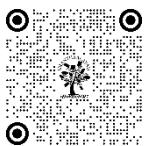


EXAMINING THE FACTORS THAT LEAD TO THE DELAYED GROWTH OF REVERSE MORTGAGES

Sachin Khare ¹, Dr. M.A. Khan ²

¹ Research Scholar, N.L. Dalmia Institute of Management Studies & Research (NLDIMSR), Mumbai University

² Professor & Director, NLDIMSR



Corresponding Author

Sachin Khare, sachinrkhare@gmail.com

DOI

[10.29121/shodhkosh.v5.i6.2024.3318](https://doi.org/10.29121/shodhkosh.v5.i6.2024.3318)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



ABSTRACT

Those who are 60 years of age or older are eligible for a Reverse Mortgage. Homeowners may access the equity in their fixed assets and put it to use in their golden years using this loan product. By using a Reverse Mortgage, homeowners are able to enjoy the benefits of their property throughout their lifetime without having to return any kind of debt. The worth of their residence is intertwined with their network, and it provides the income necessary for subsistence.

Aims and Objectives: From the viewpoints of the borrowers (the elderly) and the lenders (the banks and other financial organizations), this research aims to identify the variables that influence the efficacy or lack thereof of reverse mortgages.

Methodology: Books, journals, previous publications, and researcher interviews will make up the bulk of the secondary data set for this qualitative study.

Findings and Discussion: Examining the maintenance risk that borrowers face in Reverse Mortgages from both the lender's and the borrower's point of view is the primary objective of the present research. Researchers were able to successfully categorize and identify variation from both an internal and an external viewpoint in the research.

Conclusion: In order to reach a successful conclusion, it takes into account the Reverse Mortgage and the numerous factors that impact both borrowers and lenders when taking out a home loan, all while effectively managing their risk. The findings are based on literature and academic reviews.

Keywords: Borrower, Severity, Risk, Reverse Mortgages, Lenders, Interest Rate Risk, Bequest, Senior Citizens

1. INTRODUCTION

One kind of home equity loan is the reverse mortgage. An essential supplemental pension insurance policy, a mortgage allows retirees to get a release of their dwelling rights from financial institutions, a common practice in the housing market. China has been testing out reverse mortgages for six years, but the country's progress in this area has been quite slow [1]. Finding out if a lender's pricing, marketing, and underwriting choices are free from an unlawful impact is the goal of a fair lending examination. To rephrase, exempt from discrimination on the basis of federally protected traits as outlined in the Fair Housing Act as well as the Equal Credit Opportunities Act. Data used in the research were loan-level records obtained from the 2019 House Mortgage Disclosure Act (HMDA) growth. [2].

The world's population is becoming older, which is a major problem in our modern day. In addition, homeowners over the age of 65 have a high homeownership rate while having an income that is lower than the national average. Reverse mortgages and other equity release plans may assist seniors pay for rising healthcare expenses and maintain a comfortable standard of living, ensuring their safety and security in old age [3]. At now, India's human resource pool, which includes the country's greatest youth population, is among its most prized possessions. As things stand, only a

small fraction of India's senior citizens are formally insured by pension plans; the remainder rely on their families for financial support, which poses a serious risk to the country's future economic stability [4]. Selling the home before the end of the reverse mortgage term could be beneficial for the borrower. In order to analyze the termination rates, the authors look at the factors that influence an elderly person's choice to sell their residence before its term is over. Factors such as the elderly person's level of insistence on remaining in the house, the relative predictability of their death date, and the house's stochastic pricing all play a role in the decision-making process [5]. One prevalent issue in contemporary economics and finance is the aging population. One alternative to traditional retirement savings plans is the reverse mortgage, which allows homeowners to access the equity in their home and use it to fund their golden years [6]. These days, clients may get a wide variety of creative financial products from their banks to help them make money. Reverse mortgage loans are one of the bank's new and exciting financial offerings. The elderly are the primary beneficiaries of reverse mortgage loans. Older folks are able to generate cash with its help. They may turn their home equity into tax-free income with the help of a banker and a reverse mortgage loan. You are under no obligation to sell the home. Despite the market's expansion, Reverse Mortgage Loans have failed to provide satisfactory outcomes [7]. An individual's home equity may be used as collateral for a mortgage in a "reverse house mortgage of housing" that an older person might take out with the help of a financial institution. The borrower receives a portion of the home's value on a monthly or yearly basis until they pass away. This amount is determined after considering the borrower's age, expected lifespan, the property's present value, potential appreciation or depreciation, and other relevant factors [8]. For the elderly, who often own a house or two but don't make enough money to cover their essential or preferred level of consumption, a reverse mortgage may be a good alternative to traditional bank loans. A home equity loan allows seniors to access their home's value without having to sell or leave their property. This innovative financial product is often offered by banks and financing businesses. There is strong support for the introduction and use of a reverse mortgage products in light of the following factors: an aging population, low pension income, rising long-term care costs, competition for credit, and the high likelihood of poverty [9]. Households must make financial choices for the system to work effectively. Making reasonable judgments is crucial. The empirical investigations showed that consumers can't always make judgments that need complex mathematical computations and economic analyses. Customers in the 60+ age bracket are seen as frail, old folks who might use some more cash. A reverse mortgage may provide this opportunity [10].

1) RESEARCH GAP

Some elements (antecedents) that serve as either facilitators or barriers for reverse mortgage have been identified in the available literature. However, there is a lack of research that may categorize these characteristics according to the viewpoints of lenders and borrowers, with further subcategorizations possible within each viewpoint, such as internal and external factors (ecological factors). Following are some of the research issues that this project aims to address.

- To what extent do you think the following elements might either help or hurt the process of offering and receiving a reverse mortgage?
- What is the most important element in deciding if a Reverse Mortgage is approved?
- What was the deciding reason for the consumer to accept or reject the reverse mortgage plan?

2) OBJECTIVES OF THE STUDY

- The following goals have been established in light of the aforementioned research questions,
- To evaluate the current US and Indian reverse mortgage programs side by side.
- To find out what helps and what hurts with reverse mortgages from the borrower's and lender's points of view;
- To categorize the helpers and hindrances with reverse mortgages as internal as well as external factors;
- To reduce the identified factors to a common set of dimensions;
- To estimate how each factor affects the latent constructs of reverse mortgages;
- To find out what factors make a difference for borrowers when choosing and not choosing a reverse mortgage plan;
- To see how socio-cultural variables influence the process.

3) Contributions

One kind of home equity loan is the reverse mortgage. Mortgages are a useful retirement pension instrument because they allow seniors to get additional pension insurance by mortgaging their home equity to financial

organizations. The growth of the reverse mortgages in China is being greatly hindered, despite the fact that they have been piloted there for six years. Utilizing qualitative analysis, this paper contrasts the global reverse mortgage market with the Navi Mumbai Region's national conditions and investigates, from the policy system's, the market's, and the supply side's perspectives, the reasons behind the present blockage of reverse mortgage financing in China.

2. RELATED WORK

Bo, F., et.al., (2020) by comparing the global reverse mortgage market and China's domestic circumstances, this qualitative analysis technique seeks to understand the present state of the reverse mortgage loan in China from the viewpoints of the policy system, the demand side, and the supply side.

Lin, C., et.al.,(2023) In light of current government policies aiming to encourage the creation of long-term pension-related commodities with a development horizon of at least 10 years, this study primarily addresses the ageing population structure and the shrinking rate of interest in mass media deposits through data science. A study of Taiwanese reverse mortgage loans, a financial product aimed at the over-50 crowd. Investigated was the media's openness to promote reverse mortgage loans. The computer system's success mode, the idea of planned behavior, and expectation confirmation theory served as theoretical foundations.

Shi, K. (2023) article aims to conduct a comparative legal study of the reverse mortgage system for housing. Reverse mortgage is a financial service aimed at the elderly, which allows them to obtain liquidity by mortgaging their houses to financial institutions while retaining the right of use and ownership until the borrower's death or sale of the property. The article begins by providing a brief overview of the idea, features, and evolution of a reverse mortgage for housing. It then moves on to compare and contrast the reverse mortgage processes in four countries: Singapore, Canada, France, and the US. By comparing the systems in different countries, that paper finds that there are various differences in the legal status, contract terms, asset assessment standards, risk management and supervision, consultation and information disclosure, and dispute resolution mechanisms of reverse mortgage systems.

Chun, H. (2023) used the proportional chances logit model to ascertain the elements impacting the "sufficiency of old-age policies prepared so far" in relation to reverse mortgage borrowers included in the "2021 Housing Pension Demand Survey" conducted by the Housing Finance Corporation. As a result, they went after the reverse mortgage borrowers in an effort to discover a way to stabilize their income in old life. According to the results, the most important element affecting the adequacy of retirement plans for reverse mortgage subscribers was the adequacy of average monthly earnings, followed by the adequacy of assets for living in old age, and finally, satisfaction using reverse mortgage. Location of residence comes next, after which average monthly income is given. 'Sufficiency of old-age countermeasures developed so far' was unaffected by the demographic features of reverse mortgage subscribers, with the exception of the location.

Boj, E.,et.al.,(2022) examines the monetary implications of a reverse mortgage for families in a nation or group where individuals 65 and up own 100% of their property, regardless of whether they get a retirement income or not. This is why we construct a life cycle-based economic-financial model that takes into account two sources of randomness: death and family dependency. Probabilistic, temporal, and monetary metrics are used to assess the impact over the long run. The model has to be customized for each nation so it may match their specific retirement as well as long-term care benefit laws, as well as their specific actuarial mortality as well as long-term care tables.

Blevins, J.R.,et.al.,(2020) their novel identification finding for models with numerous terminating actions forms the basis of the estimator. The authors demonstrate that the discount factor and per-period utility functions may be found devoid of arbitrary identifying constraints that result in erroneous counterfactual inferences. We can quantify the trade-offs for suggested program adjustments, such income and credit restrictions, by referring to researchers' estimations, which give insights regarding variables that impact HECM refinance, default, as well as termination choices.

Martinez-Lacoba, R.,et.al., (2020) strives to provide a scholarly contribution about reverse mortgage programs run by the government. Based on their estimates, the findings indicated that a realistic approach would need the public administration investing about 0.73% of GDP in the form of reverse mortgages on 313,833 residences. From a public policy standpoint, that effort contributes to the development of other means of funding issues associated with societies' aging.

Fuente, I.D.,et.al.,(2020) studied the reverse mortgage provider's risk in relation to the increasingly popular lump-sum alternative. A value at risk (VaR) approach was used to quantify the risk that the mortgage provider faced. This

procedure modeled home price returns in the UK from 1952 to 2019 using the Monte Carlo simulation technique with an ARMA-EGARCH assumption. When it came to relatively young borrowers, the findings revealed that the reverse mortgage providers had to deploy more money to fulfill its regulatory capital needs. This was particularly true when the borrowers achieved their life expectancy as well as had high roll-up rates, since they faced increased risk. Among women, the danger was much greater.

Yang, J.,et.al.,(2020) Think about the challenge of estimating the amount of Koreans who will sign up for reverse mortgages and how big data may help. A Generalized Bass Model was used by the authors to include web-news, blog post, as well as search traffic levels related to Korean reverse mortgages as exogenous variables indicating marketing effort. The volume of web-news is seen as a surrogate for content created by marketers, whereas the quantities of blog posts and search traffic are seen as surrogates for material created by users. The results of the empirical study are rather intriguing: To start, the GBM's use of big data makes it a better tool for predicting Korean reverse mortgage sales than the MGC, and second, when it comes to estimating sales volume, the UGC is the more valuable external variable.

Zhang, Y. (2020) I propose doing an empirical study to determine what variables, including resident characteristics, economic position, knowledge of the insurance, and conventional societal conceptions, influence the desire of the elderly to enroll in reverse mortgage endowment insurance. Significant factors that influence for offspring when deciding whether they approve of their parents' participation in housing mortgage reverse endowment insurance coverage include the following: age, quantity of siblings, schooling level, marital status, physical condition, monthly income, monthly expenditure, occupation type, degree of awareness of the insurance, number of houses owned, and willingness to participate.

3. PROPOSED WORK

RESEARCH METHODOLOGY

RESEARCH DESIGN

The research strategy used in this work is an integrated one, based on mixed-methods techniques. The first is an exploratory study to catalog the elements, and the second is a descriptive study to calculate how much of an impact each element has on the reverse mortgage structure.

This study uses a descriptive research methodology to determine how each component affects the underlying concept. The what, when, how, and why of a phenomenon may be better understood with the use of a descriptive study approach. A descriptive research strategy is most suited to this study since it seeks to determine the latent construct by testing the influence of each element. Following the development of measuring items for each component and their successful completion of reliability and validity tests, multivariate approaches would be used to determine the influence on the underlying construct.

A recent American research, "social determinants of wellness," analyzes data to show that housing is the most significant component among environmental and living situations, which affect our bodies as much as genes and behaviors. The physical health of the elderly might improve when they are back in their comfortable family surroundings. Things will improve if retirees can keep their homes after they've left the workforce. That conventional Confucianism shaped the elderly's conceptions of "home" is also consistent with the study's findings. The views of the elderly are conservative, their image of "home" is well ingrained, and they despise being old. Prior to institutional care for the elderly, such as nursing homes, there is the value of familiar ambient life. When they retire, many Chinese seniors want to stay in their own homes. A growing number of seniors are opting for the innovative approach of communal home care in recent years. Combining family and social pensions, the approach provides a type of old-age care. As a result, many seniors are able to get the expert community care they need while still enjoying the psychological and spiritual stability of staying in their own homes. There aren't enough retirement funds or savings to pay for unexpected medical bills, housing costs, and community service when you're elderly. One major obstacle preventing the elderly from enjoying old life is the finance dilemma. Reverse mortgage loans are a great way for seniors to supplement their pensions and yet be able to live independently in their communities. In addition to bridging the gap, it may really enhance the financial situation for the elderly. Amenities like healthcare and tourism cater to the specific requirements of the elderly.

The researchers in this study opted for an experimental approach. When a researcher believes that there are variables in an area that have not yet been uncovered, they utilize an exploratory study strategy. Since the introduction of reverse mortgages to India occurred between 2008 and 2023,

- **Sampling Design:** The researchers in this study used convenience sampling. Our primary motivation for using convenience sampling in this study is to identify people in the Navi Mumbai Region who are not interested and partially interested in the subject of reverse mortgages.
- **Sampling Frame:** The decision-makers and homeowners are all part of the sample frame. We will learn about customer behavior and negative reasons about reverse mortgage loans by analyzing this sample frame. The lending firm is also a part of the example frame. The company's employees will make up the sample, and their answers will provide light on the business's character as we approach the loan approval process.

Sampling Area: This study's sample region is restricted by the Navi Mumbai Region area.

Sample Unit: Individuals who own a home in the Navi Mumbai Region region and are 60 years old make up the sample unit.

To get insight into the supplier's conduct, the sample unit is comprised of

- 1) Must be a current or former employee of the lending institution that is granting the reverse mortgage.
- 2) He belongs in the department where the loan is sanctioned.

Sample Size: I surveyed 30 seniors and 5 bank loan managers to get their thoughts on reverse mortgages. I also spoke with 3 representatives from financial institutions.

Instrument Design

Qualitative study: Semi-structured survey for focus group as well as indepth interview. A semi-structured questionnaire was created as part of this study. From the respondents' recorded and transcribed responses, factors were derived. Origin of Data Collection The study's findings will include not just the,

- 1) **Primary data:** Owners provided their responses. There needed to be in-depth interviews utilizing the soft laddering approach in order to uncover new components, since this is an exploratory research.
- 2) **Secondary data:** In order to determine what variables have contributed to the identification of reverse mortgages in India, it is necessary to conduct a literature study of relevant prior studies.

3.1. METHOD OF DATA COLLECTION

Data gathering in this study is based on in-depth interviews. We have conducted interviews with top bankers and transcribed the audio based on the interviews. We have created a semi-structured questionnaire as part of this study.

Error in Measurement An error that does not respond

We may encounter non-response errors in this investigation. Should an inquiry about the interviewee's residence arise, they are free to decline. Due to self-selection, there is a possibility of transcribing mistake while assessing the interviewee's answer. There is a possibility of prejudice in judgment.

Analysis Tools used

After the tape was transcribed, the data was cleaned up. Data cleaning is the process of removing irrelevant data from a dataset. The most common or frequently mentioned variables from all of the interviews were highlighted using the word cloud.

4. DATA ANALYSIS AND INTERPRETATION

Table 1 shows the Gender of Respondents

Table 1 Gender of the Respondents

Sex	Frequency	%
Male	375	75
Female	125	35

Total	500	100
-------	-----	-----

Source Primary data

Interpretation: The data in the table suggest that men make up the vast majority of responses, with only 25% being female.

Table 2 shows the Occupation of Respondents

Table 2 Occupation of the Respondents

Occupation	Frequency	Percent
Govt employee	75	15
Private employee	300	60
Business	24	4.80
Retired	20	4.00
Profession	17	3.40
Housewife	31	6.20
Others	33	6.60
Total	500	100

Source primary data

Interpretation: Half of the respondents work in the private sector, 60% in the professions, and 15% in the commercial world, according to the table. The percentage of stay-at-home mothers is quite low, at 6.2%.

The respondents' residential status is shown in Table. 3

Table 3 Residential status of the Respondents

Residential status	Frequency	Percentage
Primary residence	325	71%
Secondary residence	175	29%
Total	500	100

Source primary data

Interpretation: The data in the table above suggests that the majority of respondents (71%) are not renting but rather living in their own home. The fact that 71% of respondents own a home out of 100% of respondents is encouraging as it means that this group will create a great representative sample for our research (see table above).

Table 4 Are you open to the idea of a reverse mortgage when you reach the age of 60?

Intention of choice	Frequency	Percentage (%)
Very willing to	32	6.40
Can also be considered	14	2.80
Not very acceptable	145	29.00
Absolutely not accepted	270	54.00
Not ready yet	39	7.80
Total	500	100

Interpretation: The data in the table above suggests that the majority of respondents (54%) are not interested to choose reverse mortgage loan. As it means that this group will create a great representative sample for our research (see table above).

Table.5 Downsides of Reverse Mortgage Loan

After 60 years old, are you willing to choose a reverse mortgage?	Frequency	percentage (%)
It is better to "raise children to prevent old	50	10

age", and the house is reserved for future generations.		
Incomplete ownership	15	3
Children's opposition is easy to cause family conflicts	5	1
I feel that the income is not cost-effective, I feel that I have worked hard all my life.	321	64.2
Forms and terms are too complicated to understand	50	10
Others, such as rising house prices, but the pension is too low	45	9
Annual Insurance Premium (In effective)	14	2.8
Total	500	100

Disappointingly, only 9% of respondents to the intention poll titled "After 60 years old, if you are ready to get involved in the respects mortgage" expressed a willingness or ability to explore the reverse mortgage company. In terms of sheer numbers, 89% of the population has considered it, whereas 2% have not. In spite of the fact that the elderly who haven't considered it yet might end up becoming reveres mortgage clients, the fact that they make up 11% of the overall population suggests that they are reveres mortgage clients. Interest in taking part is low.

5. DOWNSIDES OF REVERSE MORTGAGE LOANS

When compared to alternative financing options, reverse mortgages could be somewhat pricey. Additionally, in certain instances, they might put the borrower in danger of foreclosure and the loss of their house. In the event of a spouse's death or placement in a nursing home, a qualifying spouse may have the option to stay in the house.

While reverse mortgages can be useful in some instances, they also have downsides that anyone who's considering one needs to be aware of. Those include:

Relatively High Fees

As previously stated, the reverse mortgage umbrella may cover a variety of products offered by various lenders. A reverse mortgage, on the other hand, will usually cost more than a standard mortgage due to the many costs that are associated with it.

A reverse mortgage home counseling organization that is recognized by HUD must be contacted by prospective HECM borrowers before they may apply for a loan. That usually won't cost you a dime, if any money at all. The counselor has to lay out all the possible expenses and how they function.

While this list is exclusive to HECMs, comparable lists will be available for other types of reverse mortgages.

- **Origination fee.** The lender's fees for a HECM loan may be \$2,500 or 2% of the home's value up to \$200,000 (whichever is higher), plus 1% of any sum above \$200,000. The sum is limited to \$6,000.4
- Real estate closing fees. Closing expenses for a reverse mortgage may add up quickly, just as they would for any other kind of mortgage. These might include things like a property inspection and appraisal, a title search, registration fees, mortgage fees, and the applicant's credit score.
- An initial mortgage insurance premium. About two percent of the home's worth is the usual rate for this.
- These expenses may be paid for in advance by the borrower using their own funds or by using the loan profits. Borrowers should also anticipate continuing costs, including:
- **Interest.** A reverse mortgage's interest charges build up over time, increasing the total amount that the mortgagee or their beneficiaries would be required to repay. The interest rate may go up or down depending on market conditions unless the borrower pays it all at once..
- **Servicing fees.** Lenders have their regular expenses, such processing payments and paperwork, covered by these monthly fees. These costs are capped at \$30 for loans with fixed rates or variable-rate loans with an annual adjustment, and \$35 for monthly adjustable-rate loans, according to HECM regulations.

- **Annual mortgage insurance premium.** On an annual basis, this amounts to 0.5% of the total loan sum. With that in mind, it will increase when the borrower takes out more equity.

Keep in mind that these figures only include HECMs and that other reverse mortgages can have different figures. A long-standing criticism of these loans is the high costs that borrowers must bear.

5.1. REFUSAL TO ACCEPT SOME FORMS OF GOVERNMENT ASSISTANCE

A homeowner's ability to receive some forms of government assistance may be compromised if they have a reverse mortgage.

The homeowner's income and assets will determine their eligibility for Medicaid, a federal-state health insurance programme for some lower-income and elderly Americans. Although the income from the reverse mortgage would not be considered taxable, any lump payment received from the loan will be considered an asset. They will need to spend down their assets to qualify if they have more than what is allowed by their state. Similarly, SSI, a government program for low-income persons, may take into account the amount borrowed from the reverse mortgage in one payment when determining an applicant's eligibility. Individuals are now limited to \$2,000 in assets (what SSI calls "resources") while couples are limited to \$3,000. "Spotlight on Materials—2023 Edition." Social Security Administration.

Benefits from Medicare or Social Security will remain unaffected by a reverse mortgage.

Lenders Can Foreclose in Some Instances

With a reverse mortgage, homeowners commit to paying for upkeep of the property, as well as real estate taxes, insurance, and other associated costs directly out of their pockets. The lender may be able to foreclose and remove the homeowner if this does not happen.

Potentially Expelled Family Members

The borrower or borrowers' death or prolonged absence from the property could trigger the reverse mortgage's due and payment date. Evicting a spouse who wasn't included as the borrower in the loan arrangement (often because they weren't yet 62 years old when their spouse taking out the loan) was a common occurrence in the past.

Significant changes were made to HECMs in 2014 and 2021, which extended the protections to some spouses. For example, it is now possible for qualified non-borrowing spouses to reside in the house indefinitely.

In order to qualify for a reverse mortgage under the 2014 regulations, the borrower's non-borrowing spouse had to be legally married to them at the time the loan closed and have stayed married until the borrower died. If a pair was legally married prior to the borrower died and stayed married till that person's death, the survivor might be eligible for the loan, even if the couple was legally unable to marry before the closure due to gender restrictions. Both the borrower and the non-borrowing spouses must have been permanent residents of the property throughout the closing and have maintained that status thereafter. If a borrower did not pass away but did enter a nursing facility or other institution, their spouse would still be eligible to stay in the house according to the new regulations that went into effect in 2021. When this changed, the spouse's payment on the mortgage would have been due after a year. If one spouse does not fulfill these criteria but still wants to stay in the house, they will still have to pay off the debt. If there are any additional successors, such children, residing there, the same holds true. It will have to be sold if not. So far as we can tell, the good news is that they get to retain whatever profit they make from the sale—provided it exceeds the amount required to repay the loan. Additionally, as long as the selling price is greater than or equal to 95% of the property's assessed worth, they will not be required to pay back the difference if the loan total is higher. A statement from the Bureau of Consumer Financial Protection states that "the lender will take the earnings from the transaction as payment on the mortgage, as well as the FHA insurance will pay for any remaining loan balance."

Another option is to just give it to the lender along with disappear.

Less Wealth and More Trouble for Any Successors

Further, if the homeowner's property is their only asset, a loan with a reverse mortgage can wipe out their fortune, leaving nothing for their children or grandchildren.

However, individuals are free to do what they want with their house, and a reverse mortgage might be a better option than asking relatives for money. As opposed to spending their latter years penniless, it is unquestionably preferable.

However, beneficiaries who are not qualified for a reverse mortgage also bear the financial responsibility of the property. In most cases, borrowers have 30 days from the date of the lender's payable and due notice to pay off the balance in one of three ways: by selling the house, purchasing it outright, or giving the deed to the lender. That time frame may be extended through as much as six months by some lenders, however. If the successor wants to retain the house but requires funding to do so, it may be useful.

6. DISCUSSION

Mortgage Risk in Reverse Regarding the reverse mortgage risk, insurance firms need a lot of money to keep investing in the reverse mortgage company, which has a lengthy business cycle and no way to get money quickly. The insurance company bears almost all of the risk because to the reverse mortgage policy's inadequate construction, which prevents it from being successfully securitized. The insurance company's excellent risk resistance capabilities and enough capital balance are prerequisites for this. Meanwhile, it is now impossible to anticipate the development of home prices with any degree of certainty due to Navi Mumbai Region ongoing economic upheaval. There will be massive losses for insurance firms if home values keep falling. Many insurance companies will not even consider doing business with reverse mortgages because of this. Furthermore, our population's life expectancy has been steadily rising. Insurance firms also have the significant difficulty of determining the average longevity of the senior population that is involved in the reverse mortgage sector. The insurance company's ability to efficiently and promptly recoup costs and collect income is further complicated by the fact that it is hard to foresee how the secondary housing market will evolve in the future; consequently, disposing of the mortgaged assets following the business's demise is also a risky factor.

Some of the ongoing reasons of consumers to not pick reverse mortgage loan,

Reverse mortgages are something insurance companies are hesitant to do.

Several insurance firms, such as PICC Life Insurance and Happiness Life Insurance, have received the pilot requirements since the reverse mortgage pilot project began in January 2014. On the other hand, the reverse mortgage industry is really dominated by the Happy Life Assurance Company. People in their latter years who have lost much of their mobility are the primary focus. Company growth has not been easy for Happiness Life because to several challenges, including but not limited to insurance price, company marketing, middleman assessment, risk aversion, etc. Only a small percentage of insurance providers have a positive outlook on the reverse mortgage market. Product price, risk commitment, and business marketing are the primary reasons insurance firms are hesitant to take out the reverse mortgages business, together with the policy system and variables affecting the aged.

Insurance Companies

■ Happiness Life ■ PICC ■ Others

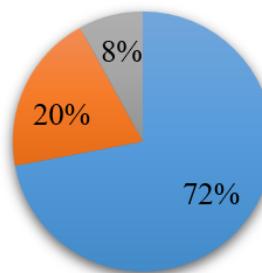


Figure1 Obligations of Consumers in Insurance Companies

For example, the borrower runs the risk of losing their house to foreclosure if they do not pay their property taxes or homeowner's insurance when due and do not respond to notices regarding keeping these accounts current.

Reverse Mortgage Product Pricing

The quantity of money that borrowers may get depends on a lot of things, and one of those things is the cost of homes for the elderly. The interests of both insurance firms and the elderly are directly impacted by this aspect. Products' prices have an effect on the level of involvement from both sides. With all due enthusiasm, you must ascertain the appropriate product's price. Nevertheless, the reverse mortgage industry encompasses several domains like insurance, real estate, finance, and asset assessment due to its uniqueness from conventional financial products. Because of the business cycle's focus on the long term, it is intricately linked to factors such as the direction of future home values, interest rate changes, sales of mortgaged property, insurance company capital chains, etc. The price of reverse mortgage loans varies because of this specificity. When compared to typical financial products, the price of other goods is greater, as are the difficulties and risk associated with pricing them. In order to determine the prices of reverse mortgage products, many factors are taken into account, such as the annuity payment technique, delayed annuity, administration and service fees, and the elderly's moral hazard. Think about things like life expectancy, interest rates, home price fluctuations, and the sale of previously owned homes in the future. A lot of factors, including the field, are involved. The reverse mortgage products' pricing is very complicated, making it impossible to manage effectively. This is a major deterrent for insurance companies when it comes to offering reverse mortgage loans.

7. CONCLUSION

There are a number of obstacles that are preventing reverse mortgage from being widely used as a trustworthy and socially acceptable way to generate income, despite its promise. It is a complicated instrument that puts the ordinary senior borrower at risk of being evicted, having their debts increased, and not being able to leave a gift to their heirs. Examining the maintenance risk that borrowers face in Reverse Mortgages from both the lender's and the borrower's point of view is the primary objective of the present research. Additionally, the research successfully categorizes and detects variation as it relates to both internal and external viewpoints. The literature along with academic reviews form the basis of the findings and conclusions, which are presented in a way that allows for effective analysis of the Reverse Mortgage as well as the numerous factors that impact both borrowers and lenders when taking out a home loan, all while effectively managing risk.

Pricing

- Annuity payment method
- Deferred annuity
- Management and service expenses
- Moral hazard of elder people

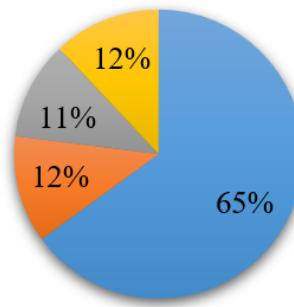


Figure 1 Obligations of Consumers in Pricing

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Choi, K., Lim, B., & Park, J. (2020). Evaluation of the Reverse Mortgage Option in Korea: A Long Straddle Perspective. *International Journal of Financial Studies*.

Buzałek, P., & Czechowska, I.D. (2020). Effect of capital conversion in the form of a reverse mortgage on benefits for senior citizens in major cities of Poland. *Finanse i Prawo Finansowe*.

Ashok, S. (2020). EXPLORING THE DETERMINANTS OF REVERSE MORTGAGE PURCHASE DECISION: EVIDENCE FROM INDIA. *The Journal of Internet Banking and Commerce*, 25, 1-33.

Ashok, S., & Dhingra, D. (2020). Reverse Mortgage: A Financial Planning Tool for the Retirees— Case Study Approach in India. *South Asian Journal of Business and Management Cases*, 9, 375 - 386.

Kuzmina, E., & Ianin, A. (2020). Modelling the profitability of reverse mortgage loans with life-long annuity payments. *E3S Web of Conferences*.

GopikaS, S., & Amutha, K.P. (2020). An Empirical Study on Customers Perception and Preference of Reverse Mortgage Loans with Special Reference to Palakkad District - IRE Journals.

Kannan, D., & Ma, L. (2020). Valuation of Reverse Mortgage.

Gorkhe, M. (2020). Study On Reverse Mortgage Loan In India.

Dai, K. (2020). On the reverse mortgage in China: An Empirical Analysis Based on risk neutral pricing method. *IOP Conference Series: Materials Science and Engineering*, 768.

Magurean, M. (2020). Reverse mortgage: a neural network approach for pricing and risk assessment.

Bo, F., & Dengxin, D. (2020). Analysis of the Reasons for the Slow Progress of Reverse Mortgage. *Proceedings of the 2020 4th International Conference on Management Engineering, Software Engineering and Service Sciences*.

Lin, C., Chen, K., Wang, W., Lin, Y., & Xie, M. (2023). Mass Media Member's Discussion in the Data Science by Advanced Analytics for Reverse Mortgage*. *2023 4th Information Communication Technologies Conference (ICTC)*, 348-352.

Shi, K. (2023). Study on Comparative Law of Housing Reverse Mortgage Loan System. *Journal of Innovation and Social Science Research*.

Chun, H. (2023). A Study on the Sufficiency of Old-age Measures for Reverse Mortgage Users. *The Korean Data Analysis Society*.

Boj, E., Claramunt, M.M., & Varea, X. (2022). REVERSE MORTGAGE AND FINANCIAL SUSTAINABILITY. *Technological and Economic Development of Economy*.

Blevins, J.R., Shi, W., Haurin, D.R., & Moulton, S. (2020). A DYNAMIC DISCRETE CHOICE MODEL OF REVERSE MORTGAGE BORROWER BEHAVIOR. *International Economic Review*, 61, 1437-1477.

Martinez-Lacoba, R., Pardo-García, I., & Escribano-Sotos, F. (2020). The reverse mortgage: a tool for funding long-term care and increasing public housing supply in Spain. *Journal of Housing and the Built Environment*, 36, 367 - 391.

Fuente, I.D., Navarro, E., & Serna, G. (2020). Reverse Mortgage Risks. *Time Evolution of VaR in Lump-Sum Solutions*. *Mathematics*.

Yang, J., Min, D., & Kim, J. (2020). The Use of Big Data and Its Effects in a Diffusion Forecasting Model for Korean Reverse Mortgage Subscribers. *Sustainability*, 12, 979.

Zhang, Y. (2020). Influence Factors of Attitude of Offspring on the Demand for Housing Reverse Mortgage Endowment Insurance in China.