picture. Only 71.4% of those surveyed knew they could use Aadhaar services online, meaning more than 25% of respondents resort to in-person visits for work that could be done online. Moreover, this gap is not uniform.

According to multivariate analysis, knowledge of digital access increases steadily with every rise in educational attainment; for example, almost 90 % of respondents who have advanced degrees are aware of the possibility of using Aadhaar online, while those who have studied less than ten grades have much lower awareness. Since digital awareness itself was shown to correlate significantly with education level through both Pearson and Spearman tests, and since age was found to have a negative and statistically significant relationship with online awareness in the linear regression model, the population most likely to be digitally excluded, older and less formally educated citizens, is also the population least equipped to advocate for itself within a system that increasingly assumes digital fluency. This is precisely the exclusionary dynamic that the literature review identified in national-level studies, and Project Jaankari's Delhi-specific data confirms that this pattern holds even in a relatively well-resourced, urban, and infrastructurally dense setting.

The supply side findings mirror these demand side concerns. Nearly 17% of centres reported that performance audits are never conducted, pointing to inconsistent oversight even within a system that is supposed to be centrally regulated. Equipment failures, when they occur, are resolved far more slowly at Aadhaar Seva Kendras and small enrolment centres than at post offices, an outcome the report itself describes as ironic given that ASKs exist specifically to deliver Aadhaar services. High footfall and long queues, along with server and system downtime, were the main contributors to staff stress, which aligns with the earlier point that staff cooperation is the strongest driver of citizen satisfaction.

If frontline staff are stretched thin by overcrowding and unreliable systems, the quality of the very interaction that citizens value most is placed under direct and sustained pressure.

The policy recommendations that follow from this analysis are therefore not a wish list but a direct response to the data. Mandating minimum infrastructure and accessibility standards addresses the physical barriers documented at centres tucked into narrow lanes and upper floors without lifts. Standardised fee display boards and a decentralised grievance mechanism with real penalties respond directly to the transparency gaps, however small in prevalence, that were nonetheless found among the roughly 6% of respondents who reported being charged extra. A nationwide awareness campaign targeting the citizenship misconception and the actual scope of mandatory Aadhaar use responds to arguably the most consequential finding in the whole report. And the proposal to expand the myAadhaar web portal's functionality, particularly for mobile number updates, speaks to a very specific and repeatedly observed point of confusion among citizens who mistakenly believe such updates are already possible online.

Ultimately, Project Jaankari demonstrates that Aadhaar in Delhi is neither a uniform success story nor a uniform failure. It is a system held together by a workforce whose cooperative conduct citizens value highly, operating within an infrastructure that is inconsistently maintained, and serving a public whose understanding of the document's legal character lags significantly behind its practical importance in their daily lives.

The path outlined in this report suggests not that Aadhaar Seva Kendras should be completely reinvented but rather that several targeted, evidence-based actions should be taken, such as better training and support for staff, honest and widely disseminated information on what Aadhaar is and what it is not, stricter infrastructure guidelines and a digital environment that minimises visits by citizens to the Seva Kendras in person. If UIDAI and its joint agencies take measures only to address the particular gaps identified and do not approach Aadhaar governance as a single challenge, then the ordinary citizen in Delhi standing in queue at a Seva Kendra will experience a more seamless and less nervous Aadhaar service.

JK Surveys 2025-26



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Policy Recommendations

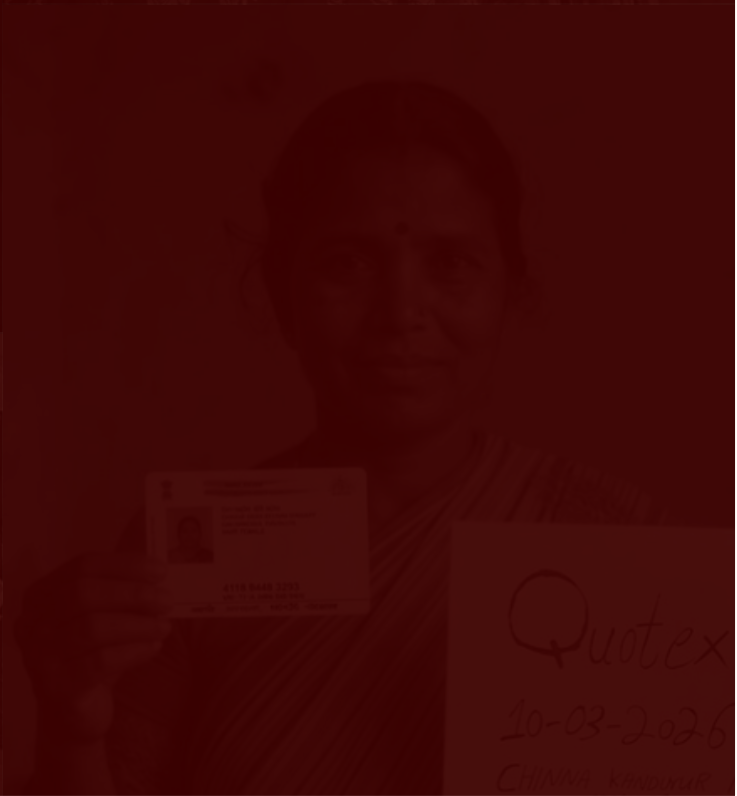
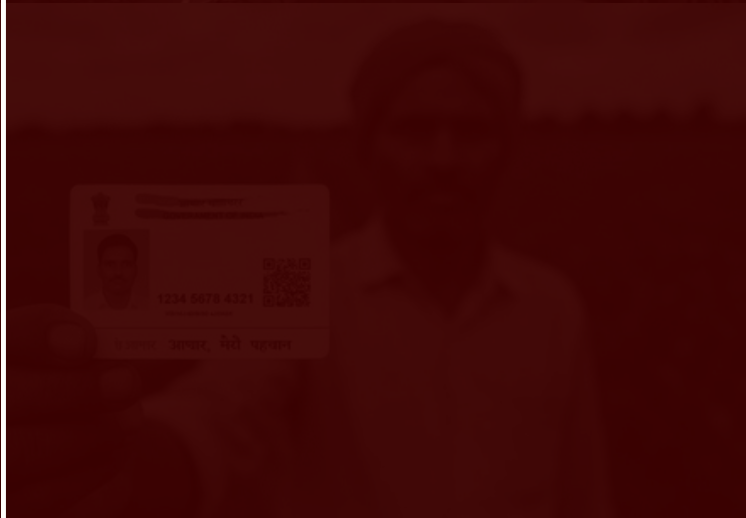
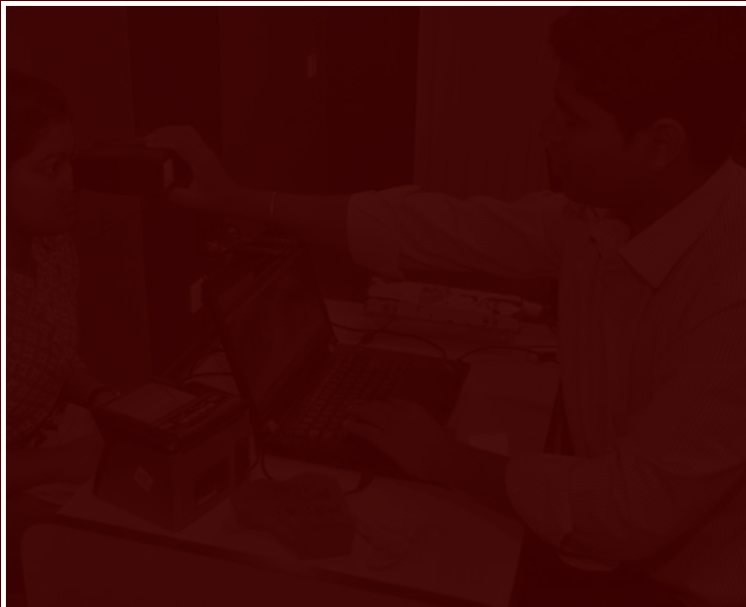
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