

# **Understanding the Potential of Reverse Mortgages in India: A Study of Senior Citizens Perceptions and Attitudes**

## **Research Report**

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# CHAPTER I

## INTRODUCTION AND DESIGN OF STUDY

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## CHAPTER I

### INTRODUCTION AND DESIGN OF STUDY

#### 1.1 INTRODUCTION

For many families worldwide, housing is their most valuable asset (Barwell *et al.*, 2006; Benito *et al.*, 2006). Whether the family income is lower, middle, or high, owning a home tends to be its most representative asset, partly reflecting lifelong savings. Home equity is an important component of wealth for most senior households in the European Union (EU) and the United States of America (USA) (Haurin and Moulton,2017). In developing countries like India, being a property owner is one of the most highly esteemed goals for people in their lives. In addition to instilling pride in oneself during youth, owning property provides stability in the later part of their life ( Pahuja and Sanjeev,2016) But a significant concern is that many homeowners wind up having little money left over to pay for their household expenses, large financial outflow owing to illness, etc. when they retire.

Globally, there are 1.1 billion persons aged 60 years or above in 2022, comprising 13.9 percent of the total population of 7.9 billion (World Population Prospect,2022). An aging population has become one of the most important social problems facing countries across the globe (Han and Jiang, 2019). As a sub-continent that houses around one-fifth of the world's population, India has become a potential hub for old-age population. There are 149 million persons aged 60 years and above in 2022 (as of 1 July), comprising around 10.5 percent of the country's population. By 2050, the share of older persons will double to 20.8 percent, with the absolute number at 347 million (India Ageing Report,2023<sup>1</sup>). Experience from other countries demonstrates how well the house-for-pension program can incorporate and utilize the full benefit of enabling senior citizens to own

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<sup>1</sup> [https://india.unfpa.org/sites/default/files/pub-pdf/20230926\\_india\\_ageing\\_report\\_2023\\_web\\_version\\_.pdf](https://india.unfpa.org/sites/default/files/pub-pdf/20230926_india_ageing_report_2023_web_version_.pdf)

property and be able to pay for their necessities. There are increasing concerns about the sustainability of the social security systems and the adequacy of retirement savings in households that help senior citizens to mitigate through their twilight years (Banks *et al.*,1998; Kotlikoff, 2001; Scholz *et al.*,2006). Thus, there is an increasing need to create sustainable and practical strategies to support the elderly as India's population ages. Accordingly, the Government of India's Union budget 2007-08<sup>2</sup> provided an innovative product after carefully examining various economies namely, Reverse Mortgage Loan (RML).

Reverse Mortgage Loan which is popularly known as home equity conversion (HEC) in other countries allows older people to use the wealth they have tied up in their homes to support a more comfortable retirement period, either by the occasional expenditure of lump sums or the regular expenditure of small sums to fund consumption which could not be sustained by their normal disposable incomes. The lump sums may be used to purchase recreation, e.g., discretionary medical or surgical procedures, or more mundane expenditures such as house repairs and the like.

It is a way of tapping home equity much needed in the financial crunch during old age. Reverse mortgages (RM) or home equity conversion mortgages enable property to be converted into cash flows guaranteed by the subsequent sale of an asset, while still guaranteeing borrowers the right to use the property concerned (Cosma *et al.*, 2019). In other words, A reverse mortgage is a scheme wherein senior citizens who are owner-occupiers of houses can receive fixed monthly installments in the form of pensions (Han *et al.*, 2017). Under an RML a senior citizen who is the owner of a house can avail of a monthly stream of income against the mortgage of his/her house, while remaining the owner and occupying the house throughout his/her lifetime, without repayment or

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<sup>2</sup> [https://www.indiabudget.gov.in/budget\\_archive/ub2007-08/ubmain.htm](https://www.indiabudget.gov.in/budget_archive/ub2007-08/ubmain.htm)

servicing of the loan (Union Budget 2007-2008<sup>3</sup>). One of the major advantages of RML is that borrowers are able to stay in their own homes in locations and social environments that they are accustomed to, where their friends are likely to live, and where they have intimate knowledge of the facilities and services available. From a sustainable development goals perspective, HEC products \ Reverse mortgage products can contribute to improving the financial inclusion of elderly people and reducing the demand for new houses, thereby improving the flexibility of real estate management and the efficiency of the second-home market.

## **1.2 ORIGIN OF REVERSE MORTGAGE**

Reverse mortgages trace their origin to the early 1960s in the USA and later many countries adopted this concept. Beginning in the 1960s, Nelson Haynes of Deering Savings & Loan in Portland, Maine, introduced the first product that was comparable to a reverse mortgage. These early varieties, however, were infrequently employed and were very different from current reverse mortgages. The federal government in the USA acknowledged the potential advantages of reverse mortgages for seniors, especially those on fixed incomes. The concept as such gained popularity in the 1980s, although demand did not grow quickly. However, once the Federal Housing Administration (FHA) stepped in and provided insurance to qualified lenders to safeguard them against loss in the event that the value of loans exceeds recoverable funds at the time of the final sale of mortgaged houses, the market began to pick up steam. Lenders may associate with one of two federal programs offered:(a) the FHA Home Equity Conversion Mortgage (HECM) or Fannie Mae (FNMA) Homekeeper. Both have maximum loan restrictions that vary according to the borrower's age, among other factors. The HECM program, which was insured by the government

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<sup>3</sup> [https://www.indiabudget.gov.in/budget\\_archive/ub2007-08/ubmain.htm](https://www.indiabudget.gov.in/budget_archive/ub2007-08/ubmain.htm)

and established the foundation for reverse mortgages as we know them today, was introduced by the FHA in 1987. This was a pivotal moment in the development of reverse mortgages. To supplement their retirement income, pay for medical costs, or make home modifications, seniors may use reverse mortgages to tap the equity in their homes. However, there are also certain concerns and things to consider, like how they might affect long-term financial planning and inheritance. HECM products are becoming increasingly important because they make it possible to convert physical assets particularly residential real estate into financial forms by turning the property's worth into cash flows. For instance, HEC mortgages allow property to be turned into cash flows that are ensured by the sale of an asset later on, all the while preserving the borrower's right to occupy the subject property. Apart from these initiatives, a California-based provider also offered loans up to US\$750,000 (Gutner,1998).

### **1.3 PRACTICES AROUND THE WORLD**

#### **The United States of America (USA)<sup>4</sup>**

The initiation of the Reverse Mortgage (RM) program in the United States marked a pioneering effort, with a bank in Maine structuring the first RML in 1961 and HECM with the federal regulations coming much later in 1987. Notably, in 1989, a Kansas-based company issued the initial HECM insured by the FHA. A distinctive feature of the USA market is the involvement of FHA providing mortgage insurance and Ginnie Mae guaranteeing timely payments on mortgage-backed securities. Ginnie Mae, or the Government National Mortgage Association, plays a crucial role in the mortgage market by guaranteeing timely payments on mortgage-backed securities

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<sup>4</sup> <https://www.investopedia.com/terms/h/hecm.asp>  
[https://www.hud.gov/program\\_offices/housing/sfh/hecm/hecmhome](https://www.hud.gov/program_offices/housing/sfh/hecm/hecmhome)

(MBS). This guarantee assures lenders that they will receive timely principal and interest payments, even if borrowers default on their mortgages. Both entities operate within the US Department of Housing and Urban Development. HECM contracts dominate the market, comprising 95%, while private contracts make up the remaining portion. The popularity of HECMs surged in 2009 but experienced a decline in subsequent years, attributed to increases in insurance premiums, a reduction in home prices, and a decrease in financial firms offering the product. As of October 2023, the HECM Program remains positive in the financial year 2023<sup>5</sup>.

### **United Kingdom (UK)**

In the UK, the counterpart to an RML is the Equity Release Mortgage (ERM). Unlike the USA where RML are typically government-backed, equity release in the UK is provided by private firms. The market is regulated by the Equity Release Council, a self-regulating body established in 1991, which oversees the industry and issues guidelines for ERM providers. All equity release contracts in the UK include a no negative equity guarantee (NNEG), akin to the non-recourse condition found in the USA reverse mortgage loans. A distinctive feature in the British market is the availability of an alternative contract known as home reversion, where the provider assumes ownership from the outset. Loan-to-value ratios are maintained below 50% to mitigate NNEG risks, with most elderly homeowners receiving the highest proportions. Another notable contrast with the USA market is the absence of an upfront premium. Instead, a quarterly fixed premium is charged throughout the contract, with its expected present value serving a role similar to an upfront payment. According to the Equity Release Council, in the first half of 2020, there were 18,420 new ERM plans, representing a 14% reduction from 2019. Since 2017, the quarterly average has

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<sup>5</sup> <https://www.nrmlaonline.org/2023/11/17/health-of-hecm-program-remains-positive-in-fy23#:~:text=By%20the%20numbers%3A,Claim%20Amount%20of%20%2416.16%20billion.>

hovered around 10,000 new plans. In the UK, HEC loans were promoted with investment schemes, allowing homeowners to borrow against their properties to invest in bonds and other financial products. However, the additional investment component introduced significant complexities, diverging from the concept of a pure HEC scheme. An alternative financial instrument known as the shared appreciation mortgage (SAM), was introduced to enable homeowners to exchange future appreciation in property value for an upfront lump sum. Some SAM products offered lower interest rates in exchange for a share of future appreciation. The Bank of Scotland introduced a SAM product in late 1996, and Barclays, a major British bank, offering diverse financial services globally, including retail and investment banking followed suit in 1998. Although Barclays initially had over 3000 customers taking up these loans over a period of time, they have discontinued marketing the product. One reason for discontinuation could be the complexity and potential controversy surrounding shared SAM. These mortgages bound homeowners to a portion of future property appreciation; as a result, banks may have stopped marketing the product due to questions regarding the fairness and implications of such agreements. Furthermore, changing market dynamics and regulatory factors might have had an impact on the decision to stop using SAMs.

### **People's Republic of China**

China introduced the Home Reverse Mortgage (HRM) program in 2010 to provide elderly homeowners aged 60 or above with a way to convert a portion of their home equity into a stream of income. The program is government-sponsored and managed by the China Construction Bank, allowing participants to receive monthly payments while retaining ownership of their homes. Repayment is typically made upon the homeowner's death or when the property is sold, providing financial support to China's aging population. In 2014, HRM went into effect in Beijing, Shanghai,

Guangzhou, and Wuhan. It is projected that China will have more than 400 million old people by the year 2050. Furthermore, the '4-2-1' model of the modern urban family structure in China often consists of four elderly individuals, two middle-aged people, and one teenager, indicating that the elderly represent a significant and expanding economic demand in China.

## **Japan**

Japan's demographic trend places the country at the forefront of population aging issues, indicating a significant potential for an RM market. However, the continuous decline of home values after the real estate bubble in the 1990s hindered its development. The first RM program in Japan began in 1981 in western Tokyo, sponsored by the local government. Although different financial institutions offered RMs around the year 2000, the product took off after an innovation by the Tokyo Star Bank in 2015 proved successful in enticing the homeowner's interest. The innovation lies with the introduction of the 'deposit collateralized reverse mortgage'. Unlike traditional reverse mortgages, this innovative offering allows elderly individuals, to use their substantial deposits as collateral. Notably, the interest rate remains at zero until the drawn amount surpasses the borrower's deposit balance. This feature enables homeowners to maintain their deposit balances for unexpected expenses while accessing funds for daily expenditures through the reverse mortgage. After the success of this product, the three largest banks in Japan began to offer similar RM products. However, the Japanese RMs differ from the Western models wherein the lump sum mostly goes to home improvements or purchasing a home for the elderly people's children. There is also the possibility to pay for nursing care or even to refinance an existing loan. The Japanese government has been actively promoting these loans to support senior citizens, particularly in light of the country's rapidly aging population.

## **Australia**

In the early 1990s, the first Reverse Mortgages in Australia were introduced by the Advance Bank. By 2006, the market had expanded to include more than 20 providers, and by 2008, over 40,000 Australians had availed themselves of Reverse Mortgage loans double the number from just three years prior. Australia's equity release landscape is diverse, resembling the UK in its limited government involvement. The available options encompass RM, home reversion, and an equity release agreement. For 60-year-old homeowners in Australia, the potential loan amount can reach up to 20% of the Loan-to-Value ratio (LTV). Older homeowners typically receive an additional 1% per year beyond the age of 60. Since 2013, Reverse Mortgages in Australia come with negative equity protection, providing a safeguard for borrowers. Negative equity protection ensures that in the context of reverse mortgages, borrowers need not pay more than their home's value, safeguarding them from potential financial losses due to declining property values, etc. In the case of a home reversion, homeowners have the option to sell a portion of the future value of their homes. The loan provider of the loan pays a discounted value for the portion that they purchased. When the contract concludes, the home is sold, and the provider receives their proportion of the proceeds, usually in the form of a lump sum. Alternatively, under the equity release agreement, the homeowner sells a fraction of their home and receives a lump sum. The loan provider not only acquires that proportion but also charges an initial fee. Over the course of the contract, the provider levies additional fees, typically calculated as a percentage of the home's value. At the contract's conclusion, the provider receives their agreed-upon proportion when the home is sold.

## **Singapore**

Singapore did not wait for financial prosperity to produce the funds necessary to fund the social infrastructure. Rather, since its abrupt independence in 1965, it has continuously worked to

integrate retirement savings and healthy living arrangements into the national production function (Reisman,2007). Singapore is a country where roofs and retirement have become two sides of the same coin. Singapore has its own version of reverse mortgage products known as the ‘Housing and Development Board (HDB) Lease Buyback Scheme<sup>6</sup> for elderly citizens living in HDB flats. The Lease Buyback Scheme (LBS) in Singapore allows eligible households to sell the tail-end lease of their flats to HDB. They receive an LBS bonus based on the Central Provident Fund, top-up amount. Top-up requirements vary by age, and owners must meet specific Retirement Account thresholds. The LBS bonus is determined by the total top-up, with options to retain cash proceeds up to \$100,000. Owners can choose the lease period based on the youngest owner's age, influencing net proceeds.

## **Poland**

Poland is a prime example of a post-socialist nation that is united by state legacy welfare which is defined by widespread mortgage-free homeownership (Stephens *et al.*,2015). Poland’s proposed reverse mortgages act aims to enhance borrower safety by regulating entities allowed to grant reverse mortgages and specifying product rules. Borrowers, limited to property owners over 65, retain property ownership, receiving funds in installments or a lump sum. Strict lender criteria include only banks, ensuring oversight by financial authorities. The act prioritizes borrower protection with detailed disclosures, a 30-day withdrawal period, and restrictions on termination conditions for banks. While borrower heirs have 12 months to repay after the borrower's death, the act presents potential challenges for lenders, possibly affecting its attractiveness.

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<sup>6</sup> <https://www.hdb.gov.sg/residential/living-in-an-hdb-flat/for-our-seniors/monetising-your-flat-for-retirement/lease-buyback-scheme>

## **South Korea<sup>7</sup>**

In South Korea, the practice of reverse mortgage loans is exemplified by the Reverse Mortgage for the Elderly program. Introduced in 2007, this program was developed to address the financial needs of the country's aging population. The Korean Home Pension is a government-guaranteed reverse mortgage for senior citizens who own a home but lack sufficient cash flow. Eligible individuals can use their homes as collateral to receive a lifetime monthly payment. The program offers benefits such as lifetime payments, government guarantees, low interest rates, low initial costs, and tax benefits. Eligibility criteria include homeowners or spouses aged 55 or older, ownership of a house with a total declared value of Korean Republic Won 1200 million or less, and adherence to specific house eligibility criteria. The program excludes certain property types, and encumbrances, and requires the termination of existing mortgages or leases for participation. Appraisal methods for monthly payments are based on real estate values and market prices.

## **Hong Kong<sup>8</sup>**

In the sub-replacement fertility and aging context, the HECM was adopted as a model by Hong Kong Mortgage Corporation Limited (HKMC) to develop the Reverse Mortgage Programme and offered insurance for member banks to bear longevity risks and interest rates. HKMC Insurance Limited (HKMCI) allows individuals aged 55 or above to use their residential properties as collateral for reverse mortgage loans. Borrowers receive monthly payouts over a fixed term or their entire life, with the option for lump-sum payouts. Repayment is generally not required during the borrower's lifetime. If terminated, the property owner has the right to redeem the property, and any shortfall is covered by HKMCI under an insurance arrangement. Eligibility

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<sup>7</sup> [https://www.hf.go.kr/en/sub03/sub03\\_01\\_01.do](https://www.hf.go.kr/en/sub03/sub03_01_01.do)

<sup>8</sup> [https://www.hkmc.com.hk/eng/our\\_business/reverse\\_mortgage\\_programme.html](https://www.hkmc.com.hk/eng/our_business/reverse_mortgage_programme.html)

criteria include age, Hong Kong residency, and property ownership details. The program offers flexible payment terms, rent-out options, and a cooling-off period. Monthly payout amounts depend on property value, borrower age, and chosen payment term. Costs include interest, mortgage insurance premiums, counseling fees, and legal fees. The borrower can opt for a floating or fixed-rate mortgage plan, each with its own payout structure.

#### **1.4 REVERSE MORTGAGE LOAN (RML) VS SALE AND LEASEBACK (SLB)**

In contrast to RML, under an SLB plan, a banker/investor gives the borrower an upfront portion of the house's value in exchange for title. Since no further payments are made on the property until vacant possession is granted and the remaining purchase price is due, the borrower effectively receives interest-free financing. Until they voluntarily relocate to a different type of housing, like a nursing home, the borrower is entitled to live in the house for the rest of their lives. Technically, both the parties (borrower and lenders) have entered into a futures contract, whereby the price is fixed for future delivery, and delivery is contingent upon payment of the remaining purchase price. There are no financing charges for the remaining purchase price during the interim period; all capital gains (or losses) for the duration of the contract belong to the banker /investor. There are no appreciable changes to the living situation because the borrower has a lifetime lease and can stay in their home.

In many countries, a significant proportion of households' wealth is still in the form of houses and other tangible assets (Lindbergh *et al.*,2008). Due to this circumstance, households' accumulated savings are less liquid and have less capacity to be used for both regular and sporadic needs as well as to supplement pension income. India's housing market will improve and the pressure on the pension system could probably decrease with strong RML products. A comprehensive estimation of three essential components is necessary for an RML product namely

life expectancy of the borrowers in this segment, the trajectory of future home prices, and interest rates. The risks attributed to RML products are majorly in the above three variables.

### **1.5 MOTIVATION FOR THE STUDY**

The motivation for this study is rooted in the profound demographic shift and the untapped potential within India's aging population. The median age of India's population is 28.2 years, India's life expectancy in 1950 was 35.21 and it will be 81.96 in the year 2100 (World Population Prospects,2022<sup>9</sup>). To understand this, it must be noted that India's life expectancy in 2022 is 70.19. In 150 years, India's improvement will be 57%, if we go by the estimates. It is evident from the above statistics that there is an enormous potential to expand. Despite this fact, the government's programs on reverse mortgages have not effectively reached the recipients in a significant way. This gap underscores the urgency of exploring the reasons behind the same more from the borrower's perspective. The study seeks to investigate the feasibility of providing sustainable financial solutions for India's elderly population.

In spite of the associated benefits, the demand for HEC products is very limited and needs to be thoroughly researched (Davidoff *et al.*,2017; Nakajima and Telyukova, 2017). The present study is in line with the existing body of work that focuses on RML products and our work focuses more precisely on the perception and attitude towards RML products. Thus, our study largely captures the demand side concerns and advances the understanding of research in this field.

### **1.6 SCOPE OF THE STUDY**

The scope of the study is primarily focused on the perception and attitude of the borrowers with reference to RML products in India. As of 2022, India hosts 149 million individuals aged 60 or

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<sup>9</sup> <https://population.un.org/wpp/>

above, a number projected to double to 347 million by 2050. Thus, there exists a tremendous scope for RML and other similar products. Thus, our current research seeks to contribute valuable insights obtained from the current as well as prospective borrowers about their perception with regard to the current RML products available in India.

## **1.7 OBJECTIVES**

The following are the major research questions:

1. What is the level of awareness and understanding of reverse mortgages among senior citizens in India?
2. What are the challenges and risks associated with the implementation of reverse mortgages in India?
3. What are the key factors influencing reverse mortgage acceptance in India?
4. What policy and regulatory changes are needed to ensure the viability and sustainability of reverse mortgages in India?

## **1.8 METHODOLOGY**

The study uses a mixed-method approach, combining quantitative and qualitative data. This design is the most suitable method to assess the attitude and perceptions of the borrower in line with prior research (Han and Jiang, 2019; Mohammed and Sulaiman, 2018). The primary objective of this study is to gauge the awareness, perceptions, and attitudes of potential buyers toward reverse mortgage products.

To achieve the desired objectives, a structured questionnaire was developed, featuring 10 statements using a 5-point Likert scale, ranging from 'strongly agree' to 'strongly disagree.' These statements were generated through an iterative process based on a comprehensive literature survey.

The survey instrument used in the data collection process was a structured, non-disguised questionnaire, comprising two main sections. The first section aimed to gather socio-economic and demographic information of the respondents while the second section focused on variables related to awareness, perception, and attitude towards RML products.

### **1.9 SOURCE OF DATA, STUDY PERIOD AND SAMPLING**

The study is based on primary and secondary data. Primary data were collected from the targeted audience who are the existing and potential buyers of RML products. Secondary data were collected from census records, journals, e-journals, websites of banks, life insurance companies, and the National Housing Bank. Primary data were collected by administering the questionnaire through email to the targeted population located across the country. The sampling technique that we have adopted is stratified sampling. Accordingly, we have segmented the target population (individuals aged 50 or older) into distinct subgroups/strata based on specific characteristics. Given the research objective of understanding the awareness, perceptions, and attitudes of this particular age group, stratified sampling proves to be the apt choice.

It's important to note that the inclusion of the 50+ age group in India is achieved through purposive/judgmental sampling. In this method, the researcher intentionally selects this segment of the population due to its direct relevance to the study's objectives, even though it may not provide a statistically representative sample of the entire elderly population in India. A total of 112 respondents across the country have been gathered through thoughtful deliberations and discussions with both academicians and practitioners.

## **1.10 TOOLS FOR ANALYSIS**

We have used appropriate statistical tools such as descriptive statistics, contingency tables, and factor analysis to understand and analyze the data. Additionally, a Focus Group Discussion (FGD) was conducted to capture the qualitative views of various stakeholders including bankers, prospective borrowers, subject matter experts practitioners in this field. A detailed description of the models and methodology is given in Chapter 3.

## **1.11 LIMITATIONS**

Any research findings are constrained by certain limitations that also provide specific opportunities for further investigation. The study has been designed to understand the potential of RMLs in India by assessing awareness, perception, and attitude. The Non-probability purposive sampling used in the study lacks randomness, and limited generalizability but provides a deep understanding of the case taken. Though Focus Group Discussions (FGD) are constrained by the potential dominance of certain voices, social desirability bias, and limited generalizability, their advantages lie in generating rich qualitative data, capturing diverse perspectives, fostering participant interaction, and enabling exploration of complex topics in-depth. The Findings of the study may reveal nuanced insights into the factors influencing the acceptance of reverse mortgages, offering valuable considerations for policy-makers and financial institutions. However, it's crucial to recognize that these insights may not be universally applicable across the entire country due to the study's inherent limitations.

## **1.12 MANAGERIAL IMPLICATIONS**

### **1.12.1 Contribution to the Society**

The research on reverse mortgages in India is sparse and a topic of interest. By identifying the financial needs and challenges faced by the elderly population, it offers solutions to improve their financial security and independence. Implementing good reverse mortgage products can positively contribute to society by supporting the elderly in their post-retirement years, reducing their dependence on the government.

### **1.12.2 Contribution to the Regulating Body**

This study provides essential insights for regulatory authorities in India such as the government and financial regulatory bodies like NHB. It addresses the need for standardization and regulation of the existing reverse mortgage products, emphasizing the importance of ensuring transparency and safety for both borrowers and lenders. Regulators can utilize the findings of this research to craft policies related to this segment.

This is the first study to analyze the relationship between psychological variables, such as attitudes toward credit, awareness, and interest in RML products, by empirically assessing whether such variables make an independent contribution to the decision-making process. Focusing on such psychological antecedents, this paper contributes to the literature by providing a psychological explanation of the phenomenon, considering that hardly any other study to date has investigated the interest in RML products from a psychological perspective in the Indian context.

### **1.13 SCHEME OF THE REPORT**

The rest of the report is organized as follows. Chapter 2 provides a literature review, and theoretical foundation and identifies the research gap. Chapter 3 describes research design and measurement. Chapter 4 presents the analysis and findings. Chapter 5 documents the conclusion and direction for further research.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

#### **2.1 INTRODUCTION**

#### **2.2 THEORETICAL FOUNDATIONS**

*2.2.1 Elaboration Likelihood Model (ELM)*

*2.2.2 Theory of Planned Behavior (TPB)*

*2.2.3 Cognitive Dissonance Theory*

*2.2.4 Information-Processing Models*

*2.2.5 Hedonic Consumption Theory*

*2.2.6. Life Cycle Hypothesis*

*2.2.7 Bequest Motive Theory*

#### **2.3 RESEARCH GAP**

## CHAPTER II

### REVIEW OF LITERATURE

#### 2.1 INTRODUCTION

This chapter documents the review of relevant literature on reverse mortgage loans and allied topics of interest. A review of relevant research studies from various research articles, working papers, books, and reports of regulatory authorities published across the world has been studied to identify the research gap and contribute to the existing body of knowledge.

The notion that owning a home might enhance one's well-being as they age is not a new theory to be heard of. The idea of 'asset-based welfare' (ABW), put forth by Sherraden (1991), serves as the theoretical foundation for a more thorough examination of the function of housing as a source of pension income. Accordingly, social transfers and income are inferior to wealth accumulation. As a result, it emphasizes the value of self-provisioning welfare over public welfare from a macro perspective (Ronald *et al.*,2015). But the vast majority of ABW research, as summed up by Prabhakar (2019), concentrates on the significance of amassing financial equities and their 'asset effect'. This can be described as an outcome related to the development of individual capacity, but it disregards the role of housing, which receives a lot of criticism, as housing assets are the dominant component of household wealth (Marcinkiewicz and Chybalski,2022). Researchers (Arrondel *et al.*,2016;Causa *et al.*,2019; Cowell *et al.*,2017) across various countries established that no matter the nation, a person's primary asset is their own home. Home has become even more central as an asset base of individuals especially after the global financial crisis(Ronald *et al.*,2017). Consequently, this criticism has helped to advance ABW, which has since transformed into 'housing asset-based welfare' (HABW). According to Prabhakar (2019), because ABW is focused on non-investment and HABW is focused on

housing investment, housing asset-based welfare has taken the label asset-based welfare but has changed its original content. However, HABW specifically addresses the function of property as a source of income in later life, providing both monetary and in-kind support. However, it also carries danger on an individual basis, particularly for households with lower incomes (Whitehead, 2016). Regarding the policy domain at the national level, there are numerous nation-specific barriers and constraints related to the implementation of HABW (Doling and Ronald, 2010). However, the most vital question from the policy perspective is whether possessing housing assets indeed contributes to poverty reduction among the elderly population (Marcinkiewicz and Chybalski, 2022).

The growing popularity of real estate as a potential source of income for the elderly is linked to the declining government provision of pension and other welfare services for them as a result of budgetary cuts owing to the global economic crisis and as a part of cost reduction mechanism (Ong *et al.*, 2013; Rajagopalan, 2006). The primary home is regarded as the most important asset among the majority of households (Mohammed and Sulaiman, 2018). It is considered a store of wealth that can be tapped in the later part of one's life when income flow is expected to be relatively lower (Modigliani and Brumberg, 1954; Reed and Gibler, 2003). With 87% of India's households owning dwellings, home ownership is a predominant feature. This ownership is integral to discussions on housing asset-based welfare (HABW). As indicated by the 2011 Census, rural areas exhibit a substantial 95% home ownership, contrasting with 69% in urban locales (State of Housing in India, a statistical compendium, 2013).<sup>10</sup> This demographic context underscores the centrality of housing as an asset. When considering the possibility of home ownership, particularly as one ages, reverse mortgages become an attractive financial option. By

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<sup>10</sup> [https://mohua.gov.in/upload/uploadfiles/files/Housing\\_in\\_India\\_Compndium\\_English\\_Version2.pdf](https://mohua.gov.in/upload/uploadfiles/files/Housing_in_India_Compndium_English_Version2.pdf)

accessing their home equity, elderly homeowners can overcome financial obstacles. The way that ownership, demographics, and financial tools interact dynamically is one way that this evolving conversation about HABW is influenced.

Interest in RML products has been rising steadily over the past few years. A growing body of empirical and theoretical research (Case and Schnare,1994; Chavez Andersson and Sandstrom, 2013; Marcinkiewicz and Chybalski,2022) has been conducted in an effort to explain why people are drawn to RML products and why they tend to use them in various contexts. These studies have examined the socio-demographic factors that influence demand as well as certain traits of the borrowers. Furthermore, by expanding the scope of the inquiry to include the market and the supply side, the causes of the discrepancy between actual and potential demand were also investigated. Numerous variables pertaining to a variety of socio-demographic and financial aspects have been proposed and studied by academics. Despite this, there has not yet been a clear conceptual model in the literature that integrates this range of explanatory factors. This is probably due to the practical challenges associated with gathering data on these variables within a larger explanatory model. The intricacy of RML products and their numerous social externalities make it challenging to define a theoretical framework of reference. These factors have resulted in studies with widely disparate methods and goals over a period of time.

In the United States, Reverse Mortgages have been in existence since the 1960s (Ashok and Vij,2020). By the 1970s it had spread to parts of Europe and in the 1980s it was seen in Australia, New Zealand, and Canada as well (Ward,2004; Law Reform Commission of Saskatchewan, 2006).

Table 2.1 gives a detailed comparison between normal mortgages and reverse mortgages.

**Table 2.1 Comparison of Normal Mortgage and Reverse Mortgage**

	<b>Normal Mortgage</b>	<b>Reverse Mortgage</b>
Definition	A homeowner who wants to buy a new home or refinance an existing one will take out a regular mortgage. The principal and interest are paid down by the borrower through monthly payments made to the lender.	A reverse mortgage under which a senior citizen who is the owner of a house can avail of a monthly stream of income against the mortgage of his/her house, while remaining the owner and occupying the house throughout his/her lifetime, without repayment or servicing of the loan
Repayment and Tenure	In a conventional mortgage, the borrower is in charge of paying the lender a monthly mortgage payment. By paying both principal and interest, these instalments gradually lower the loan sum over time.	The borrower usually does not have to make any monthly payments when using a reverse mortgage. Rather, the homeowner receives regular payments from the lender, turning house equity into revenue. Usually, the loan is returned when the borrower moves out, sells their house, or passes away.
Eligibility	People of all ages who satisfy the lender's qualifying conditions, such as income and creditworthiness standards, can apply for a normal mortgage.	Senior individuals in India, usually those 60 years of age or older, are often eligible for reverse mortgages.

Ownership	Under a normal mortgage, the borrower must occupy the property as their primary residence while maintaining complete ownership of the asset.	Under a reverse mortgage, the borrower keeps ownership of the house but is required to live there full-time for the duration of the loan
Type	Reduction in debt and rising of equity value (collateral)	Rising of debt and falling of equity value (collateral)
Form of payment	Monthly payments	The credit line, lump sum payment, periodic payments, or combination
Interest Rate	Average ranges from 7-9%	Average ranges from 8-11%

Catering to the needs of senior citizens, the Government of India introduced a Reverse Mortgage Loan in its budget in 2007. For many older Indian households, their largest single asset is their primary place of residence (Daptardar and Dasgupta, 2014). Paul and Chakrapani (2007) investigated the applicability of reverse mortgage loans within the Indian context, including a comparative analysis of the offerings by various banks and financial institutions. Desai (2010) conducted a survey among senior citizens in Vadodara, Gujarat, to gauge the potential demand for reverse mortgage loans. Pahuja and Sanjeev (2016) investigated the factors influencing the decision to purchase a reverse mortgage loan in India. Rajagopalan (2002) explored the potential for reverse mortgage products in the Indian market. Kumar *et al* (2008) proposed strategies to enhance the marketability of reverse mortgage loans in India. Munnell *et al* (2007) observed that over half of the respondents stated they did not expect to use their property equity in retirement citing insurance against health expenses and savings for living expenses as their explanation.

The study was conducted by collecting data from 2,673 respondents/homeowners who were between the ages of 50 and 65. Table 2.2 depicts the interest rate charged by various banks for reverse mortgage plans in the Indian lending space.

**Table 2.2 Interest Rates<sup>11</sup>**

<b>Name of the Bank</b>	<b>Scheme Name</b>	<b>Tenure (Years)</b>	<b>Maximum Loan Amount (₹)</b>	<b>Interest rate per annum</b>
Bank of Baroda	Baroda Ashray	15	1 Crore	11.75%
Canara Bank-	Canara Jeevan	15	50 Lakhs	10.20%
Industrial Development Bank of India	Reverse Mortgage Loan	20	2 Crore	10.85%
Indian bank	Reverse Mortgage Loan	15	75 Lakhs	9.4%
Punjab National Bank	PNB Baghban	15	1 Crore	12%
Union Bank of India	Union Reverse Mortgage	20	1 Lakh to 1 Crore	12.15
State Bank of India	SBI Reverse Mortgage Loan	15-20	1.5 Crores to 2 Crores	11.55
Indian Overseas Bank	Reverse Mortgage Loan	15	5 Lakhs to no ceiling	MCLR+1.00
Punjab & Sind Bank	PSB Sukhmoney	15	1 Crore	10.25-12.60
United Commercial Bank	UCO Swabhimani	15	50 Lakhs	MCLR+3.05

MCLR<sup>12</sup>- Marginal Cost of Lending Rate as of Sep 2023

<sup>11</sup> Compiled by author from data of various bank websites.

<sup>12</sup> Marginal Cost of Funds Based Lending Rate, a benchmark interest rate used by banks in India for setting lending rates

Many researchers (Bardhan and Barua,2003; Rajagopalan, 2006; Celent,2008; Tripathi and Iyer,2009) documented that there exists a great potential for reverse mortgages in India. They have presented a compelling argument for reverse mortgages to become more widely accepted as a major source of retirement funding for India's burgeoning senior citizen population. Tripathi and Iyer (2009) analyzed the opportunities, threats, issues, and challenges associated with reverse mortgages in India. Despite this potential, the market for reverse mortgages in India remains underdeveloped. There are concerns regarding the viability of reverse mortgages in India given the lack of proper regulations and low awareness of the product among the borrowers, as risk of fraud and mis-selling by financial institutions (Ashok and Vij ,2020).

## **2.2 THEORETICAL FOUNDATIONS**

This section reviews major theoretical perspectives in designing the questionnaire that brings out the awareness, perception, and attitude of senior citizens on RMLs. Designing questions and response scales, which have long been problematic in both quantitative and qualitative social research, is exemplified by the early research of Mathews (1929) and accordingly, we have done a through literature review and elicited the relevant theories, and based on the same the questionnaire was developed.

### **2.2.1 Elaboration Likelihood Model (ELM)**

ELM was proposed by Petty and Cacioppo (1986) suggests two routes to persuasion: central (high elaboration) and peripheral (low elaboration). The level of consumer involvement determines which route is taken when processing information about a product. While minimal engagement produces peripheral route processing, high involvement produces central route processing. According to ELM, emotions may

influence people's decision to share by acting as quick, accurate cues that cause judgments or as justifications for beliefs when elaboration is high (Petty and Brinol, 2014). ELM is used to examine how senior citizens process information about reverse mortgages. High elaboration (central route processing) might involve careful consideration of the benefits and risks, while low elaboration (peripheral route processing) might involve reliance on peripheral cues like advertisements or recommendations.

### **2.2.2 Theory of Planned Behavior (TPB)**

This theory was developed by Ajzen (1991), who posits that behavioral intentions and actions are influenced by three key factors: attitudes toward the behavior, subjective norms (social pressure), and perceived behavioral control (the perceived ease of performing the behavior). These factors collectively influence a person's attitude and intention to purchase a product. TPB can help to analyze the factors influencing senior citizens' intentions and decisions regarding reverse mortgages. Explore how their attitudes toward reverse mortgages, subjective norms (e.g., family opinions), and perceived behavioral control (e.g., financial literacy) shape their perceptions and attitudes

### **2.2.3 Cognitive Dissonance Theory**

According to Cognitive Dissonance Theory, when consumers experience a conflict between their attitudes and behavior (e.g., buying a product they have mixed feelings about), they seek to reduce this discomfort. Marketers can use strategies to minimize cognitive dissonance and reinforce positive attitudes post-purchase (Leon Festinger, 1951). Using this theory, whether cognitive dissonance may be at work if

seniors have conflicting feelings about reverse mortgages following informational or decisional input can be examined, and then suggest how marketers might resolve or lessen this contradiction to favorably affect attitudes.

#### **2.2.4 Information-Processing Models**

Information-processing models suggest that consumers evaluate products based on various attributes and form attitudes accordingly. Marketers can influence these evaluations by highlighting specific product attributes and benefits (Simon, 1979). In this study, we have used information-processing models to analyze how senior citizens evaluate reverse mortgages based on attributes like interest rates, repayment terms, and potential benefits. By knowing these attributes, one can evaluate the attributes that influence the decisions of senior citizens.

#### **2.2.5 Hedonic Consumption Theory**

Hedonic consumption designates those facets of consumer behavior that relate to the multi-sensory, fantasy, and emotional aspects of one's experience with products. Because the terms multisensory, fantasy, and emotive evoke a variety of meanings, researchers should define them formally at the outset to avoid confusion in their subsequent interpretation (Hirschman, 1982). This theory posits that consumers purchase products for both utilitarian (functional) and hedonic (emotional) reasons. Understanding the emotional aspects of consumer behavior, such as pleasure and enjoyment, can help shape product perception and attitudes. People buy products not only for what they can do but also for what they mean (Levy, 1999). This line of thought went forward during the 1960s to incorporate the notion of congruence between the

lifestyle a consumer chooses and the symbolic meaning of the products that consumers buy. Using this theory in our research study whether seniors' attitudes toward reverse mortgages are influenced by the hedonic aspects, such as the emotional satisfaction of ensuring financial stability in retirement, and accordingly, we are trying to capture the utilitarian aspects of reverse mortgage products. can be captured.

#### **2.2.6. Life cycle hypothesis:**

The life-cycle hypothesis suggests that elderly people should reduce their wealth when they become older. Home equity is not as liquid as other types of wealth. Senior homeowners may not be able or willing to sell their homes or avail mortgages to spend their home equity. Reverse mortgages are among the financial tools that could make it easier for seniors to access home equity. The fundamental theory of wealth accumulation and decumulation over a household's life cycle is due to Modigliani and Brumberg(1954) who argued that credit-unconstrained households per period consumption will be proportional to their lifetime wealth. The implication is that young households with relatively low earnings will dissave; then earnings will rise and households save resulting in positive wealth. Finally, retirement occurs and seniors dissave, spending down their wealth. There have been many challenges to this theory including the observations that consumption falls substantially upon retirement and seniors' dissaving appears to be minimal (Banks *et al.*, 1998). We apply the learnings from this theory to our research work.

#### **2.2.7 Bequest Motive Theory:**

According to the Bequest Motive Theory, people are driven by a desire to leave a financial legacy for future generations in addition to their current consumption needs. This economic principle affects asset allocation, savings, and investment decisions as it encourages people to accumulate wealth to guarantee a sizeable bequest. This motivation influences estate planning choices like buying life insurance, writing a will, creating trusts, and the like. There is a trade-off between the desire to leave an inheritance and current consumption as well as cultural and social factors. Economists and financial planners should grasp the Bequest Motive Theory as it clarifies the complex incentives that influence people's financial decisions over the course of their lives. A reason for seniors holding housing in their portfolio is that it may be part of a planned bequest to heirs. This may occur from altruism or a desire by seniors to influence their children's behaviour (Becker *et al.*,2016). From the perspective of children, they may expect to inherit their parent's homes, possibly residing in the home into adulthood. We have adopted the learnings from the above theory while constructing the questionnaire.

### **2.3 RESEARCH GAP**

The above literature review and theoretical underpinning show that though there are many studies concerning the various aspects of reverse mortgage loans across the globe, a vast majority of the work was being carried out in developed economies and only a few studies were conducted in emerging economies like India. From the review of literature, it is observed that not much work is available with reference to RMLs assessing the awareness, perception, and attitude of senior citizens. On analyzing these factors behind the awareness, perception, and attitude of the senior citizens, required policy and regulatory changes could be made to make this product lucrative.



## **CHAPTER III**

### **RESEARCH DESIGN**

3.1 INTRODUCTION

3.2 SAMPLE SELECTION AND COLLECTION OF DATA

3.3 HYPOTHESIS

3.4 QUESTIONNAIRE DEVELOPMENT

3.5 COLLECTION OF DATA

3.6 STATISTICAL TOOLS

## **CHAPTER III**

### **RESEARCH DESIGN**

#### **3.1 INTRODUCTION**

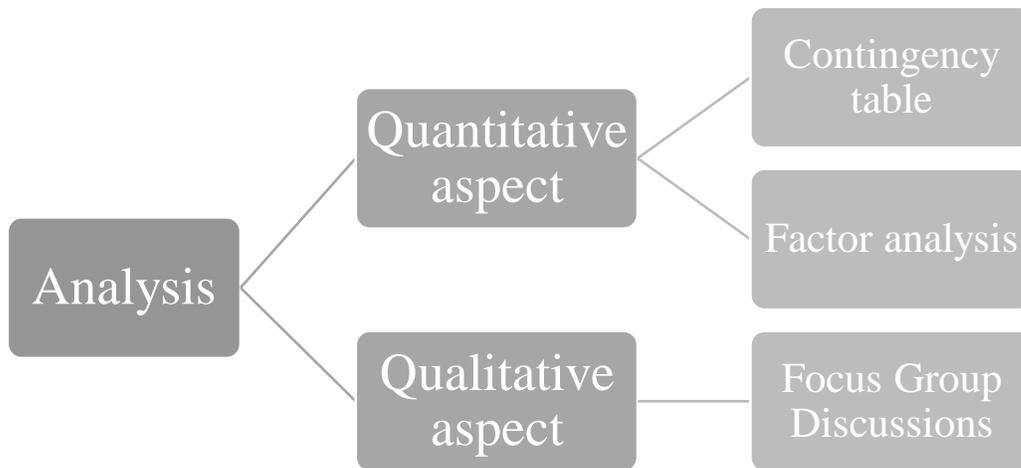
Indian demographics are currently young, but the country's large population base is contributing to a rapidly increasing senior citizen population. Constantly rising life expectancy combined with high inflation, absence of social security, collapsing joint family system over time, the sharp rising of health care costs, etc. make retirement extremely difficult for most seniors. Because of this situation, there is a growing need for activities that might boost monthly income and provide the rapidly aging population financial security in retirement. In India, elderly individuals have significant housing wealth, whose market value appreciated to a greater extent in the last few decades. The vast majority of middle-class retirees have nice homes but low incomes. The Reverse Mortgage Loan attempts to sort out this problem. The viability of the product Reverse Mortgage Loan has been studied across the globe by various researchers (Tsai *et al.*,2023; Ana and Martina,2020; Kutty,1998). The researchers (Pahuja and Sanjeev,2016; Mohammed and Sulaiman,2018; Marcinkiewicz and Chybalski,2022; Ashok and Vij,2023) employed both quantitative and qualitative methods. The Reverse Mortgage Loan structure in India is quite different from that of other countries. Due to the social complexity, senior citizens passing down a legacy to the next generation is highly valued, and this can influence the demand and their attitudes toward reverse mortgage loans

#### **3.2 SAMPLE SELECTION AND COLLECTION OF DATA**

The purpose of the research is to study senior citizens' perceptions and attitudes towards Reverse Mortgage Loans in India. Accordingly, we have collected the primary data from the senior citizens who are either currently availed of RML or proposed to avail of such facility by administering a

well-tested survey questionnaire. The earlier studies of Koo(2007), Zbrojewsk(2013), Chavez Andersson and Sandstrom(2013), and Kumar *et al.*,(2008) helped us to devise our survey questionnaire. We have followed a non-random purposive sampling method of sampling given the nature of our research question. Accordingly, the questionnaire was sent to only respondents who are 50 and above age group. The researcher intentionally selected this segment of the population due to its direct relevance to the study's objectives. Members of the organizations across the country such as, All India Senior Citizens' Confederation (AISCCON), Indian Longevity Centre, and Kerala Senior Citizen Service Council, self-organized senior citizen groups, etc. have participated in the survey and provided the required data.

We have also conducted a Focus Group Discussion (FGD) by inviting stakeholders such as leading public and private bankers who are in the business of RML, representatives from self-organized senior citizen groups, and existing and prospective borrowers of RML. They have given various inputs relevant to our research work which was extremely useful.



**Fig 3.1 Conceptual Framework**

### **3.3 HYPOTHESIS**

Keep in mind the research objectives and existing literature review, the researcher has formulated the following null hypothesis for empirical examination.

**H<sub>1</sub>:** There is no association between age and awareness of Reverse Mortgage Loans.

**H<sub>2</sub>:** There is no association between gender and awareness of Reverse Mortgage Loans.

**H<sub>3</sub>:** There is no association between education and awareness of Reverse Mortgage Loans.

**H<sub>4</sub>:** There is no association between annual income and awareness of Reverse Mortgage Loans.

**H<sub>5</sub>:** There is no association between insurance and awareness of Reverse Mortgage Loans.

### **3.4 QUESTIONNAIRE DEVELOPMENT**

The process of developing the questionnaire was an important and time-consuming task. A draft questionnaire was prepared keeping in mind the existing literature and the Indian context, with the input received from the various stakeholders of FGD. Several draft questionnaires were prepared and distributed to senior academics in the field of social science for feedback and comments. This entire effort made sure that the questionnaire was clear and had all the questions posed accurately. We did a pilot study by administering twenty questionnaires to various respondents and sought their feedback for further improvising the same.

The first ten questions in the questionnaire captured the socio-economic status of the participants. We included socioeconomic status questions to analyze the socioeconomic status of the respondents. This information helps us to identify patterns, disparities, and correlations, allowing for a more comprehensive analysis of how socioeconomic status affects behaviors, health outcomes, educational attainment, and other variables of interest.

The second part of the questionnaire is designed in such a manner that brings out the awareness, perception, and attitude of senior citizens. The sub-questions were devised after consultations with experts from the psychology domain. The researcher employed both open-ended and closed-ended questions, in which participants were asked questions but were not given a choice of answers. The questionnaire devolves into financing life after retirement, interest rates of RMLs, bequest motives, and many other factors.

### 3.5 COLLECTION OF DATA

The questionnaire was administered online to 345 respondents as described earlier and in the first round, we got 54 filled questionnaires. After waiting for about seven days, we sent a reminder to the respondents from whom we had not gotten any response. and the remainder yielded a positive response of 67.

**Table 3.1 Details of Arrival of Final Respondents**

Particulars	Sample
The initial number of online survey questionnaires circulated	345
First round of response received	54
Second round of response received	67
Unfilled, incomplete questionnaire cleansed	9
Final number usable of respondents	112

Thus, our response rate <sup>13</sup>was 35.02%. the survey response rate in online panels is often relatively low (Tourangeau *et al.*, 2004). A more recent synthesis based on 207 online surveys reported in

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<sup>13</sup> Response rate here is the ratio of the number of usable questionnaires to those sent out.

four counseling psychology journals<sup>14</sup> uncovered an average response rate of 34.2% (Poynton *et al.*, 2019). Despite the inherent challenge of low response rates in online surveys, our study achieved a 35.02% response rate. This aligns with the trend observed, emphasizing the validity of our obtained data.

### **3.6 STATISTICAL TOOLS:**

The collected data were analysed through various statistical tools like descriptive statistics, chi-square, factor analysis, and the like. To test the sampling adequacy for running factor analysis, we have used Bartlett's test of sphericity and the Kaiser Meyer-Olkin (KMO) test (Shahi *et al.*, 2020). Combining qualitative insights from the FGD, our study ensures a holistic exploration, harnessing group discussions for nuanced insights alongside statistical analyses for robust findings.

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<sup>14</sup> *Counselor Education and Supervision* (36 issues, Vol. 46, Issue 3 to Vol. 54, Issue 4), *Journal of Counseling & Development* (36 issues, Vol. 85, Issue 1 to Vol. 93, Issue 4), *Journal of School Counseling* (nine issues, Vol. 5 to Vol. 13), and *Professional School Counseling* (36 issues, Vol. 10, Issue 3 to Vol. 19, Issue 1)

## **CHAPTER IV**

### **ANALYSIS AND DISCUSSION**

#### 4.1 INTRODUCTION

#### 4.2 DEMOGRAPHIC PROFILE

#### 4.3 DESCRIPTIVE STATISTICS

#### 4.4 AWARENESS

##### *4.4.1 Age*

##### *4.4.2 Gender*

##### *4.4.3 Education*

##### *4.4.4 Annual income*

##### *4.4.5 Health insurance*

#### 4.5 PERCEPTIONS AND ATTITUDE

#### 4.6 OUTCOME OF FOCUS GROUP DISCUSSION (FGD)

##### *4.6.1 Regulatory Barriers*

##### *4.6.2 Interest rates*

##### *4.6.3 Awareness*

##### *4.6.4 Perception*

##### *4.6.5 Alternatives*

## **CHAPTER IV**

### **ANALYSIS AND DISCUSSION**

#### **4.1 INTRODUCTION**

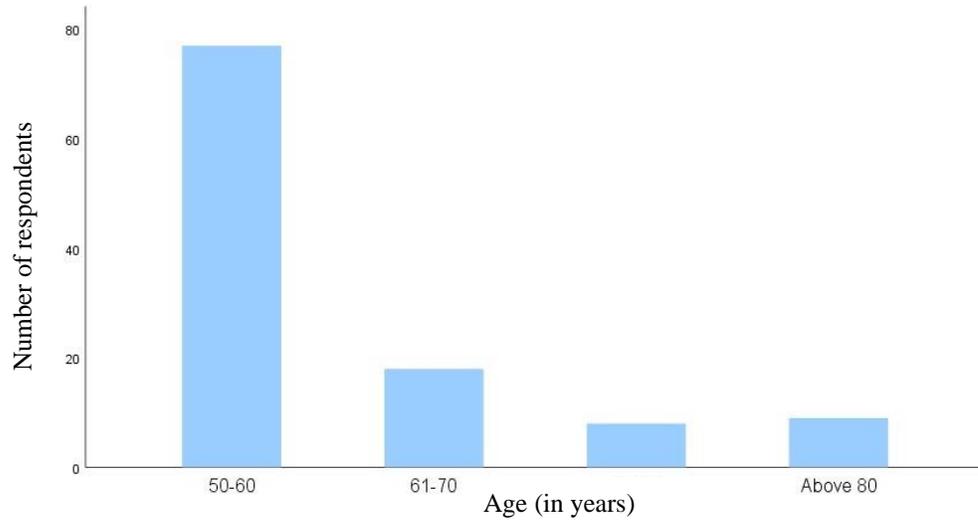
This chapter documents the research findings from our analysis. As mentioned in the objective the analyses bring out the awareness, perception, and attitude of senior citizens on RMLs. The study primarily depends on a survey approach with a focus on investigating the connection between demographic factors and awareness, perception, and attitude regarding RMLs in India. The First phase of analysis depicts the demographic profiles of the respondents followed by appropriate variables in the cross-tabulation and visualization followed by factor analysis. We have used exploratory factor analysis to identify the factors that affect the perception and attitude of senior citizens towards RML.

#### **4.2 DEMOGRAPHIC PROFILE**

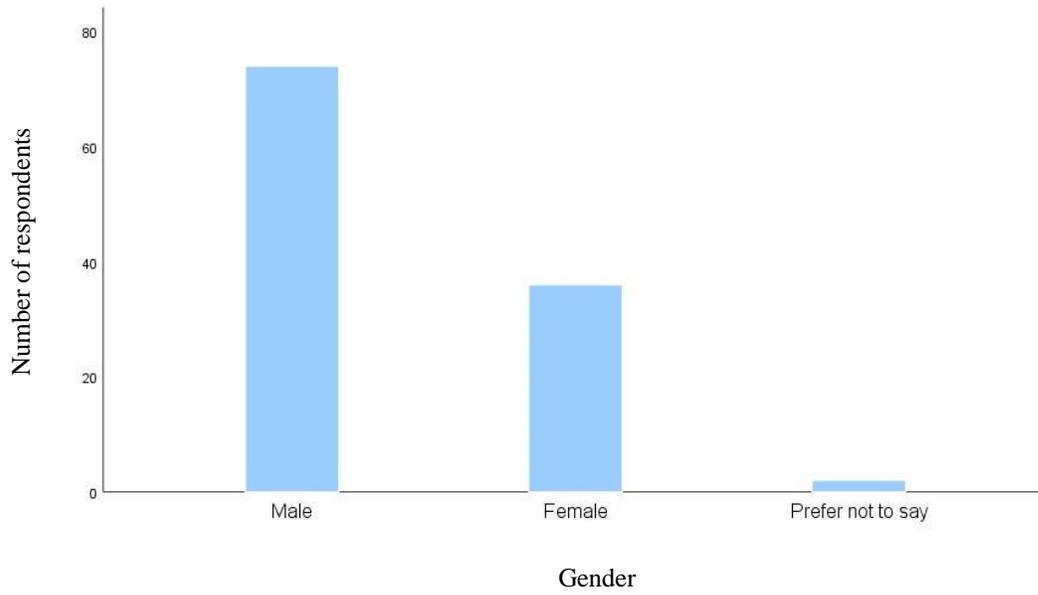
It is evident from Table 4.1 that most of the respondents are within the 50-60 age range. 36.3% of the respondents are between the age bracket of 50 and 60. The gender distribution leans towards males (34.9%), and 39.2% are married. Education levels are diverse, with 22.6% holding master's degrees. The most common occupation is full-time employment (salaried) (23.1%), and the highest income group is ₹8,00,000 and above (17.5%). Also, the number of respondents who have health insurance is 37.5%.

**Table 4.1 Socio-Economic Status of the Respondents**

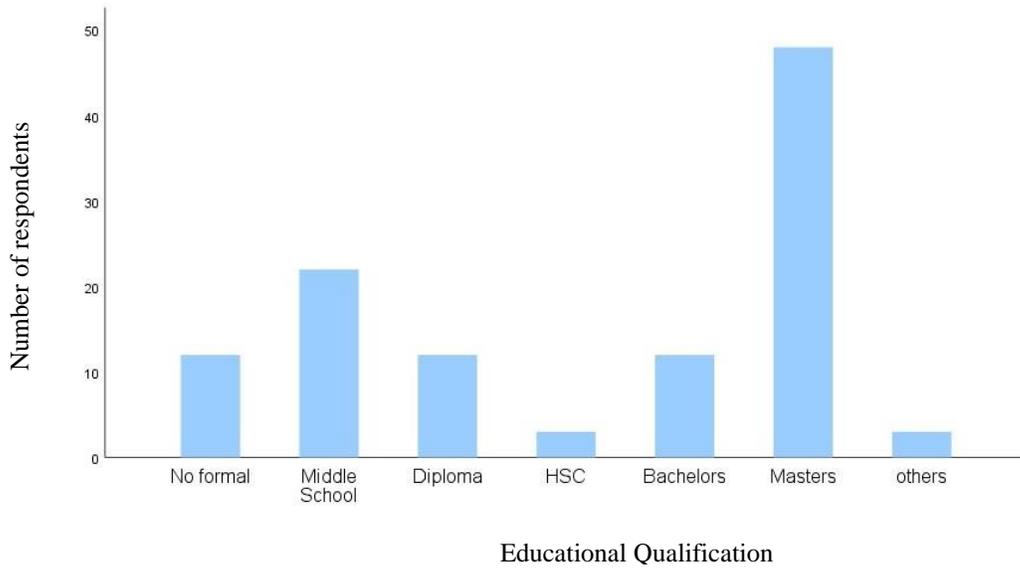
<b>AGE (In Years)</b>			
	Frequency	Percent	Cumulative Percent
50-60	77	36.3	83.5
61-70	18	08.5	92.0
71-80	08	03.8	95.8
Above 80	09	04.2	100
<b>GENDER</b>			
Female	36	17.0	64.2
Male	74	34.9	99.1
Prefer not to say	02	0.9	100
<b>MARITAL STATUS</b>			
Divorce	02	0.9	48.1
Married	83	39.2	87.3
Prefer not to say	04	01.9	89.2
Single	10	04.7	93.9
Widow/Widower	13	06.1	100
<b>EDUCATIONAL QUALIFICATION</b>			
Bachelor degree	12	05.7	52.8
Diploma or vocational training	12	05.7	58.5
HSC	03	01.4	59.9
Master's degree	48	22.6	82.5
Middle school (6th - 8th grade)	22	10.4	92.9
No formal education	12	05.7	98.6
Others	03	01.4	100
<b>OCCUPATION</b>			
Employed (full-time-salaried)	49	23.1	70.3
Employed (part-time)	05	02.4	72.6
Homemaker	06	02.8	75.5
Others	02	0.9	76.4
Retired	23	10.8	87.3
Self-employed	22	10.4	97.6
Unemployed	05	02.4	100
<b>ANNUAL INCOME (In ₹)</b>			
₹2,00,000 - ₹3,99,999	26	12.3	59.4
₹4,00,000 - ₹5,99,999	13	06.1	65.6
₹6,00,000 - ₹7,99,999	04	01.9	67.5
₹8,00,000 and above	37	17.5	84.9
Under ₹2,00,000	32	15.1	100
<b>DO YOU HAVE HEALTH INSURANCE</b>			
Yes	42	19.8	67.0
No	70	33.0	100.0



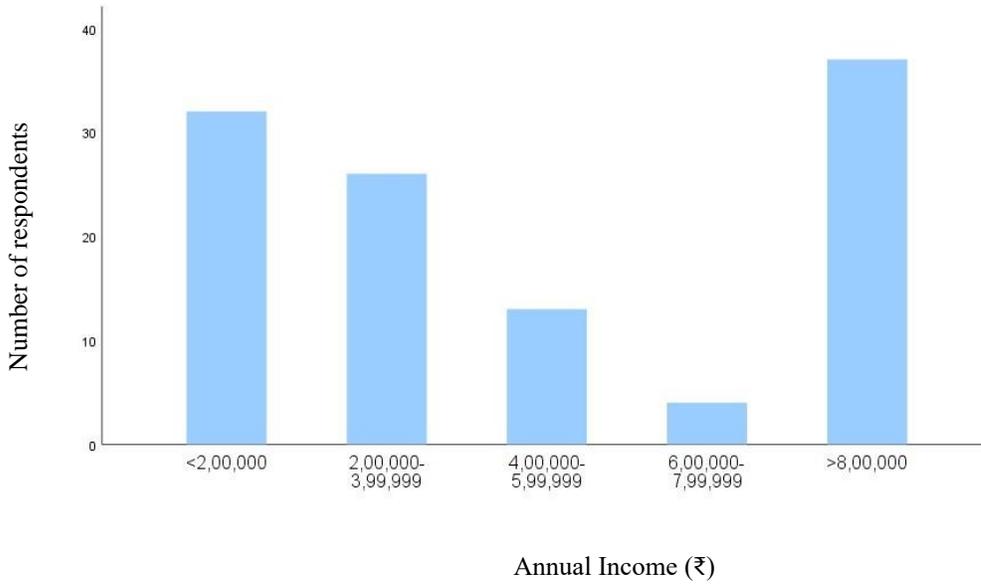
**Fig 4.1 Age-wise classification of the Respondents**



**Fig 4.2 Gender-wise Classification of the Respondents**



**Fig 4.3 Educational status of the Respondents**



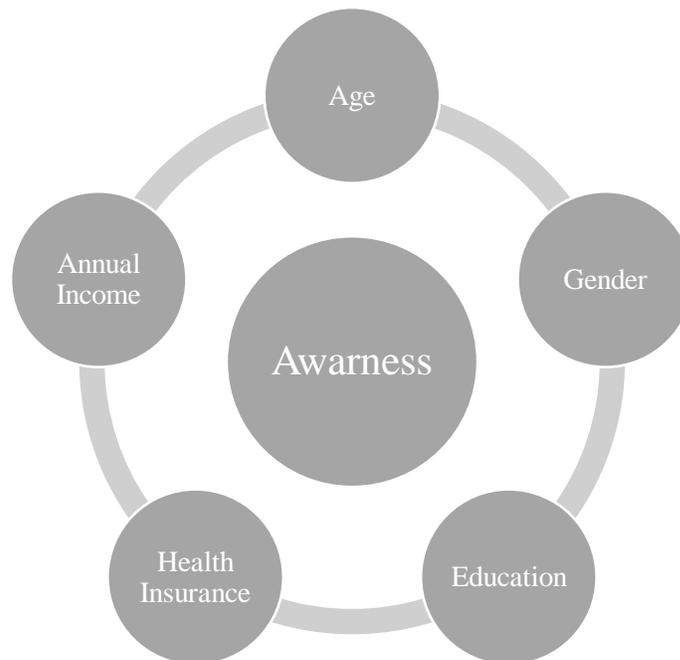
**Fig 4.4 Annual Income of the Respondents**

#### 4.4 AWARENESS

Prior research has proven a favourable relationship between product demand and knowledge or awareness of a product (Davidoff *et al.*, 2015). Out of the 112 respondents across the country, 57% have never heard about Reverse Mortgage loans. This indicates that there exist a vast gap in the marketing of the product in the Indian landscape by the bankers.

**Table 4.2 Awareness**

Are you aware of Reverse Mortgage loans?	
Yes	42.85%
No	57.14%



**Fig 4.5 Awareness**

#### 4.4.1 Age

**H<sub>1</sub>:** There is no association between age and awareness of Reverse Mortgage loans.

A study by Richardson and Kilty (1989) and Hong (2021) investigated the influence of age on human behavior related to retirement planning. To find the relationship between age and awareness of RML we have conducted a Chi-square test. Table 4.3 depicts the results of the test.

**Table 4.3 Relationship between age and reverse mortgage awareness**

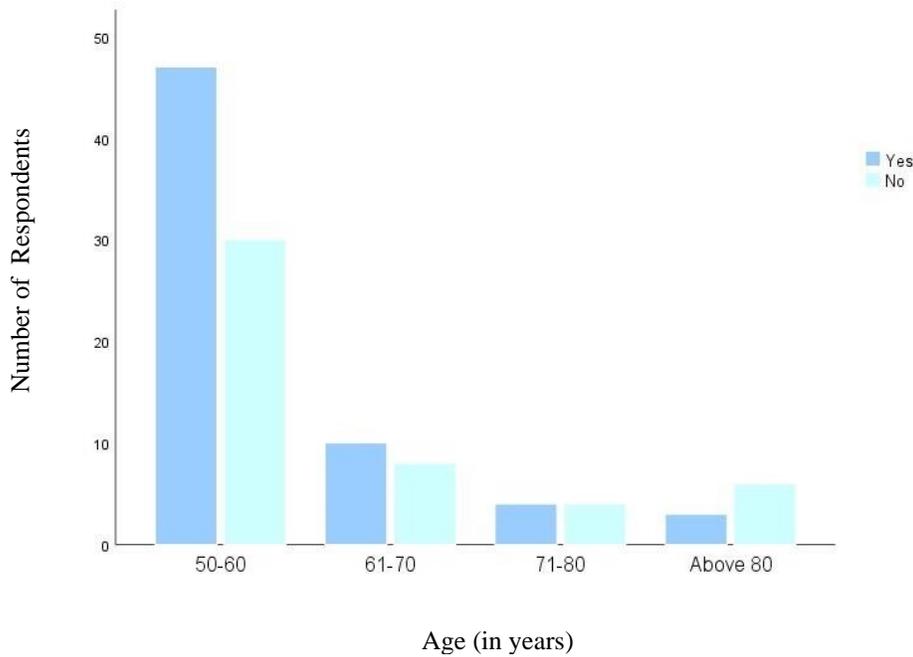
Variable	Pearson Chi-Square	P value
Age	2.746	0.433

**Table 4.4 Age and awareness of RMLs**

		Are you aware of Reverse Mortgage loans?	
		Yes	No
Age	50-60	47	30
	61-70	10	8
	71-80	4	4
	Above 80	3	6

The p-values for tests are greater than 0.05, indicating no strong evidence to reject the null hypothesis(H<sub>1</sub>). This indicates that there is no statistically significant association between age and awareness of Reverse Mortgage loans. While prospective borrowers often fall within a certain age bracket, the lack of a significant association implies that a majority of people are not aware of RMLs. Our results are different from (Ashok and Vij 2023) who found that there exists an

association between age and awareness of RMLs in India. whereas we found that awareness of RMLs is notably low among all individuals.



**Fig 4.6 Awareness vs Age**

#### **4.4.2 Gender**

**H<sub>2</sub>:** There is no association between gender and awareness of Reverse Mortgage Loans.

According to Smith and Searle (2008), gender has an impact on reverse mortgage awareness, with men reporting higher awareness levels than women. To find the relationship between the gender and awareness about RML, we have conducted a Chi-square test to test our null hypothesis that There is no association between gender and awareness of Reverse Mortgage Loans. Table 4.5 depicts the results of the test.

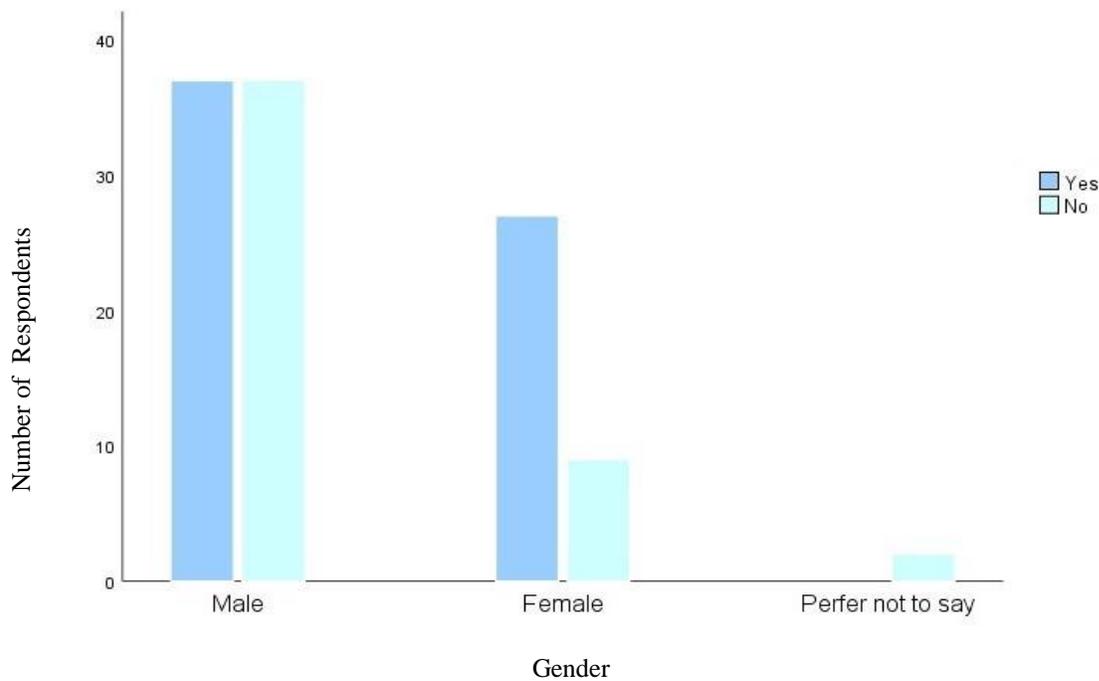
**Table 4.5 Relationship between gender and reverse mortgage awareness**

Variable	Pearson Chi-Square	P value
Gender	8.896	0.0012

The p-value for the test is not greater than 0.05, indicating that there is enough evidence to reject the hypothesis(H<sub>2</sub>). Therefore, it suggests that there is a significant association between gender and awareness of Reverse Mortgage loans. Male respondents appear to have higher awareness and knowledge of the product compared to females. This finding is an indication of gender gap with reference to financial products especially RML among the Indian women in the society indicative of traditional gender roles within Indian society.

**Table 4.6 Gender and awareness of RMLs**

		Are you aware of Reverse Mortgage loans?	
		Yes	No
Gender	Female	27	9
	Male	37	37
	Prefer not to say	0	2



**Fig 4.7 Awareness vs Gender**

#### 4.4.3 Education levels

**H<sub>3</sub>:** There is no association between education level and awareness of Reverse Mortgage Loans.

Joo and Pauwels (2002) documented that higher education enhances individuals ability to navigate financial information, which in turn, impacts their awareness levels. In the earlier studies in India (Ashok and Vij,2023) observed that individuals with higher education demonstrate better comprehension of Reverse Mortgages, possibly due to their ability to grasp the concept's intricacies, while those with lower education exhibit lower awareness of Reverse Mortgage Loans but, our findings contradict with their view.

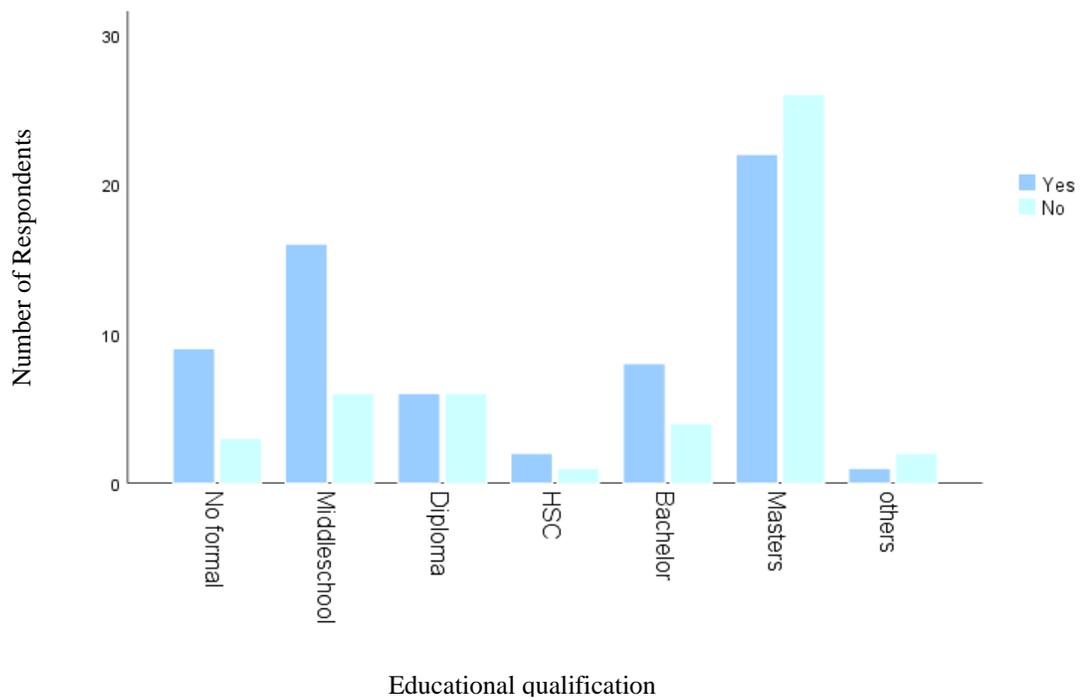
**Table 4.7 Relationship between education and reverse mortgage awareness**

<b>Variable</b>	<b>Pearson Chi-Square</b>	<b>P value</b>
<b>Education</b>	7.751	0.257

The p-values for the test are greater than 0.05, indicating no strong evidence to reject the null hypothesis. Therefore, we found that there is no significant association between education level and awareness of Reverse Mortgage Loans.

**Table 4.8 Education and awareness of RMLs**

		Are you aware of Reverse Mortgage loans?	
		Yes	No
Education	No Formal	8	4
	Diploma	6	6
	HSC	2	1
	Masters	22	26
	Bachelors	16	6
	Middle School	9	3
	Others	1	2



**Fig 4.8 Awareness vs Education**

#### 4.4.4 Annual income

**H<sub>4</sub>:** There is no association between annual income and awareness of Reverse Mortgage Loans.

Joo and Pauwels (2002) observed a greater propensity among individuals with higher incomes to seek professional financial guidance for retirement planning when compared to those in lower-income segments. Additionally, research indicated a lack of awareness among lower-income individuals regarding Reverse Mortgages and the associated benefits (Davidoff *et al.*, 2015). To find the relationship between two variables the Chi-square test was done. Table 4.9 depicts the results of the test.

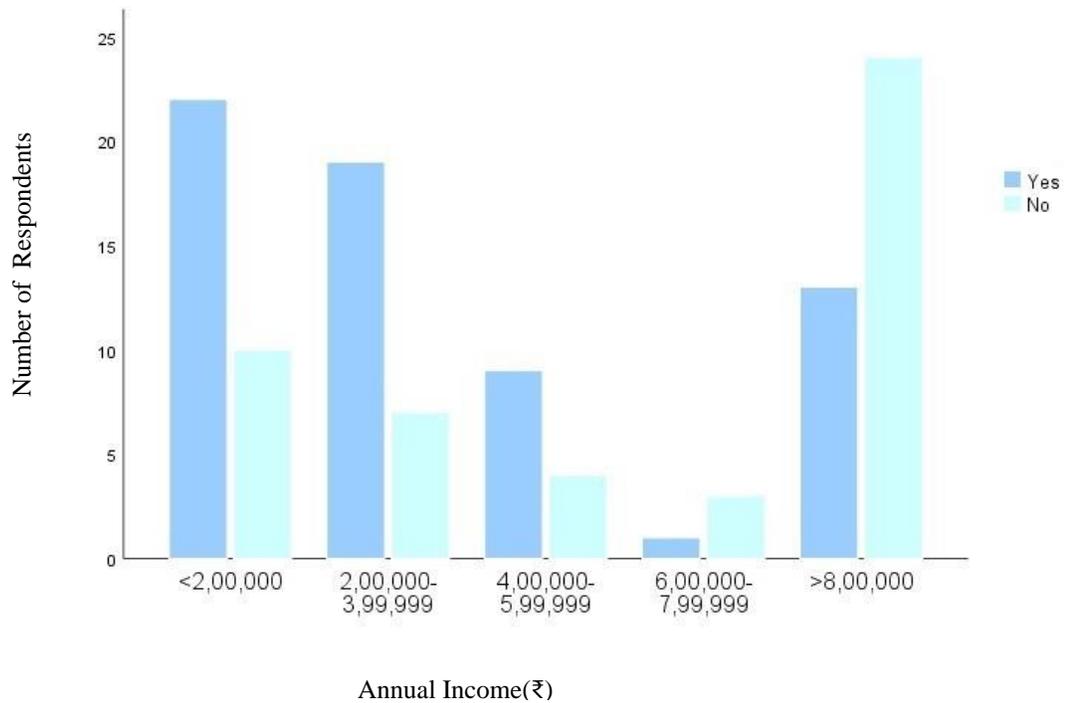
**Table 4.9 Relationship between annual income and reverse mortgage awareness**

Variable	Pearson Chi-Square	P value
Annual Income	14.237	0.007

The p-value for the test is no greater than 0.05, indicating enough evidence to reject the hypothesis(H<sub>4</sub>). Therefore, it suggests that there is a significant association between annual income and awareness of Reverse Mortgage Loans.

**Table 4.10 Annual income and awareness of RMLs**

		Are you aware of Reverse Mortgage loans?	
		Yes	No
Annual Income	Under ₹2,00,000	22	10
	₹2,00,000-₹3,99,999	19	7
	₹4,00,000-₹5,99,999	9	4
	₹6,00,000-₹7,99,999	1	3
	₹8,00,000 and above	13	24



**Fig 4.9 Awareness vs Annual Income**

#### 4.3.5 Health Insurance

**H<sub>5</sub>:** There is no association between health insurance and awareness of Reverse Mortgage Loans.

This hypothesis was framed with an intention to capture whether there exist any association between health insurance and awareness of RMLs as health insurance is an important element in dealing with illness.

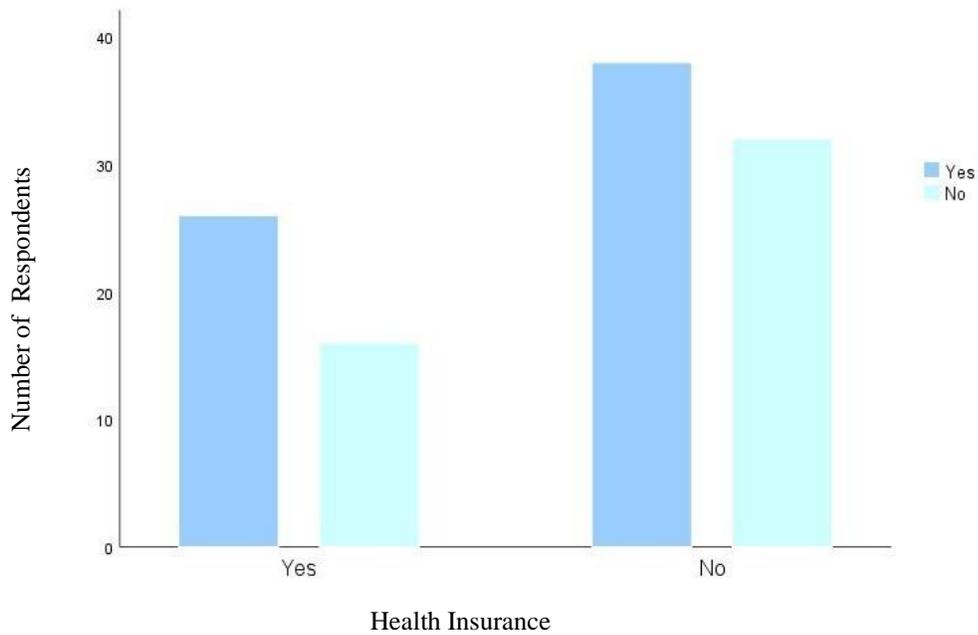
**Table 4.11 Relationship between Health insurance and reverse mortgage awareness**

Variable	Pearson Chi-Square	P value
Health Insurance	0.622	0.430

The p-values for the test are greater than 0.05, indicating no strong evidence to reject the null hypothesis( $H_0$ ). Therefore, it suggests that there is no significant association between health insurance and awareness of Reverse Mortgage loans.

**Table 4.12 Health insurance and awareness of RMLs**

		Are you aware of Reverse Mortgage loans?	
		Yes	No
Do you have Health Insurance?	Yes	26	16
	No	38	32



**Fig 4.10 Awareness vs Health Insurance**

Our study reveals that while age, education level, and health insurance do not exhibit a statistically significant association with awareness of RMLs, there is a notable gender and income disparity. Contrary to prior research by Ashok and Vij (2023), our findings highlight a gender gap, with males exhibiting higher awareness. The significant association with annual income indicates that

economic factors play a crucial role in shaping awareness levels, emphasizing the need for targeted financial education campaigns to bridge existing gaps in understanding RMLs among diverse demographic groups.

#### 4.5 PERCEPTIONS AND ATTITUDES

Factor analysis was used to assess the factors that affect the attitude of the respondents toward reverse Mortgages. To test the sampling adequacy, we have also used the KMO and Bartlett’s Test (Hair *et al.*,1987)

**Table 4.13 KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.665
Bartlett's Test of Sphericity	Approx. Chi-Square	725.387
	df	66
	Sig.	.000

The high value of KMO (between 0.5 and 1.0) suggests that the sample size is ideal to run a factor analysis. In this case, the value was 0.665 which is greater than 0.5 and hence it proves the adequacy of sample to run factor analysis. The highly significant result from Bartlett's Test of Sphericity, with a significance level of 0.000 reinforces the assertion that the data is well-suited for factor analysis. This outcome suggests that the relationships among the variables are substantial and support the validity of the components in the analysis (Malhotra and Dash, 2010). Based on the methodological notes, the study applied factor analysis to uncover the primary dimensions influencing Reverse Mortgage Loan prospective buyers' perceptions and attitudes. The factor analysis was conducted using the principal component method with Varimax rotation, resulting in the identification of four distinct factors. The four factors that were identified accounted for a

cumulative variance of 67.705% of the total variance. The detailed factor loadings and variance values for all these factors are tabulated in Table 4.12 and Table 4.13.

**Table 4.14 Total Variance Explained<sup>15</sup>**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.661	30.510	30.510	3.661	30.510	30.510	3.597	29.972	29.972
2	1.834	15.281	45.790	1.834	15.281	45.790	1.607	13.395	43.367
3	1.431	11.926	57.716	1.431	11.926	57.716	1.481	12.343	55.710
4	1.199	9.989	67.705	1.199	9.989	67.705	1.439	11.995	67.705
5	.890	7.415	75.120						
6	.845	7.039	82.159						
7	.723	6.023	88.182						
8	.566	4.716	92.898						
9	.381	3.174	96.072						
10	.277	2.310	98.383						
11	.178	1.482	99.865						
12	.016	.135	100.000						

<sup>15</sup> Extraction Method: Principal Component Analysis

**Table 4.15 Rotated Component Matrix<sup>16</sup>**

	Component			
	1	2	3	4
What advantage do you see in availing RMLs?	.881			
What are some of the drawbacks/problems associated with RMLs?	.911			
Have you recommended RMLs to your friends/peer?	.975			
To what extent are you influenced by your family members while making decisions on RMLs?		.826		
To what extent do you feel the pressure of inheritance?		.876		
Have you thought about alternative ideas rather than opting for RMLs?			.738	
RMLs appeals to you because				.636
To what extent do you believe that Reverse Mortgage Loans (RMLs) helps you financially at this stage of your life?				.739

<sup>16</sup> Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization<sup>a</sup>  
 a. Rotation converged in 5 iterations.

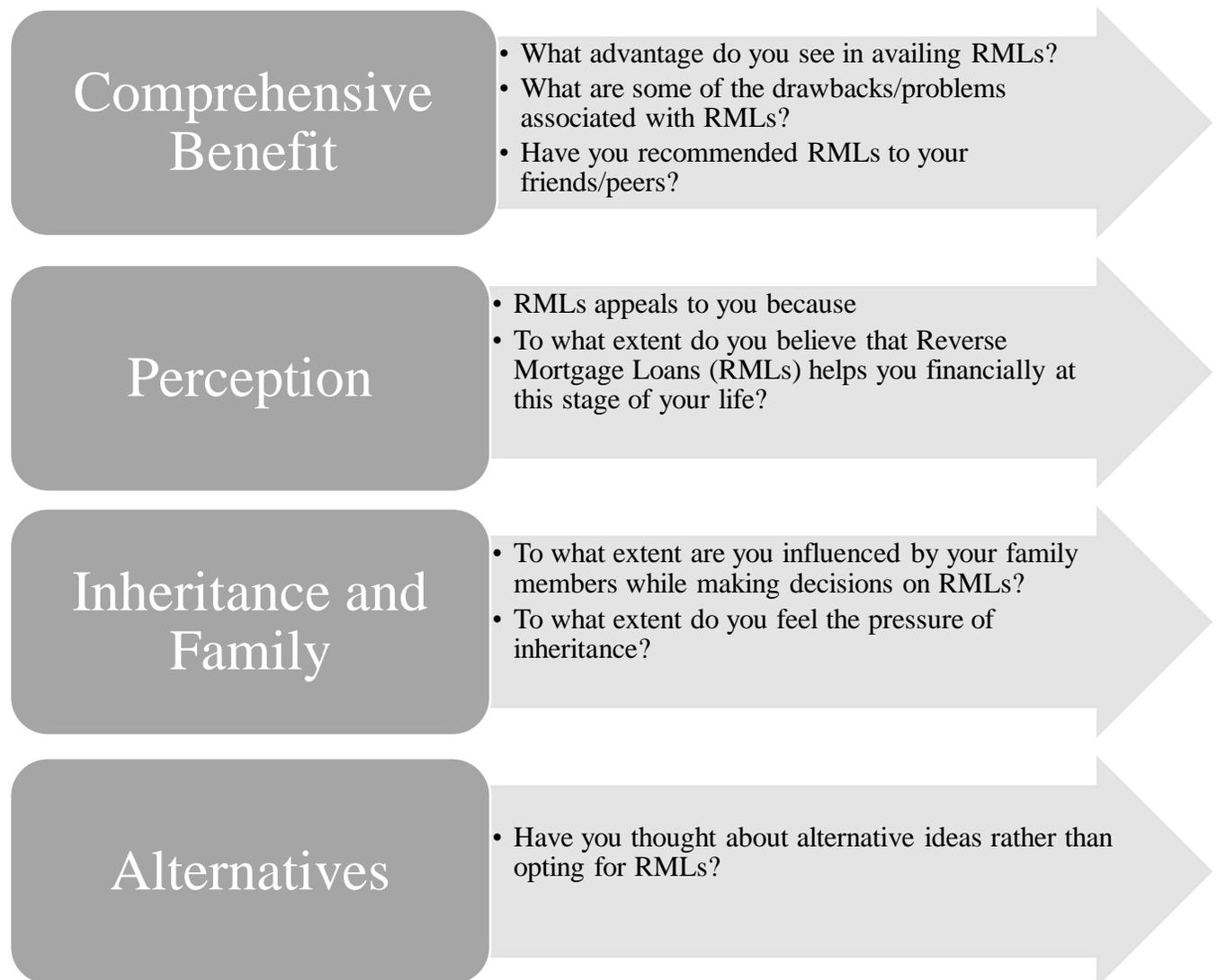
Based on the principal component analysis method, the four factors have been regrouped and renamed as follows:

a) Comprehensive Benefit

b) Inheritance and Family

c) Alternatives

d) Perception



**Fig 4.11 Perceptions and Attitude**

**Table 4.16 Factor Matrix**

Statements	Factor Name	Factor Loading
What advantage do you see in availing of RMLs?	Comprehensive Benefit	0.881
What are some of the drawbacks/problems associated with RMLs?		0.911
Have you recommended RMLs to your friends/peers?		0.975
To what extent are you influenced by your family members while making decisions on RMLs?	Inheritance and Family	0.826
To what extent do you feel the pressure of inheritance?		0.876
Have you thought about alternative ideas rather than opting for RMLs?	Alternatives	0.738
RMLs appeals to you because	Perception	0.636
To what extent do you believe that Reverse Mortgage Loans (RMLs) helps you financially at this stage of your life?		0.739

#### a) Comprehensive Benefit

From the analysis, it is observed that senior citizens enjoy the benefits of RMLs like stable regular income, and retention of home but the cumbersome banking processes, and high interest rates deter them from availing of such loans. Seniors who lack financial literacy face a number of issues. They might not be able to track changes in their wealth or even know how much of it they own overall. A more intricate financial task involves estimating how much of one's current wealth can be spent to ensure that income flows continue to be sufficient throughout one's anticipated lifetime. Seniors may err conservatively if they are unsure about the validity of their calculations, this compounded if they are risk averse (Mata *et al.*, 2011).

#### b) Inheritance and Family

Another factor is that since Indian culture imbibes the concept of legacy and generational linkage through homes, Senior citizens are highly influenced by their family and the bequest motive. Davidoff *et al.*(2015) in their study concluded that respondents with higher bequest motives have lesser inclination to opt for a Reverse Mortgage Loan and vice versa.

#### c) Alternatives

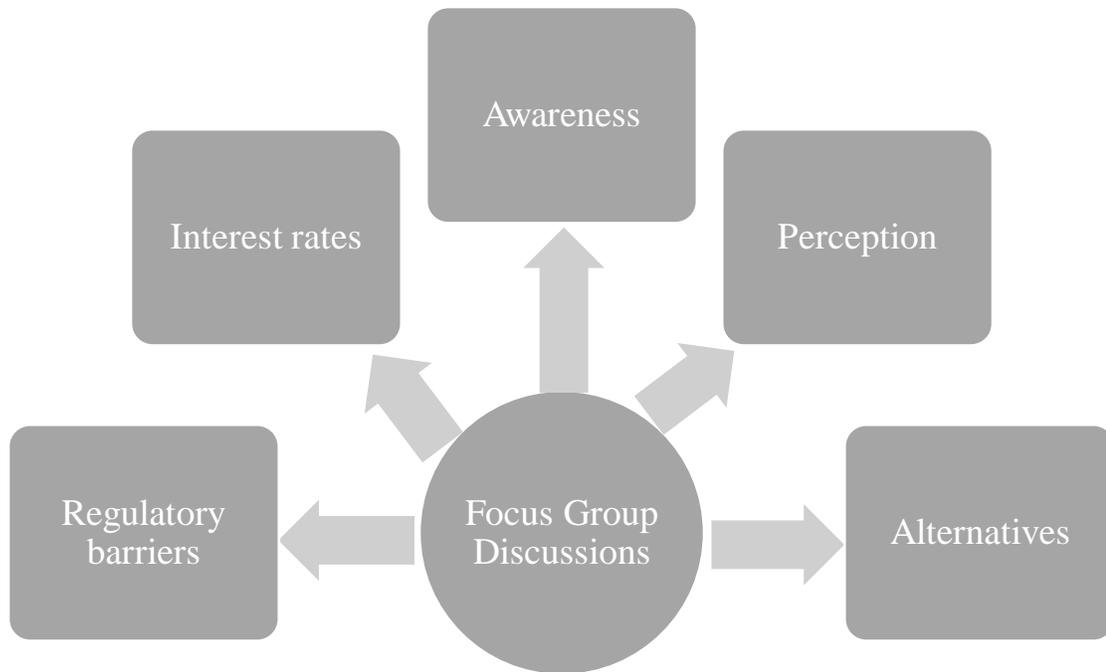
Borrowers found the time consumption to process the loan is more are hesitant to approach the bank in terms of understanding the product and generally search for another alternative that is hassle-free and reliable. Seniors prefer to invest in housing compared with other asset classes. This preference for homeownership could be because they view housing as less risky compared to the alternative of renting.

#### d) Perception

Wang *et al* (2011) identified factors like weakening of family ties, inadequacies in the banking system, and unnecessary delays in loan sanctioning as contributors to the negative perception of Reverse Mortgage Loans in China. The potential buyers believe it is a costly affair to deal with and familiarity with the product is essential. Another version of this claim is that elderly people do not see their house and equity as resources that can be used to augment income. It is possible that seniors are unaware of the procedures for withdrawing equity from their homes or annuitizing wealth. For instance, a survey of Italian seniors indicates that a large majority consider avoiding future debt as a motivation for saving (Fornero *et al.*,2016). From the standpoint of a balanced portfolio, most senior households are overinvested in housing because they own a large portion of their wealth in the form of home equity. Holding total net worth constant, a reallocation would necessitate accessing home equity through borrowing or selling the house and using the proceeds to invest in different asset classes. This behavior is uncommon, which could be attributed to senior preferences or the inability to access home equity due to mortgage market restrictions.

#### **4.6 OUTCOME OF FOCUS GROUP DISCUSSION**

We present the key findings from our research, which includes an analysis of perceptions and attitudes towards Reverse Mortgage Loan. These findings were derived from surveys and Focus Group Discussions (FGD). The Stakeholders of the FGD are the public sector undertaking bankers, seniors who have already availed RML, potential borrowers of RML, representatives from senior citizen forums and the like.



**Fig 4.12 Focus Group Discussions**

#### **4.6.1 Regulatory barriers**

One of the FDG participants representing a large public sector bank quoted the following, *‘New guidance from NHB and RBI made the product inflexible’, ‘Need to revalue the property 3 years once’, ‘A lot of risks involved’, ‘We have not sanctioned a single loan for the past 15-16 months’, ‘Lack of reliable data on property appreciation makes the task of pricing the reverse mortgage product difficult’, and ‘loan origination cost also serves as barrier in promoting the product’.*

From the above statements, it is clear that this financial product (RML) is seen by the officers in the bank as less flexible. Additionally, the requirement to revalue properties every three years poses administrative challenges. Other participants from the banking sector expressed concerns about the ‘associated risks’, suggesting the need for robust risk management tool. Further, the lack of loan sanctions over the past 18 months signals a potential need for product re-evaluation,

marketing strategy adjustments, and improved features to stimulate demand and regain market traction. Indian real estate market lacks proper documentation in turn affects the reliable data on property appreciation. With RML loans, loan origination expenses such as inspections, valuation have tended to be high. This is due to the fact that borrowers need extensive education in order to understand the nature of the product; many prospective borrowers go through the preliminary steps of the loan application process only to withdraw their applications at a later date, after significant transaction costs have been incurred; and many properties require upkeep and repairs before they are suitable for use as securities. This final case requires multiple on-site inspections, which raise the loan origination costs.

#### **4.6.2 Interest rates**

FDG participants representing another leading public sector banks states that '*Interest rates are high in Reverse Mortgage*' compared to regular home loans so borrowers prefer top-up loans than that of RMLs.

For instance, if the value of the property is one, then the bank sanction 90% of that value as a RML. In that only 50% will be given as annuity or monthly payment and remaining will be saved for lumpsum capped at 15 lakhs and considering the NPV (Net Present Value) of the assets mortgaged. Let us look at the workings along with the loan amortisation schedule.

Loan sanctioned = 75 Lakhs (say 15L is reserved for lumpsum)

Rate of interest = 10%

Tenure = 15years (15\*12= 180 months)

It implies that the monthly pay-outs will be **₹ 17,946**. In the context of a 15-year reverse mortgage loan with an annual interest rate of 10.0%, the bank disburses Rs 17,946 per month. Over the loan

tenure, this monthly disbursement accumulates to Rs 32.3 lakhs, significantly falling short of the previously discussed Rs 75 lakhs.

The choice of Rs17,946 is grounded in a straightforward rationale. Investing Rs17,946 monthly in an investment plan yielding a 10.0% return over 15 years results in an accumulation of Rs 75 lakhs.

This elucidates the origin of the specified amount.

**Table 4.17 Loan Amortization Schedule**

Month	Loan disbursed	Interest per month	Loan Outstanding
1	17946	149.6	18,096
2	17946	300.3	36,342
3	17946	452.4	54,740
4	17946	605.7	73,292
5	17946	760.3	91,998
6	17946	916.2	110,861
7	17946	1073.4	129,880
8	17946	1231.9	149,058
9	17946	1391.7	168,396
10	17946	1552.8	187,894
...			
177	17946	60018.6	7,262,255
178	17946	60668.3	7,340,869

179	17946	61323.5	7,420,139
180	17946	61984.0	7,500,069

One of the FDG participant argued that that *‘₹17,946 per month pay-out is too low for the house worth of ₹1 crore’*. It is evident from their statement that loan to value ratio is in-adequate from the borrowers perspective.

**4.6.3 Awareness**

FDG participants quote *‘Hard to make people understand the product as they are sentimental’*, *‘Not meeting the needs of people’*, *‘We are not aware of the product until you say about it’* and *‘borrowers financial literacy poses a challenge in widespread of the product’*

Effective communication is vital to overcome emotional barriers and clarify the benefits associated with RML. Furthermore, the above remarks underscore the importance of aligning the product with the needs and preferences of the target audience and make it relevant and appeal.

**4.6.4 Perception**

FDG participants quote *‘What will be the state of heirs after my death, what complications they would face?’*, *‘I would be of zero net worth on death, how the society would accept it’*, *‘Needs a lot of documentation’*, and *‘Was happy when announced but shattered after availing due to heinous process’*

The above remarks raise possible issues with the RML’s paperwork requirements and the inheritance procedure. Elderly people with children, even though those children are themselves middle-aged to elderly adults, are less likely to take up RML loan. They also point out a mismatch

between what was expected and what was experienced, highlighting how crucial it is to improve communication and streamline procedures to give users a clearer, more rewarding experience.

#### **4.6.5 Alternatives**

In the words of few participants from FGD goes as follows:

*'Private players are more appealing, there is no end-use restriction', 'Property need not be self-earned one', 'The amount we get through private player is far high that bank offerings'.*

The preferences as exhibited by the participants is due to the perceived advantages such as favorable terms and conditions, flexibility, lower processing costs, etc.

## **CHAPTER V**

# **SUMMARY OF FINDINGS, SUGGESTIONS, AND DIRECTION FOR FURTHER RESEARCH**

### **5.1 INTRODUCTION**

### **5.2 MAJOR FINDINGS**

### **5.3 SUGGESTION**

*5.3.1 Aggressive marketing*

*5.3.2 Awareness among senior citizens*

*5.3.3 Cross-selling*

*5.3.4 Cultural Sensitivity*

*5.3.5 Policy Adjustments*

### **5.4 DIRECTION FOR FUTURE RESEARCH**

## **CHAPTER V**

### **SUMMARY OF FINDINGS, SUGGESTIONS, AND SCOPE FOR FURTHER RESEARCH**

#### **5.1 INTRODUCTION**

Reverse mortgage financing is developing as an important alternative option for improving the living standards of the elderly and preserving their financial stability, which has become an aging society (Tsai *et al.*,2023). Many Asian countries like China, Korea, Japan, and Western countries like the United States, and the United Kingdom realized the potential of Reverse Mortgage Loans and thereby modified the product based on the needs and requirements of the borrowers and make it more attractive. Reverse mortgage, though the concept is not even a decade old, is not getting the requisite popularity in India (Pahuja and Sanjeev,2016). The association of socio-demographic influences and retirement planning impacts the knowledge and awareness of the product Our study findings are in agreement with the existing literature in some dimension and quite contradict with certain other dimensions.

#### **5.2 MAJOR FINDINGS**

The findings indicate that age, education level, and health insurance have not significantly impacted the awareness level whereas gender and annual income have a significant impact on the awareness level of RMLs. These disparities in awareness can be attributed to cultural and societal factors, reflecting traditional gender roles and economic dynamics in Indian society. While our results diverge from the findings of Ashok and Vij (2023) regarding age, education, and health insurance, there is consensus regarding gender inequality, which highlights how strong the phenomenon is.

The study arrived at four important factors that could influence potential consumers of RML. They are comprehensive benefit, inheritance and family, alternatives, and perception. Moreover, the Focused Group Discussion (FGD) has opened up other aspects like regulatory barriers, interest rates, awareness, perceptions, and alternatives. Based on the inputs we got, it could be inferred that the awareness level is poor among senior citizens and the promotion of the product is also low. The bankers do not find any incentive or motivation to promote the product. They perceive that the associated risk with RML when comparing the regular mortgage. Even some of the bankers admitted on condition of anonymity they also indulge in cross selling. It means that when the borrowers approach the bankers seeking RML they sell house top up loans, personal loans, etc.

### **5.3 SUGGESTIONS**

Based on findings from our study, it is evident that awareness among senior citizens is minimal and their attitude and perception towards RML are not positive due to no proper marketing. Thus, the researcher propose the following suggestions.

#### **5.3.1 Aggressive marketing**

The regulating authority and the bankers should look through ways and means of promote the product aggressively. They need to devise not only aggressive but also appropriate marketing strategies. This could means and include widespread advertising, educational campaigns, and outreach programs targeting senior citizens, etc.

#### **5.3.2 Awareness among senior citizens**

Stakeholders including banks, financial institutions, and the regulatory body should work together on educational projects to raise awareness among the potential borrowers and their family. Workshops, seminars, and educational materials are a few ways to

educate senior persons and members in their about the benefits of RMLs will certainly enhance awareness among the target audience.

### **5.3.3 Cross-selling**

Cross-selling of the product is more likely inferred from the discussions. It is a concerning factor where the bankers divert the senior citizens from availing RMLs. This practice may indicate the lack of knowledge or dedication to attending to elderly clients' particular financial demands. In order to address this, banks must to give staff training top priority so that bankers are aware of RMLs and are prepared to offer appropriate substitutes while outlining the rationale. Moreover, the regulatory authority should monitor and enforce transparency in product offerings to protect the interest of the customers.

### **5.3.4 Cultural Sensitivity**

To overcome this, financial institutions should develop culturally sensitive marketing and communication strategies. They should talk about concerns about inheritance and emphasize the importance of having a comfortable retirement and a secure financial future.

### **5.3.5 Policy modifications**

Regulating authorities could possibly consider policy changes like enhancing the limits and stringent terms and conditions of RMLs, making them more attractive to the prospective borrowers. This could include even revising interest rates, providing more flexible terms that align with the needs of seniors. Regulators direct the bankers to achieve certain minimal percentage of RML in the loan portfolio as mandatory component.

### **5.3.6 Insurance**

The obvious answer to the issue of risk for loan buyers and sellers is a well-regulated insurance market for RML loans. The risk that the value of the mortgaged security will not equal or surpass the value of the loan availed, could possibly be covered by a suitable insurance policy. If such a policy exists, the bankers are protected from the major risk. At the same time, such an insurance policy could also shield borrowers from concerns about running out of equity and possibly even having to deal with eviction, etc.

Though RML is designed in a way that makes early eviction prohibited, elderly people frequently worry needlessly about things that have very little to no chance of happening.

### **5.4 DIRECTION FOR FUTURE RESEARCH**

The findings of the current study provide strong leads to future researchers in this field. Any empirical research conclusions are constrained by certain limitations, which also present unique chances for further research. This study is an early attempt to investigate the many aspects influencing the awareness, perceptions, and attitudes of people who would purchase RMLs. Reverse Mortgage is a comparatively new idea, there is not enough empirical research conducted in India. A more comprehensive examination of the macro-economic factors, psychological aspects of the borrowers, and the like could be investigated in detail. Further, the financial requirement of senior citizens varies from state to state, a study covering that cultural element with reference to various states could be of beneficial to the policy makers.

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## APPENDIX

This survey is being conducted as a part of research at Indian Institute of Management, Tiruchirappalli, sponsored by National Housing Bank. The survey seeks to assess the awareness, perception, attitude of prospective borrowers (Senior citizens) on Reverse Mortgage Loans(RMLs).

1. Name (optional):

2. Age

- 50-60       60-70       70-80       Above 80

3. Gender

- Male       Female       Prefer not to say

4. Marital status

- Single       Married       Divorce       Widow

5. Occupation

- Employed (full-time)       Employed (part-time)       Self-employed       Unemployed
- Retired       Homemaker       Other (please specify):
- \_\_\_\_\_

6. Annual Income

- Under ₹2,00,000
- ₹2,00,000 - ₹3,99,999
- ₹4,00,000 - ₹5,99,999
- ₹6,00,000 - ₹7,99,999
- ₹8,00,000 and above

7. Education

- No formal education
- Middle school (6th - 8th grade)
- Diploma or vocational training
- Master's degree (e.g., M.A., M.Sc., M.Com, MBA)
- Other (please specify): \_\_\_\_\_
- Primary school (up to 5th grade)
- High school (9th - 12th grade)
- Bachelor's degree (e.g., B.A., B.Sc., B.Com)
- Doctorate (Ph.D. or equivalent)

8. Do you have Health Insurance?

- Yes
- No

9. Do you have any other resident in your household

- Yes
- No
- If yes \_\_\_\_\_

	Dependent	Non- Dependent
<input type="checkbox"/> Spouse	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Son 1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Son 2	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Daughter 1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Daughter 2	<input type="checkbox"/>	<input type="checkbox"/>

10. Do you have Legal Heirs?

- Yes       No

If yes please specify

Occupation: \_\_\_\_\_

Annual income: \_\_\_\_\_

11. Are you aware of Reverse Mortgage Loan (RMLs)?

- Yes       No

If yes

a. The source through which you come know about RMLs.

- Newspapers       Online platforms       Word of mouth       Other (please specify):  
\_\_\_\_\_

12. Have you availed Reverse Mortgage Loans (RMLs)?

- Yes       No

If Yes

From whom you have availed:

- Bank       NBFC

a. How is your experience on availing RMLs?

- Very Satisfactory       Satisfactory       Neutral       Unsatisfactory       Very Unsatisfactory

b. What advantage do you see in availing RMLs?

- RMLs provide seniors with a stable source of income during post retirement.
- RMLs enable seniors to stay in their current homes and maintain privacy / independence.
- RMLs help to meet out emergency medical expenses

c.

d. What are some drawbacks / problems associated with RMLs?

- RMLs might lead to reduced inheritance for heirs due to loan repayment.
- RML comes with higher transaction costs and interest rates
- RMLs result in a decrease in the homeowner's equity over time.
- The process of availing RMLs is very complex and difficult to understand
- Loan to Value Ratio is extremely Low.

13. RMLS appeals to you because

- |  |  |
|--|--|
| <input type="checkbox"/> Non-recourse loan | <input type="checkbox"/> Standard monthly income |
| <input type="checkbox"/> Lumpsum amount    | <input type="checkbox"/> Lifetime home agreement |

14. Do you recommend RML to your friends/peer?

- Yes       No

If No, why?

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> High Interest rates          | <input type="checkbox"/> Limited features              | <input type="checkbox"/> Unreliable customer service      |
| <input type="checkbox"/> Negative personal experience | <input type="checkbox"/> Better alternatives available | <input type="checkbox"/> Other (please specify):<br>_____ |

15. To what extent do you believe that Reverse Mortgage Loans (RMLs) help you financially in your old age?

- Not at all       Slightly       Somewhat       Moderately       Very much

16. What do you think about the interest rates?

- Interest rates are not high at all.
- I think interest rates are relatively low.
- I don't have a strong opinion about interest rates.
- I feel interest rates are somewhat high.
- Interest rates are very high.

17. To what extent are you influenced by your family members while making decisions on RMLs?

- Not at all influenced.
- Slightly influenced.
- Moderately influenced.
- Quite influenced.
- Highly influenced

18. To what extent do you feel the pressure of bequest motive?

- Bequest motive doesn't influence my decisions.
- I feel a minor influence of bequest motive.
- Bequest motive has a moderate impact on my decisions.
- I feel considerable pressure from the bequest motive.
- Bequest motive strongly influences my decisions.

19. Have you thought about alternative ideas rather than opting for RMLs?

- Not at all       Slightly       Somewhat       Moderately       Very much

20. Do you have any concerns or reservations about RMLs?

- Yes       No

If Yes, What?

- Impact on inheritance for heirs
- High-interest rates and costs
- Uncertainty about long-term financial implications
- Difficulty understanding complex terms and conditions

Other (please specify): \_\_\_\_\_