

Shuttle Service for Elderly People

Anvaya B N¹, Mohit Mohan², Anand Prem Rajan³

¹School of Electronics Engineering (SENSE), Vellore Institute of Technology, Vellore, Tamil Nadu

²School of Electronics Engineering (SENSE), Vellore Institute of Technology, Vellore, Tamil Nadu

³School of Biosciences and Technology (SBST), Vellore Institute of Technology, Vellore, Tamil Nadu

Abstract-In any given country the number of elderly people increases with time. Due to the development of healthcare the average age of people is increasing. In a study, it is seen that the average age in India was 21.3 in 1950 and is predicted to go up to 37.1 in the year 2050. Although this says a lot about improving healthcare, they also increase the age of death which means that the number of older people will increase. These elderly people although might not be having any diseases or any major illness but with time the body starts to deteriorate, and people often will become weak and performing daily chores also becomes a problem. In India the percentage of senior citizens has grown from 5.6 in 1961 to 8.6 in 2015, although the government is trying to make special offers to these citizens, for example reserved seats for senior citizens in railways, bus, airways and also discount in their prices, discount in prices in lot daily needs products and etc, but is not that successful. In a busy world like today where no one has the time even look after their parents, these citizens are eligible for a better latter life. The main goal of this project is to provide better transportation by introducing the shuttle cab in every area in each city for their commute to places.

I. INTRODUCTION

According to Population Census 2011, there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males. A report released by the United Nations Population Fund and Help Age India suggests that the number of elderly persons is expected to grow to 173 million by 2026. As regards rural and urban areas, 71% of the elderly population resides in rural areas while 29% is in urban areas. The life expectancy at birth during 2009-13 was 69.3 for females as against 65.8 years for males. At the age of 60 years average remaining length of life was found to be about 18 years (16.9 for males and 19.0 for females) and that at age 70 was less than 12 years (10.9 for males and 12.3 for females). Kerala has got the highest life expectancy at birth, followed by Maharashtra and Punjab. The life expectancy at birth in Kerala is 71.8 years and 77.8 years for males and females respectively as per the SRS Report 2009 - 13. For 2013, the age-specific death rate per 1000 population for the age group 60 - 64 years was 19.7 for rural areas and 15.0 for urban areas. Altogether it was 18.4 for the age group 60 - 64 years. As regards, sex-wise, it was 20.7 for males and 16.1 for females. The old-age dependency ratio climbed from 10.9% in 1961 to 14.2% in 2011 for India as a whole. For

females and males, the value of the ratio was 14.9% and 13.6% in 2011. In rural areas, 66% of elderly men and 28% of elderly women were working, while in urban areas only 46% of elderly men and about 11% of elderly women were working. The per cent of literates among elderly persons increased from 27% in 1991 to 44% in 2011. The literacy rates among elderly females (28%) is less than half of the literacy rate among elderly males (59%).

II. OBJECTIVES

The main objective of the project is providing shuttle cab service in every area of India that will be used for commute for the elderly people only. Why not use the local cab service? This not only provides a way of transportation but in half the price of normal cabs of autos. Each cab consists of a driver, helper for assistance and a wheelchair for disabled people and works round the clock. They can be contacted using a simple helpline or a mobile app. They will also be present at your place in less than 10 min as they are present very nearby.

Although the major objective is listed above but being an enterprise we need to have small step by step goals to reach to a greater level.

- To kick start the enterprise in a major city and then improvise it to other cities
- To raise funds and acquire people who truly care to invest in it.
- To study how and where this service required the most and to implement in all the places in the country
- To get government permission and support for a better discount on the prices so the customers can travel cheaply

III. METHODOLOGY

The initial process involves a lot of funding requirements. Corporate companies, private organizations or even Non-Profit Organizations can be contacted for meeting the primary financial requirements. Specific companies which have similar socioeconomic motive could be of great help. They can be made shareholders or representatives from partner organizations could be included in the board of members. This is to be followed by the selection of suitable workers and other skilled labour. We will be needing an about 10 software engineers for designing web pages and also for social media marketing and other forms conveying the people about this company.

The social enterprise is planned to kick start in Bangalore which consists of about 90 neighbourhoods and if we provide one shuttle cab for each neighbourhood that is we would need 90 cabs and 2 workers (driver and the helper) for each cab we would need about 180 people just to start it Bangalore.

How investment is required?

The price of one shuttle cab is about 4 lakh rupees and the cost for 90 cabs will be 3.6 crores.

The salaries for the first few months also should be given by hand as there is very less possibility, we will make any profit in them. if the driver and the helper are paid 20 -25 thousand each a total of 36-45lakh will be spent.

Hence taking all these numbers into account including office space and other miscellaneous stuff about 4 crore rupees of investment must be made.

For all this, to successful, we must have investors such as automobile companies and other healthcare companies who are willing to social help to invest in it. Surveys to take to a higher level

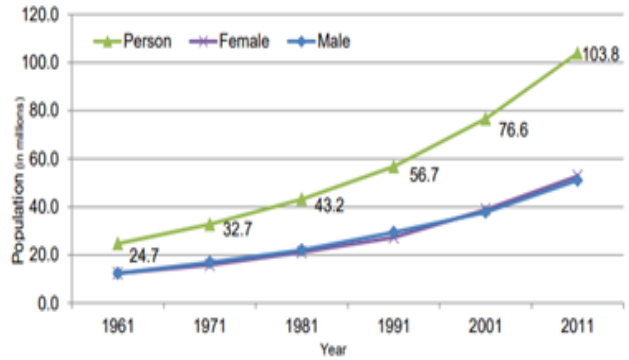


Fig 2:- Elderly Population Graph

This study shows that the population of elderly people just keeps increasing with time and this enterprise will be totally helpful.

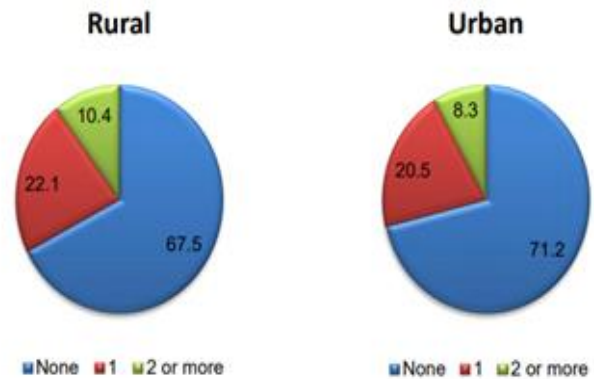


Fig 3:- Per cent distribution of households by the number of aged members

Here, we can see that no of old aged people is more in rural areas and implementing this in rural areas will be helpful.

IV. TIMELINE

- *Website:* websites have to be made in order to market or advertise our product so that people are aware of its existence. Social media marketing and house to house marketing will help on a large scale. (2-3 weeks)
- *Buying the Cabs:* shuttle cabs must be bought and also the people should be hired for the work (2 -3 months)
- *Execution:* Proper planning and setting up of shuttle station in every neighbourhood and instructing the workers about their work and how they are supposed to do it. (1-2months)
- *Deployment:* the cabs are deployed to their respective stations and ready to be contacted. (1-2 weeks)

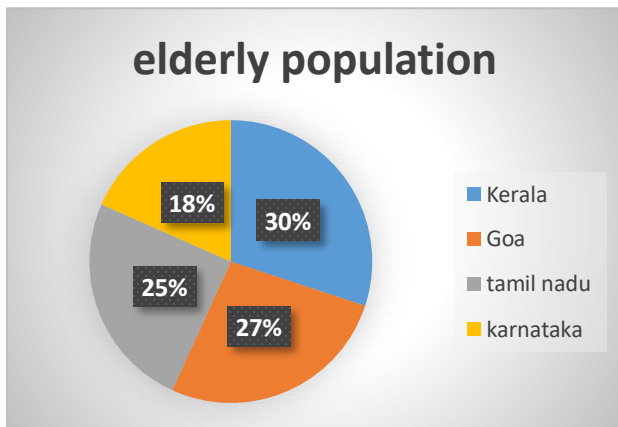


Fig 1:- Distribution of the elderly population in a few states.

These are some states that have a high percentage of elderly people compared to other states.

Bangalore being a city in Karnataka has about 10.7% of its total population to be senior citizens.

Hence, starting the programme in Bangalore will be good for further development.

- *Building a Mobile App for Helpline Services:* Mobile app services like Emergency detection, Maintenance, etc. can be started soon after production starts. (2 months).

V. CONCLUSION

The service can be started in almost 6 -7 months with an initial investment of 4 crores. The shuttle cabs will at every elderly's doorstep and will be ready to help. There might be some confusion in the initial stages but will be rectified with time and with user feedback.

REFERENCES

- [1]. http://mospi.nic.in/sites/default/files/publication_reports/ElderlyinIndia_2016.pdf
- [2]. <http://www.jmedsoc.org/article.asp?issn=0972958;year=2016;volume=30;issue=1;spage=15;epage=19;aulast=Agrawal>
- [3]. <https://www.panchayatgyan.gov.in/documents/30336/109986/THE+PATTERN+OF+THE+DISTRIBUTION.pdf/b4fc286a-8c73-44ec-b7d1-443c8fe4c92d>
- [4]. <http://vikaspedia.in/social-welfare/senior-citizens-welfare/senior-citizens-status-in-india>
- [5]. https://www.google.co.in/search?q=percentage+of+senior+citizens+in+india&rlz=1C1CHZL_enIN779IN779&oq=percentage+of+senior+citizens+in+india+&aqs=chrome..69i57j0l3.10495j1j7&sourceid=chrome&ie=UTF-8
- [6]. <https://en.seinsights.asia/2017/06/12/company-created-accessible-shuttle-service-mobility-problems-can-travel-ends-earth-2/>