

Neha Katailiha is a hardworking design student furthering her education in Design at a university in Delhi. Originally from Bilaspur, Chhattisgarh, she previously earned a Bachelor's degree in Technology from Bhilai, Chhattisgarh, proving her strong academic background. Together with a creative way of thinking and technical work history, Neha gained almost 2 years of experience as a UX Designer at a Pune company that provides services. Her time working in UX design sharpened her skills and knowledge for making intuitive and easy-to-use digital products. Aside from her design expertise, Neha has a deep love for music and art. She finds peace in playing the guitar and expressing herself through singing. Additionally, she has a talent for drawing portraits and has a history of making artwork for clients during her undergraduate years, showing her artistic talents and business spirit. Neha Katailiha's varied design skills and her creative hobbies in music and art demonstrate her versatile nature and commitment to both her professional and personal passions.



Pratik Kumar is a dedicated Product Design student currently working towards a master's degree in design at Delhi Technological University focusing on technology. With a strong background in technology, he holds a bachelor's degree in mechanical specialization and also has a diploma in mechanical studies, showing his deep interest in mechanics. His passion for mechanics has been a steady motivator throughout his academic and professional path, shaping his goal to innovate and create products that greatly help and enhance people's lives. Pratik is currently involved in several projects that are in the process of obtaining patents, demonstrating his dedication to developing innovative solutions. His recent focus on medical technology has driven him to work on a groundbreaking product. Notably, this latest effort has been recognized and supported by funding and assistance from two of the most respected universities in India. His goals remain centred on making meaningful contributions in the field of product design, particularly in the area of medical technology.

**Exploring Challenges Encountered by Senior** Citizens When Managing Luggage During Train **Journeys in India: An In-Depth Review** 

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### **Abstract**

For elderly adults embarking on journeys within India, the task of transporting and managing their luggage often transforms into an intimidating and physically arduous endeavour, considerably diminishing the overall travel experience. As per the Indian Railways, most train travellers are between the ages of 19 and 45 years. The 46-60 year olds and 60+ year olds each constitute approximately 10% of total train passengers. Despite their sizable numbers, this demographic often struggles with the complex duty of conveying and organizing their baggage, exacerbated by the challenges of navigating platforms, comprehending routes, and identifying pathways that could facilitate their luggage handling efforts. This burden goes beyond physical exertion, impacting

those with limited mobility attempting to manoeuvre train stations alongside their luggage. The emotional toll of these impediments manifests as feelings of helplessness exasperation. Underscoring the compelling need to tackle these multifaceted difficulties faced by elderly people during their Indian travel journeys, this paper illuminates the pressing issues necessitating attention.

### Introduction

Travelling is an activity that enriches the human experience, furnishing opportunities for exploration, engagement, and the creation of cherished memories. Moreover, train travel is a prevalent mode of transportation in India, owing to its affordability, accessibility, and extensive network coverage. However, for elderly citizens in India, the act of venturing from one location to another is often fraught with myriad challenges, especially regarding the management of their luggage. India's ageing population is burgeoning swiftly. As stated in the 2023 India Ageing Account from a global reproductive organization, 149 million seniors currently reside in India, forming 10.5% of the total inhabitants. This figure is predicted to surge to 347 million by 2050, constituting 20.8% of the people. The ageing Indian populace carries numerous consequences, including regarding welfare, healthcare, and transport. It is vital to grasp the troubles confronted by elderly individuals and cultivate policies and programs to resolve these dilemmas.

Aged people may find luggage management burdensome owing to various influences, including their bodily strength, mobility, and cognitive faculties. They may also struggle to navigate railway terminals and locate their train. Additionally, the atmosphere of

the train can be taxing for seniors, with its narrow aisles, lofty steps, and mobs. This can impede elderly people's ability to manoeuvre and organize their luggage. The COVID-19 pandemic has further exacerbated the challenges confronted by senior citizens when travelling by train. Due to the pandemic, numerous elderly individuals are reluctant to travel by train, and those who do venture may be disinclined to seek assistance from railway personnel or fellow passengers. This fundamental aspect of travel, while seemingly mundane, assumes supreme significance in the context of senior citizens' journeys. Luggage handling bears not only physical repercussions, contributing to bodily strain and unease, but also emotional ramifications, engendering feelings of powerlessness and exasperation. This research will concentrate on the difficulties experienced by senior citizens when organizing luggage during their train voyage in India. The research will utilize data from diverse sources, encompassing interviews with senior citizens, railway personnel, and other stakeholders. The research will also re-examine the extant literature on this subject. Identifying and articulating the challenges faced by senior citizens during travel will elevate awareness and propel efforts to refine their travel experiences. This will render travel more inclusive and enjoyable for this vital segment of our population.

### **Literature Review**

The challenges confronted by senior citizens when travelling by train have been thoroughly documented in the literature. A study conducted by the National Rail Passengers Association (NRPA) discovered that elderly people are more prone to endure difficulties such as mounting and descending trains, locating their seats, and hoisting luggage. The study also found that senior citizens are more susceptible to falling victim to criminal offences

on trains. Another study, executed by the Indian Railways, ascertained that elderly individuals are more likely to grapple with issues of train timetables, delays, and cancellations. Additionally, the study established that senior citizens are less conscious of the various concessions and amenities accessible to them.

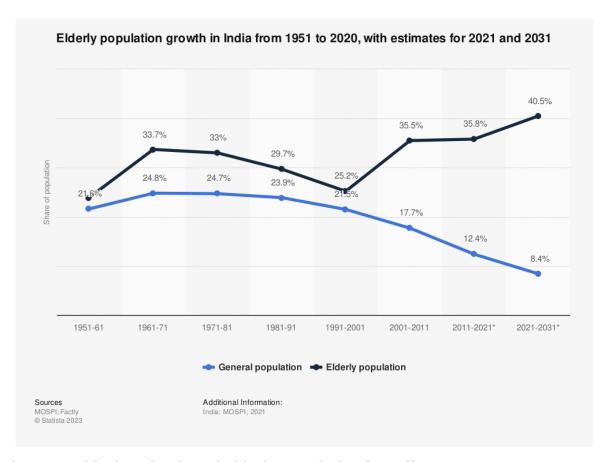
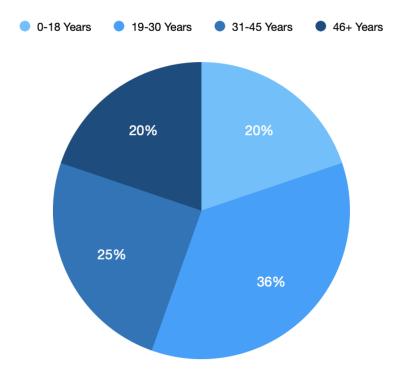


Fig. 1 Graphical Projection of Elderly Population in India

As per the India Ageing Report 2023, published by the United Nations Population Fund (UNFPA) in September 2023, there are



149 million elderly citizens in India, constituting 10.5% of the total population. The senior citizen demographic in India is proliferating at a more expeditious pace than the overall population. This is attributable to various factors, including dwindling fertility rates and augmenting life expectancy.

Fig. 2 Age Group Distribution of Train Travellers in India

The distribution of the populace of train travellers in India is heavily lopsided towards the younger age cohorts. As per the Indian Railways, the majority of train voyagers are between the ages of 19 and 45 years. The 46-60 year olds and 60+ year olds each constitute approximately 10% of total train passengers.

There are several rationales for this skewed age dissemination. One reason is that train travel can be physically taxing, especially for elderly citizens with mobility impediments. Another reason is

that senior citizens may be more reluctant to embark on long journeys by train, owing to trepidations regarding their health and safetv.

The Indian Railways has undertaken various measures to render train travel more accessible and affordable for the elderly. For instance, senior citizens are entitled to fare discounts and priority boarding as well as seating arrangements. However, further efforts must be channelled towards addressing the challenges confronted by senior citizens when travelling by train.

# Methodology

questionnaire is designed to garner comprehensive discernment into the challenges endured by elderly individuals during train travel in India, specifically revolving around baggage management. The inquiries aim to capture personal experiences, illuminating difficulties faced during various stages of the journey, such as mounting, descending, and the overall travel encounter. The participants will be prodded to recount specific occurrences and moments that exemplify the challenges they confront, with a distinct emphasis on prevailing luggage storage and handling facilities.

Additionally, the questionnaire solicits perspectives on the suitability of diverse luggage varieties for train travel and investigates the decision-making process for senior voyagers when packing for an excursion. Furthermore, the participants will furnish feedback on the assistance received from railway personnel and fellow passengers and voice any safety concerns related to baggage during train sojourns.

Ultimately, the objective is to uncover invaluable insights that can inform design enhancements in the train travel system, rendering

it more accommodating and accessible for elderly passengers regarding luggage oversight. The assembled information will be instrumental in pinpointing areas for improvement innovation, contributing to a more comfortable and secure travel experience for senior individuals in the context of train travel in India.

### **Key Insights from Interviews with Elderly Passengers**

Elderly passengers face numerous challenges when organizing their luggage during train travel in India, encompassing the weight of the baggage, the scarcity of space on the train, the number of steps to ascend, the lack of lifts at train stations, the unavailability of porters at train stations, the absence of information about luggage handling services, the expenditure of luggage handling services, and deficient security for luggage.

Common suggestions from senior voyagers for streamlining train travel include furnishing more luggage trolleys at train stations, mitigating overcrowding in train compartments, installing more lifts at train stations, employing more personnel to assist with baggage, appointing more porters at train stations, instituting a unified point of contact for details regarding luggage handling services, decreasing the rates of luggage handling services, and elevating security for luggage at train stations.

One vital insight from the interviews is that elderly passengers often struggle to convey their baggage owing to the weight and numerous steps they must climb. This indicates the necessity for more luggage trolleys and lifts at train stations. Another key revelation is that senior travellers are frequently baffled by the various luggage handling services and accompanying rules and

regulations. This implies the need for a centralized hub for information about luggage handling services.

By tackling the cardinal challenges and implementing the suggestions of elderly passengers, Indian Railways can transform train travel into a more affirmative experience for all travellers, especially the elderly.

#### Persona

Persona Information



## Mamta

"SingleMother"

Age: 58 years

Location: Bilaspur, Chhattisgarh

Work & Income: Clerk in District Edu. Dept., 5-5.5 LPA

Family Status: Widowed, 2 children (Both adults)

Medical Condition: Sciatica pain in left leg

#### **Goals and motivations**

- To visit her loved ones and enjoy the world around her
- To maintain her independence and selfreliance
- To feel safe and comfortable during her travels

#### Pain points and challenges

- Managing her luggage, especially on long train inurneys
- · Navigating the railway station
- · Feeling like a burden to her children
- Traveling alone

#### Behaviors and attitudes

- Mamta is a shy and gentle woman.
- She is always putting her family first.
- She is determined to provide for herself and her children.
- She is resilient and determined.
- She is hesitant to ask for help from others.

#### Quote

"I'm just hoping to get to my destination safely and comfortably."

Fig. 3 Persona of a 58 years old, kind and gentle-hearted single mother

Figure 3 shows Mamta, a woman in her late 50s, who suffers from a medical condition that doesn't allow her to pick up any sort of heavyweight. She is reluctant to travel by train, carrying heavy luggage. Mamta's persona can be used to study the problems that women travelling alone by train face and to create solutions to these problems.

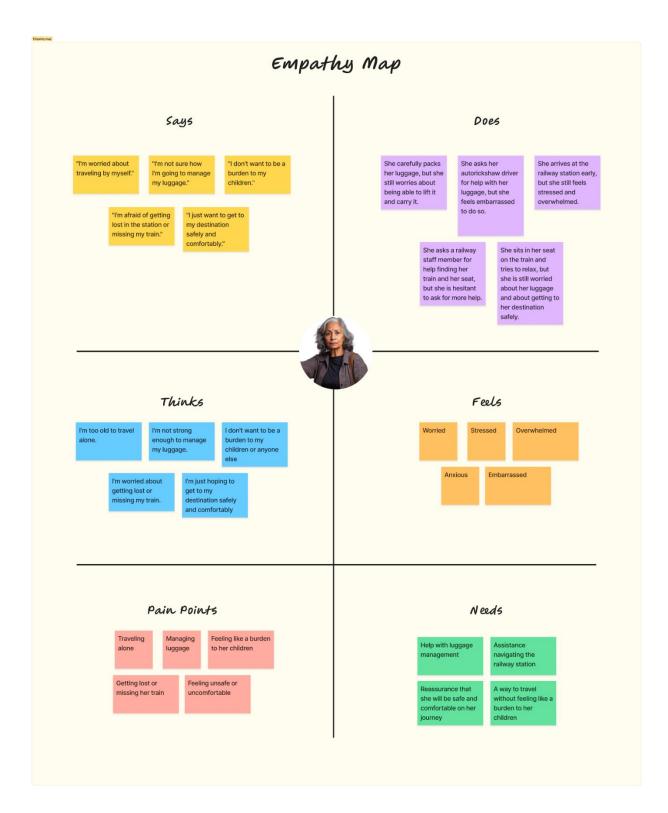


Fig. 4 Empathy Mapping of Mamta

# Journey Mapping Pre-Journey

 Mamta packs her roller trolley as lightly as possible, however, she must still convey certain indispensable items and her metal chain and lock as a safety precaution, which amplifies the weight of her baggage.

- She is primarily apprehensive about the security of her luggage and frets about it throughout the excursion.
- Mamta arrives at the railway station two hours prematurely so that she possesses ample time to navigate the station and pinpoint her train.
- She searches for signage directing her to her platform and train.
- Mamta is reluctant to request assistance from railway personnel, but eventually implores a staff member to aid with loading her baggage onto the train.
- Once her luggage is stowed, Mamta locates her seat and attempts to unwind. However, she remains anxious regarding the safety of her baggage.

# **During the Journey**

- Mamta expends the journey attempting to relax by reading,
   viewing movies, and conversing with her fellow passengers.
- However, she is yet unable to completely unwind owing to the disquietude surrounding her luggage.
- Mamta verifies her baggage frequently and does not slumber well during the voyage.

### **Arrival at Destination**

- Mamta arrives at her destination securely and on time.
- She is relieved to observe that her luggage is unharmed and intact.

 Mamta is gratified that she was able to conclude her journey, but is also drained from the absence of sleep.



## Prabha Devi

"Independent"

Age: 65 years

Location: Gaya, Bihar

Work & Income: Shop owner, 2.5-3 LPA

Family Status: Married, 2 children (Both adults)

Medical Condition: Arthritis in her knees

#### Goals and motivations

- · To make train travel easier and more comfortable for elderly passengers
- · To buy stocks for her shop
- To feel safe and comfortable during her travels

#### Behaviors and attitudes

- She travels during off-peak hours to avoid the
- She is helpful and considerate. She is always willing to help other passengers.

#### Pain points and challenges

- · Difficulty carrying luggage due to weight and arthritis
- · Lack of space on the train to store luggage
- · Difficulty climbing stairs to get on and off the train
- · Lack of lifts at train stations

#### Quote

" "I love traveling by train, but it can be difficult to manage my luggage. More luggage trolleys and lifts at train stations would make a big difference."

Fig. 5 Persona of a 65-year-old, self-reliant, hardworking woman

Figure 5 shows Prabha Devi, a woman of lower-middle-class. She is of age 65 and frequently travels by train to bigger cities, to purchase goods wholesale for her shop. She faces several challenges, including physical strain, stress and anxiety, and financial burden.

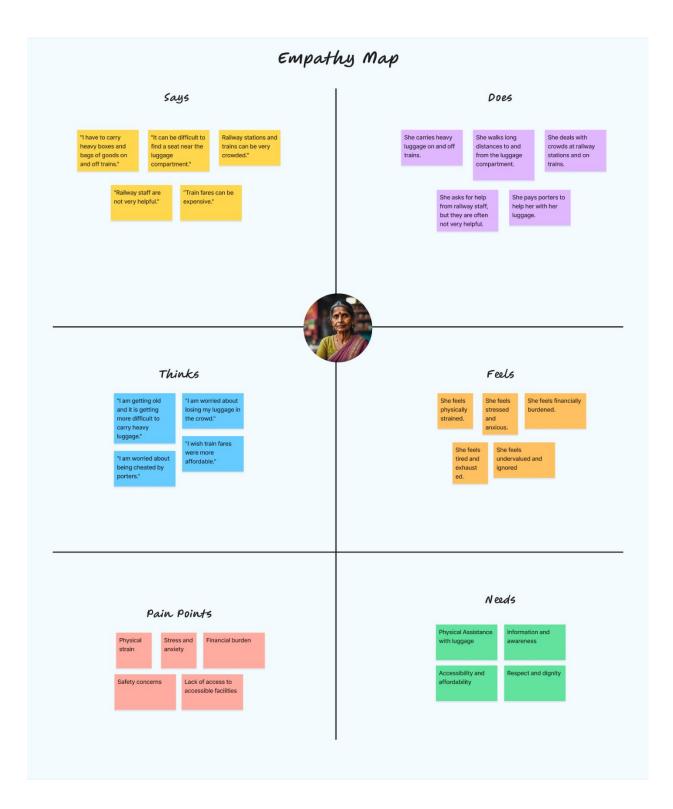


Fig. 6 Empathy Mapping of Prabha Devi

# **Journey Mapping**

### **Pre-Journey**

 Prabha Devi becomes cognizant of the wholesale market from other vendors, companions, and family.

- She contemplates the expenditure of venturing to the metropolitan area and the prospective profits from retail of the merchandise she procures.
- She attempts to garner further insights regarding the market by conferring with individuals who have visited previously.
- The woman borrows capital from her family or allies to address the costs of travel and goods.
- She reserves a train ticket from the reservation counter at the railway station and packs a light bag with her essentials.

### **Journey to the City**

- Prabha Devi handily locates a seat on the train, since she possesses less baggage.
- She can unwind and relish the train voyage since she is unencumbered by cumbersome luggage. However, she still frets about her return excursion.
- She reaches the city and asks for directions to the market.
- She searches for the most economical transportation to the market. She decides to proceed by foot.
- She arrives at the market mildly fatigued. She purchases all the requisite merchandise she desires.

# **Return Journey**

- Prabha Devi gathers all her commodities and seeks an autorickshaw to return to the train station.
- She arrives at the train station and implores the driver to assist in reaching the platform and conveying her baggage.

• She awaits the train's advent. She is troubled regarding loading the luggage onto the train.

- As the train pulls in, she hesitantly requests aid from nearby individuals and has her luggage stowed on the train.
- She looks for a seat with more room for her belongings. She finally secures a seat and relaxes briefly. She is already drained and is anxious about arriving at her shop.

### Arrival at Destination

- Prabha Devi arrived at her destination without incident and in a timely fashion.
- She is relieved to observe her luggage is undamaged and intact.
- Prabha is gratified to have completed her journey but is also exhausted from the exertion.

### **Challenges Faced by Elderly Passengers**

Aged travellers on Indian Railways encounter several difficulties managing luggage, including health restrictions, little help from others, crowded cars, and poor luggage storage. These issues heavily impact the elderly physically and emotionally.

#### **Health Restrictions**

As seniors age, they often lose strength and mobility, making lifting heavy bags taxing, especially for overhead storage. A study by a Delhi research group discovered over 70% of elderly riders struggle with storing luggage above.

This can strain muscles, cause tiredness, and other health problems. Seniors also risk injury if unable to load baggage safely.

**Little Help From Others** 

Many ageing passengers lack assistance from fellow travellers and

railway personnel. Studies indicate limited awareness and

availability, with only 20% of seniors receiving help with their

bags.

This leads to aggravation and unease for the elderly. They may

feel embarrassed or powerless when forced to manage alone,

making future train travel unappealing.

**Crowded Cars** 

Packed trains hinder ageing riders from moving around and

stowing their luggage. For those with impairment, this introduces

risks like falling, wounds, and breathing issues. A global health

watchdog found overcrowding a common Indian railway problem,

endangering older travellers.

**Poor Luggage Storage** 

Storage racks on trains are often too narrow or too high, without

room for large baggage. A railway system analysis discovered just

half of the compartments have adequate senior luggage capacity.

This causes hassle and trouble for the elderly. They may need to

carry bags throughout journeys, proving tiring and difficult.

**Impact on Elderly** 

The luggage challenges ageing passengers face heavily impact

them physically, including fatigue and injuries, and emotionally,

including distress, seclusion, and travel avoidance.

• Physically, elderly passengers may experience fatigue, muscle strain, and other health problems. They may also be at risk of falls and injuries.

• Emotionally, elderly passengers may experience distress, frustration, and isolation. They may feel embarrassed, helpless, and discouraged from travelling by train in the future.

### The Beginning of Their Challenges

Senior citizens encounter luggage handling issues from the instant they exit their residences to navigate to the railway station.

They frequently need to lift and carry their baggage up and down staircases, load and unload items from automobiles, and traverse bustling civic spaces.

At the railway station, senior citizens often must queue to pay for tickets, check in luggage, and embark on the locomotive. They are also required to negotiate jampacked platforms and railcars.

On the train, senior citizens regularly need to hoist and haul their baggage to and from their seats as well as store belongings in overhead containers. They also must steer luggage through cramped passageways and portals.

# **Existing Solutions to These Problems**

There are a few existing solutions intended to reconcile the luggage handling obstacles for senior citizens in Indian Railways:

**Luggage Carts** - Luggage carts are available at most railway stations but can demonstrate difficulty to manoeuvre for senior citizens, especially those possessing limited mobility. The carts

are recurrently substantial and unwieldy, potentially unable to contain all luggage varieties.

Porters - Porters can be commissioned to assist with luggage handling, but may prove expensive and unreliable. There have been occurrences of porters overcharging senior citizens or seizing their possessions.

Railway Personnel - Railway personnel are designated to endow assistance to senior citizens with luggage operations, but this does not unfailingly transpire. Workers may be engrossed or loath to help, or oblivious of senior citizen requirements.

### Flaws and Ineffectiveness

The existing elucidations own the subsequent deficiencies and failings:

**Luggage Carts** - Carts can demonstrate difficulty to steer for senior citizens, chiefly those possessing limited mobility. They are habitually bulky and lumbering, potentially unable to accommodate all luggage varieties.

**Porters** – Porters can emerge as expensive and unreliable. There have been episodes of porters overcharging senior citizens or pilfering their belongings.

Railway Personnel - Railway personnel are presumed to endow assistance to senior citizens with luggage manoeuvring, but this transpires seldom. Employees may be engrossed or loath to help, or oblivious of senior citizen exigencies.

# **Proposed Solutions**

To mitigate the challenges confronted by elderly passengers in luggage administration throughout Indian train sojourns, the consequent solutions could be executed:

**Dedicated Luggage Assistance Services – One elucidation is** purveying specialized luggage assistance amenities at railway stations. This would encompass trained functionaries who can endow support in hoisting and repository luggage for elderly passengers. This service would be distinctly beneficial for solitary elderly travellers or those possessing limited mobility. Studies display that dedicated luggage aid services can dramatically ameliorate elderly traveller satisfaction and prospective train utilization.

**Enhanced Storage Capacity** - Another solution is optimizing storage capacity within train cars. This could entail furnishing more extensive luggage racks, earmarked areas for larger luggage articles, and inferior overhead containers. This would render storing belongings simpler and more expedient for the elderly. Studies exhibit that augmented storage capacity significantly lessens senior citizen injury risks and augments elderly passenger travel satisfaction.

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