

# Challenges in Reverse Mortgage – A Review

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## Abstract

A Reverse Mortgage is a type of loan which is suitable for senior citizens aged 60 years or more. . Through this loan instrument, the old age home owners can release the equity trapped in fixed asset and use it during their grey years. The process of Reverse Mortgage does not require the homeowner to pay any kind of loan repayment for buying a home and allows taking the benefit of the house during their lifetime. It provides needed cash for the sustenance of life, whose network is tied up in the value of their home.

**Aims and Objectives:** The main objective of this study is to study the factors that determine the success or failure of Reverse Mortgage both from borrowers (senior citizens) and lenders (banks and financial institutions) perspective.

**Methodology:** The current study is qualitative in nature so that the secondary data collection method is to be used which mainly includes books, journals, past articles, and researcher.

**Findings and Discussion:** The current study mainly focuses on evaluating the severity of borrower's maintenance risk in Reverse Mortgage from the borrowers and lenders perspective. The study also classifies and identifies variance that is translated as an internal and external perspective effectively. It also describes the findings and conclusion which is based on the literature and academic reviews so that effective conclusion will be done by making the consideration of the Reverse Mortgage and the various factors that affect the borrowers and lenders while taking the home loan and maintaining their risk effectively.

**Keyword:** Borrower, Severity, Risk, Reverse Mortgages, Lenders, Interest rate risk ,bequest , senior citizens

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## Introduction

Akin to various other countries in the world, India is also experiencing population aging. Due to improved standard of living, better medical facilities, increasing urbanisation, the life expectancy of an average individual has increased. But it has brought with itself another set of issues. The dissolution of joint family system, increased cost of living , increase of medical issues in old age and virtual non-existence of social security system in the country has raised many concerns for senior citizens. Reverse Mortgage as presented a golden wheel (Goyal, 2014) to aged people as an instrument to augment or to provide for the retirement earnings. A Reverse Mortgage a loan instrument by which eligible senior citizens can take a loan against property possessed by them from an approved lending institution (Rajagopalan, 2006). It is also known as a mortgage which enables the senior citizens aged 60 years or more to avail stream of income from a lender against the self-acquired house while maintaining the ownership and staying in the same house respectively. It was introduced in India in the year 2007 by then Finance Minister P.

Chidambaram. . As per the Reverse Mortgage process, the senior citizens are not required to repay the loan during their lifetime (Neha Mishra, 2019).

The concept of the Reverse Mortgage is operational in many developed Western countries and is quite popular among the senior citizens over there. It also provides a good spirit among senior citizens and improves their standards of living (BS Web Team, 2018). The Ministry of the Finance has issued vide notification no- SO 2310(E) dated 30th September 2008, which notifies the introduction of the Reverse Mortgage scheme in the year 2008. It provides the Framework under which the lender will be able to operate the scheme as per the guidelines given by the National Housing Bank for the operation of the Reserve Mortgage Loan scheme effectively. The Reverse Mortgage process is known as a new type of contract in India and is responsible to make up the shortfall that is present in the pension income of a senior citizen. It also helps the borrowers to have a standard of living in their golden years which is matching with their earlier years standard of living (Rasmussen, Megbolugbe & Morgan, 1997).

RM contract has been drafted as per the guidelines provided by the Governing bodies in India and was finally prepared by the National Housing Bank. The draft guidelines for Reverse Mortgage loans in India were prepared by the National Housing Bank.

### **Working of Reverse Mortgage:**

#### **Eligibility:**

- The house owners above the age of 60 years who have the clear title to the house in which they are residing are eligible to take Reverse Mortgage Loan and people having less age than 60 years are not liable to take facilities provided by the Reverse Mortgage scheme (Kaur Brar, 2011); (Howden-Chapman, Signal & Crane, 1999).
- Married couple are eligible as joint borrowers under the scheme. It says that the spouse will be joined with the borrower for financial assistance. In such cases, atleast one of the couple should be minimum 60 years of age and the spouse' age should not be less than 50 years.
- The scheme also mentions that residential property should be free from any encumbrance and must not include the commercial properties in eligibility criteria under the Reverse Mortgage Loan scheme.
- Further, the residual life of residential property should be atleast 20 years and it should be in use by borrower as his/her permanent primary residence.

#### **Loan Disbursement**

The amount of loan agreed upon by bank depends on the bank's valuation of the house/property which in turn is depends on age of borrower, his life expectancy, age of the property and the interest rates prevailing at the time (Sehgal, 2007). In respect to this, the maximum loan amount is up to 60% of the value of the residential property and maximum tenure of Reverse Mortgage Loan is 20 years.

The reimbursement of Reverse Mortgage Loan could be as monthly, quarterly, half yearly and yearly as decided between borrower and the lender. It also may also be in the form of lump sum payment and/or the line of credit.

Reverse Mortgage Loan could be used to fund the renovation, expansion, maintenance and Insurance of residential property, medical emergency, family expenses. The reverse mortgage loan may supplement pension and any other income (Atmadip Ray, 2014).

The scheme also stipulates the condition prevailing in the house and determines who can stay in the same house after the completion of tenure of a Reverse Mortgage.

### **Settlement of Loan:**

The RM Loan becomes due for repayment on the death of last surviving borrower or in the instance of the borrower leaves the property and shifts elsewhere. Under such circumstances, the loan along with interest becomes due for repayment. The bank may recover the loan through sale of the property mortgaged. The offer may also be given to the surviving heirs of the elderly for settlement of loan and take complete possession of the property.

The lenders have limited recourse to the extent of mortgaged property against which Reverse Mortgage loan has been taken. All Reverse Mortgage loans are expected to have "no negative equity" or "non-recourse" guarantee. The borrower at any point of time will not owe to the lender more than the value of property mortgaged.

Reverse Mortgage Loan are provided by the Primary lending Institutions (PLIs) viz scheduled bank and Housing Finance Companies which are registered under the National Housing Bank. To make focus on major Reverse Mortgage product in India; it mainly includes 23 and 28 FC that has launched the Reverse Mortgage Loan product. A number of Banks and financial Institutions are providing Reverse Mortgage loans in India. Saksham and the Dewan Housing Finance Limited is the first company in India to launch the Reverse Mortgage product in Mumbai and subsequently in Thane area (Saikat Neogi, 2017). Punjab National Bank is the first public sector bank to launch the Reverse Mortgage Loan products- Bhagban. The qualifying amount introduced by the bank is totally depended on the relay containing the margin of the 20%. It also includes the Baroda share which was launched by the Bank of Baroda as per the guidelines provided by the National Housing Board which ensure the maximum loan amount. It mainly includes the interest and restricts the mortgage limitation to Rupees 1 crore only which is subject to the margin of 20% as per the present market value of the property. Another RM Loan worth mentioning is Swabhiman plus which was launched by the Central Bank of India by the collaboration with Star Union Dai-ichi Life Insurance Company for the purpose of providing live and strength to the senior citizens (Goyal, 2014); (Antony, Purwar, Kinra & Moorthy, 2011). The SBI Reverse Mortgage is one of the largest public sector banks that have joined the Reverse Mortgage club by launching Reverse Mortgage Loan product by providing a joint loan with loan amount equal to the 90% of the value of the property (Kaur Brar, 2011).

### **Aims and Objectives**

The main objective of this study is to study the factors that determine the success or failure of Reverse Mortgage both

from borrowers (senior citizens) and lenders (banks and financial institutions) perspective.. In addition to this, the other objectives are as follows:

To identify the challenges studied in research for Reverse Mortgage from a borrowers perspective

To identify the challenges studied in research for Reverse Mortgage from the lenders perspective

To identify various measures studied in research that help reduce the reverse mortgage risks for borrowers.

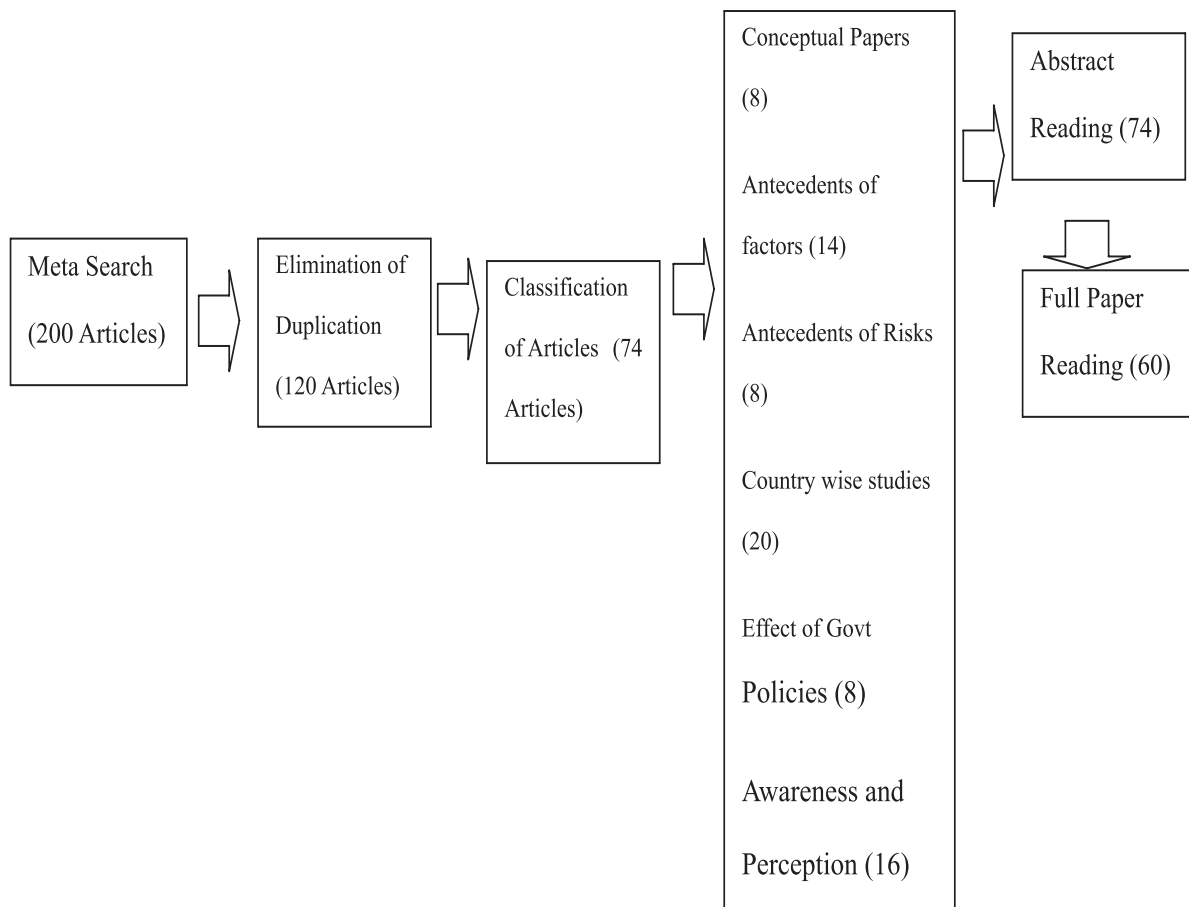
**Methodology**

This study adopts a systematic review of literature on the construct namely “Reverse Mortgage “Only original peer reviewed English journal publication were included. To find such papers we used EBSCO, SAGE, and Google Scholar data bases using key words such as Reverse Mortgage, Risks, Interest rate, Old age, retirement income,

bequest, factors, borrowers, lenders etc. The search yielded empirical studies, conceptual articles and reviews. The Meta search yielded 200 articles. After the elimination of duplicate articles, 120 articles were selected for the purpose of classification. The papers were classified into six categories namely Conceptual Papers ,Antecedents of factors , Antecedents of Risks , Country wise studies , papers stipulating the effect of Govt Policies ,and studies related to awareness and perception. 74 articles were selected from different groups for abstract reading. 60 papers having most relevance to the topic of interest were finally selected for full paper reading.

The following figure presents the steps followed to eliminate and select the final articles that were read to carry out the review.

**Figure: 1**



## Literature Review

Huan & Mahoney (2002), define reverse mortgage as an innovative financial product which enables the senior citizens to convert their housing equity into cash flow when they need it the most. Senior citizens above the age of 60 can mortgage the house property with the lending institution. The borrower at this age is usually not eligible for any other loan but reverse mortgage instrument not only provides cash flow but also provides the lifetime right to the senior citizens to stay in their own house. As a result, the Reverse Mortgage scheme has become an important source of financing the post-retirement life of significant and fast-growing urban middle-class senior citizens in India. It may be termed as “house rich but cash poor” phase, because of the insufficient cash inflow after the retirement.

Chatterjee (2016) defines Reverse Mortgage (RM) loans as a “hybrid financial product” that allow homeowners above the age of 60 to borrow against their property that is the place of primary residence. The borrower can meet his retirement expenses and continue to live in the house for the rest of his life without worrying to make repayment of the loan.

Tribunella (2014) remarks that Reverse Mortgage is an important financial tool which has gained acceptability among retired individuals who have limited savings and but they have equity tied up in assets.

Delgadillo et al., (2014) see increasing market for reverse mortgage loans. The researchers see huge market potential because of changes in demography having population with longer life spans, lesser pensions, and presence of debts and mortgages. The more number of elderly with housing equity will need to tap their home equity in retirement.

Ando and Modigliani (1963), Friedman (1957) Modigliani and Brumberg (1954 etc support the consumption smoothing theory. To elaborate, their studies have discussed that elderly are likely to favor reverse mortgage loans to be able to maintain their standard of living and pay for their consumption requirements in the retirement.

Zheng, Xikun (2016) studied the interest rate fluctuations and analysed the influence of interest rate on reverse mortgage loan pricing. Their study suggested that the lenders can introduce interest-rate ceiling or floors, so that the borrower or the lender can get the benefits.

Rajagopalan (2007) in his paper remarked that reverse mortgage helps elderly meet their retirement expenses by taking a loan which they do not have to pay in their lifetime.

Mohammed, Sulaiman have used ReMUIM (Reverse Mortgage Use Intention Model) to identify the underlying

behavioural factors that can influence potential borrowers willingness to use reverse mortgage as a source of supplementary income in old age. They have cited various factors such as social status, bequest motive, awareness about the product, societal influence; attitude, purchase intention influenced by their belief about opportunities (availability of reverse mortgage products, desire to age-in-place) resources and risk averseness or debt averseness etc influence the borrower's willingness to borrow reverse mortgage loans.

Mitchell and John (2004) studied the demographic conditions in Japan to assess the need and demand for reverse mortgage in the Asian country. They found that Japan, one of the world's most developed countries is experiencing a high aging rate, small size of families due to declining fertility rate, growth in life expectancy. Reverse Mortgage, in such situations is ideally suited for aging Japanese to supplement their income post retirement. The researchers professed that Reverse Mortgage could help the government in coping with financial strain imposed by population aging on Japanese economy.

Eschtruth, Sun and Webb, (2006) find in their study that the average wealth of households aged 55 to 65 in US has increased substantially due to appreciation of housing value. Their study revealed that the interest rates affect the amount of loan that will be available to borrower as it directly affects the percentage of the value of property that can be borrowed. As per their study, an average American could receive only about 50% of their home through Reverse Mortgage at the prevailing interest rates in the US.

Davidoff and Welke (2004), in their study selection and moral hazard in reverse mortgage see a positive correlation between HECM participation and the rate of departure from home. Participation in HECM is associated with more rapid mobility in both borrowers and non-borrowers in high appreciation states. They further suggest that the basic advantageous selection may be challenged by Moral Hazard risk due to decline in price appreciation.

Their survey also reveals that single women who opt for reverse mortgage loan are more likely to leave their place of residence than the observably similar non-borrowing homeowners.

S Moulton et al (2019) modelled the reverse mortgage loans against other options of equity borrowing. They compared the borrowing patterns in the credit constrained areas and non constrained areas and found that the borrowers in credit constrained areas are more likely to opt for Housing Equity Mortgage Loan than in non-credit constrained areas specially during the housing boom.

Barbara, Megbolugbe, Rasmussen (1996) explored the effect of Reverse Mortgage on economic status of elderly women. Their study indicated that a high proportion of elderly women living alone are attracted to reverse mortgage loans to supplement their old age income. The reverse mortgage scheme however has not been completely able to alleviate low income and poverty among elderly women.

Bishop, Shan (2008) studied HECM loans in US and found that borrowers in HECM scheme have become younger over the time and HECM program has the highest termination hazard and couples have the lowest.

Rasmussen et al., (1996) studied the senior citizens motives for obtaining a Reverse Mortgage. They concluded that “life-cycle motive” and the “asset management motive” are the two driving forces behind the borrowing motives of senior citizens. The aging population opts for reverse mortgage to draw down wealth in their old age and to diversify illiquid housing wealth.

Bureau (2012) report studies that releasing home equity has become popular since 1970 and 1980. Reverse Mortgage Loan is provided in various forms in different countries like USA, Great Britain, Australia, Canada, New Zealand, Japan, and Singapore. The Reverse Mortgage scheme is particularly famous and successful in the United States famously known as Home Equity Conversion Mortgage (HECM). India has taken the concept of Reverse Mortgage scheme from the United States and customized it as per the local requirements of the citizens. There are various commercial banks that offer reverse mortgage loans (RMLs) in India since 2008. A similar product in the form of convenient builder arrangement is also popular in India especially for the senior citizens who are facing a cash crunch. The agreement allows the senior citizens to acquire a proper valuation of their property or enter into the arrangement with the builder to construct multi-story flat at his property. The builder usually keeps one floor for himself and builds rest of the floors for the owner in addition to giving some cash. As a result, the owners are able to get the correct evaluation of their properties and gain enough capital or cash for living their retirement life.

Livemint.com (2007) the reverse Mortgage Loan has enabled senior citizens to afford better facilities for themselves in their old age. The main purpose of the Reverse Mortgage Loan is to generate the income for the elderly by providing equity or cash or capital against their houses.

During the long term borrowings, the owners receive a monthly premium payment from the lender. As a result, the loan balance increases at the end of the long term

borrowings because of more creditability of equity degrees over time. Thus, the right loan balances (advances) are made available to the borrowers (owners). On the other hand, interest is added to the outstanding loan. As a result, less incentive is available to make capital investment or maintain the condition of the property which allows the senior citizens to get the right value of their property.

Leviton, (2002), Warshawsky & Zohrabyan, (2016), throw light on type and structure of the Reverse Mortgage loans; it includes three types of the Reverse Mortgage such as a single-purpose Reverse Mortgage, Cost single purpose and home equity conversion mortgage (HECM). Single-purpose Reverse Mortgage is offered by the state local and non-profits agencies and considered as the least expensive process. The state & local government and non-profits agencies mainly provide reverse mortgage and help the senior citizens to get the right valuations of their properties. Cost single purpose loan is usually provided for payment for the home repair or property tax effectively. It also provides facilities of repair and maintenance items which mainly includes the release of payments for the conduct of the necessary repairs to the home property and payment of taxes.

In contrast, in the single purpose Reverse Mortgage the payment is provided one-time lump sum. The proceeds become due, when he sells home, moves to another primary residence or die. However, if the borrower stops maintaining the property or homeowner does not pay the insurance on the property the repayment may be triggered. As a result, it is a limited option for the home owner to pay less interest for a single-purpose Reverse Mortgage of the house equity conversion mortgage. Additionally, there is Home Equity Conversion Mortgage (HECM) federally issued by the department of Housing and Urban Development in the USA. It is more expensive as compared to the traditional home loan because it constitutes a high upfront cost. It mainly uses a wide range of reverse mortgage processes because it carries no income limitation on the maintenance requirement.

Home Equity Conversion Mortgage is not considered a Government Loan but it insured by the federal housing administration. (Austin Quinn, (2017). It is regarded as a part of the mortgage insurance premium and is responsible for collecting payments at the closing which is equal to the 2% of the home appraised value. It also collects the annual premium which is equal to 0.5 standing loan balance and focuses on the property propriety reverse mortgage. It is privately insured by the mortgage company and is based on the standard best practices which provide consumer protection. It is privately insured by the mortgage company and is based on the standard practices which provide

consumer protection effectively. Moreover, in the HCM program, mandatory evaluation of the proprietary is necessary for the reverse mortgage process to meet the older homeowner property eligibility for the FHI financing and must record that the valuation of the home does not exceed 1 million dollars.

According to Rodda et al. (2000), Caplin & Leahy, (2002), various risks are associated with the reverse mortgage both from borrower and lenders perspective..... Mainly includes the cost that is related to the cost of loan switches. They also pointed complex nature of loan which makes it difficult for elderly to understand the features of the loan. There is also lack of awareness amongst elderly about the reverse mortgage loans they suggested addressing all the problems that increase the issues for the retirees effectively.

Andrew Caplin (2001), in their paper, has discussed the Reverse Mortgage market, historical perspectives and problems associated with the Reverse Mortgage. The market scenarios related to the lending of money are highly based on regulatory directives laid down by the governing bodies which lay physical and legal obstacle in the spreading of the reverse mortgage. As a result, it requires high transaction cost which includes growing volume with respect to the declining trends in the cost. It also includes the risk of more property evaluation because of maintenance issues, resulting in a decrease in equity value. It also results in less availability of equity at the time of emergency because home equity is an important part of the precautionary saving. Additionally, the homeowner has a stationary use over the equity as a Reverse Mortgage fund. As a result, the ability to meet the unforeseen expenses could be seriously hampered which reduces the worth of the property assessment. It also creates the aversion to debt because there are various retirees who simply make use of relief and tend to take the loan against the house so that they do not have spent much for the life saving to the bill. It also requires low fees paid to the loan originator and provides less motivation for the aggressive market regarding the product.

Nakajima and Telyukova (2014) used calibrated life-cycle model of retirement to analyse reverse mortgage. Their model revealed that the average welfare gain from the borrowing instrument is \$885 per homeowner and that the households with low income, poor wealth and poor health benefit the most from reverse mortgage loans

### **Challenges facing the borrowers: Reverse Mortgage**

A detailed report of CFPB to Congress, June 2012 stipulated various factors that have contributed to low penetration of RML in the market. As per their survey, it is not the lack of awareness but the lack of interest that has

affected the acceptance of RML. Various reasons attributed to lack of interest have been listed as a general suspicion for the product, the product been seen only as a last resort, a desire to own a mortgage free home, bequest motive, general resistance to loans and social stigma attached to borrowing and mortgage in some societies.

The report also indicated that there is an added risk to borrowers because of change in their intention to use RML. Initially, the purpose of the reverse mortgage loan was to enable the home owners to convert their housing equity into cash to meet their expenses in the old age. Increasing number of borrowers is however now using RML to repay or service their existing loans and mortgages. This means that although the borrowers are able to solve their existing debt problem but it has also restricted their ability to raise cash at the time of emergencies.

The report also suggests that some of the younger (in early 60s) borrowers who borrow against their property to increase their cash flow before downsizing their residential property may be putting their long-term financial stability at risk by tapping their home equity too early as they are more likely to outlive the years for which they will be receiving the loan installments. Some borrowers prefer to take lump sum upfront against mortgage of their residential property. These borrowers also face the risk of extreme financial crunch after a few years in the absence of any other sources of income.

Report further indicates that the borrowers are susceptible to misleading advertisement due to complex nature of RMLs. Also, RML include different type of upfront and ongoing costs which the consumers find difficult to understand. Some of these costs may even make the RMLs costlier than the traditional loans.

AARP Survey (2006) however indicated that the desire for holding cash has increased amongst the borrowers. The survey indicated that the prospective Reverse Mortgage borrowers held the desire to improve their quality of life and hold sufficient cash for emergencies.

Manning Greenwood & Kirby (2018) throw light on the risks which are related to the Reverse Mortgage from the borrower perspective; According to them the reverse mortgage from the borrower perspective is difficult to understand because it involves a very complex and confusing process. Thus, the senior citizens who enter into the reverse mortgage do not fully understand the terms and condition which are related to the loan. It also makes an adverse impact on senior citizens workings and living standards. Additionally, the reverse mortgage is a very expensive process because of its type and implementation process.

Apart from this, the fees charged for the processing of the Reverse Mortgage process includes payment of 0.5% to 1% from the lender in the form of insurance premium. As a result, the additional initial cost gets added up while borrowing in a Reverse Mortgage Loan which is not accepted by the borrowers positively. In addition to this, since the senior citizens (borrower) are not required to pay the monthly payment on the reverse mortgage the interest over the advance loan accumulates. It highly impacts the borrowers in a negative way and restricts them to actively seek the Reverse Mortgage loan.

The previous loan is also evaluated on the basis of the calculated table and makes a reverse impact on the mortgage process. As a result, the compound interest of the home loan is secured for the borrower. Apart from this, it was examined that Reverse Mortgage Loan is especially suited for the short term duration for senior citizens.

Whereas, more risk is involved during the long term, which makes a negative impact on the prospect of senior citizens adopting the Reverse Mortgage Loan process effectively. Moreover, the payouts made to the borrowers are subject to change and also depends on the interest rate and valuation of the property at least once in 5 years which may decrease the payout.

As a result, the evaluation of the property rate of interest in terms of the value of the property goes up and down which makes a negative impact on the motive of the senior citizens.

According to Saurabh Padmakar Balote (2016) there are various drawbacks in Reverse Mortgage offerings that make this proposition risky and unattractive for the borrowers. These include Limited payout tenure, low loan to value ration and uncertainty of payouts.

1. Limited payout tenure: As per the operational guidelines of National Housing Bank for the Reverse Mortgage Loans the loan the maximum loan disbursement is 20 years. In case the borrower or his/her spouse outlives the tenure they may not have adequate money to support their survival.

2. Loan to Value (LTV) Ratio is Low: the Loan to Value ratio, in case of Reverse Mortgage Loans, is only 60% which is low considering higher equity in houses and rate of appreciation of residential property. It makes reverse Mortgage loan a low income generating option compared to the value of the asset.

3. Uncertainty of payouts: The lender is required to carry out the valuation of property at regular intervals which should be at least once in 5 years. At the same time, there are fluctuations in Interest rates. Payouts may change as per the property revaluation and change in rate of interest if

the floating Interest rates are offered. This makes the payouts uncertain for the borrower as well the lender.

4. Taxation Uncertainty: There is uncertainty on the treatment of taxation for the borrower. There is lack of clarity whether RM payment/instalments are treated as income of the borrower. And if it does, what would be the treatment of Interest on Loan accrued. There is also lack of certainty as to how capital gains will be treated, especially if those accrue totally or partially to the lender.

Hammond (1997) cites some issues that pose a hurdle to acceptance of reverse mortgage by both borrowers and lenders. These include priority of liens, mortgage-recordation taxes, restrictions on terms and rates of mortgages, limitations on use of proceeds, and mandatory counselling requirements.

Andrew Caplin (2001) lists out several psychological and social factors such as bequest motive, aversion to creation of debt, psychological attachment with property.

A possible aversion for RML is strong bequest motive. In most of the societies, especially Indian society, elder people want to leave behind their property for their children. They may also fear antagonising their children by committing their property to bank against financing their old age needs.

According to Chia and Tsui (2005) social dimensions like bequest motive and stigma attached to mortgage and psychological dimensions like attachment with their homes and reluctance to mortgage the home are significant obstacles to the success of Reverse Mortgage.

The bequest motive has been echoed in 1996 study by Dobrof & Moody who suggested that the elderly's desire for leaving a legacy actually stems from their basic need for a "sense of immortality". They feel that somehow they will live on the memories of their younger generations.

According to Michelangeli (2010) reverse mortgages benefit the cash-rich households but may reduce the welfare of house-rich, cash-poor households. This may look counter intuitive but if cash-poor households have to leave their place of residence for health or nay other reason, the high upfront fees and accumulated interest rates will leave very less value of the house left for their consumption leaving them poorer than before.

Some homeowners regard having to take a mortgage as a shame and hence do not tell anyone except very close relatives, even if they do take the RML. This hinders the word of mouth publicity of RMLs (Leviton, 2002)

### Challenges Facing the Lenders: Reverse Mortgage

As per Consumer financial Bureau report June 2012, the RML pose different kinds of challenges to borrowers. Firstly, lenders find it more complicated to sell and service than traditional mortgages. IN RML, the cash flows and repayment are uncertain. The repayment is in lump-sum at an uncertain future date from the sale of property. The value of sale cannot be pre determined. Further, there are reputational risks involved in foreclosing on senior citizen in case of tax and insurance defaults.

Saurabh Padmakar Balote, 2016, Szymanoski, Edward J. Jr (1994), Rajgopalan (2006), Shiller and Weiss (2000), Singhal, Saket & Jain, Amit (2008) have analyzed various barriers and risks which are related to the lenders of Reverse Mortgage Loan.

The Lenders (PLIs) face various risks such as Longevity Risk, Crossover Risk which is a function of occupancy risk, mobility risk, mortality risk, interest rate risk, and home appreciation risk; interest rate risks, early repayment risks, moral hazard risk, litigation risk) which are related with their reluctance to offer RML.

Longevity Risk or Mortality risk: Reverse Mortgage Loan is not a very attractive product for the lender as the lender has to provide the payment upfront as a lump sum or as instalments for the life of borrower. The lender can recover the amount only the death or moving out of borrower as the case may be, the timings of which is uncertain. If the borrower lives longer than expected, it becomes uncertain for the lender to be able receive entire loan value along with accrued interest.

Cross-Over Risk: There is high risk of the loan value exceeding the value of property. This is termed as crossover risk. Increased life expectancy, increased payout due to appreciation in value of property, fluctuations in Interest rate may lead to the cross over risk. RM is a 'non-recourse' loan which necessitates that the Borrower will never owe more than the net realizable value of their property. If the loan value exceeds the net realizable value of the property, it is a loss to the lender.

Early Repayment Risk - The lenders also face the risk of early repayment by the borrower. The borrower has the option of prepay the loan at any time during the loan tenure. The lender, however, will not be allowed to charge any prepayment penalty for the same.

Moral Hazard Risk -Risk of Moral Hazard often makes the RML option unattractive for lenders. Since the property is mortgaged to the lending institution, the borrower may lose interest in maintaining the property. The borrower may be negligent in renewing home insurance or in payment of

property taxes. There is also a chance that the elderly borrower may become incapable of maintaining the property. This negligence of property may lead to depreciation in the value of property. This Moral hazard risk may take many years to accumulate. Moral hazard risk is not diversifiable. Davidoff Welke (2004), in their study selection and moral hazard in reverse mortgage have also stressed on the significance of Moral hazard in house maintenance. The moral hazard risk increases if there is decline in property appreciation.

Interest Rate risk: The lender receives a lump sum repayment of the RML at the end of loan tenure. This repayment includes the interest rate that accumulates over the years. Considering the fact that the borrower is an elderly citizen and generally averse to risk, he is provided a fixed interest rate equivalent entitlement. This exposes the lender to risks related with interest rate fluctuations. If the interest rates move in direction opposite to the anticipated one, the lender stands to lose.

Takeover of Property by Government Agency: In case of RMLs, lenders have the claim only on the residential property of the borrower. In case the land is taken over by government for some development project, it is the lender which stands to lose.

Szymanoski (1994) also threw light on various risks faced by lenders in advancing reverse mortgage loans. He identified Reverse Mortgage loan as a unique loan as it is a 'rising debt' instrument. Since Reverse Mortgage is a non-recourse loan, the lender cannot any other property of borrower. The lender may lose money in case the value of loan combined with accumulated interest falls short of the value of the house. He identified three basic sources of risks-Mortality risk, Interest rate risk and property market risk.

Mortality Risks arises when the borrower lives longer than expected and the value of loan exceeds the value of property. This risk can however be balanced assuming there will be some borrowers with poor health and shorter life spans.

Interest rate risk on the other hand is not diversifiable unlike the mortality risk. The lenders usually charge floating interest rates to minimise their loss but the interest can only be recovered at the time of loan settlement by disposal of the property.

Property market risk is also a diversifiable risk if the borrowers are spread across wide geographical areas.

Further, the literature discusses others risks which cannot be ignored. There is a risk of Borrower declaring bankruptcy after having borrowed through RM. There are



certain regulatory risks that affect the lenders.

### **Borrowers' maintenance of risk**

According to Belsky, Case & Smith, (2008, February), Goetzmann Capli Hangen, Nalebuff Prentice, Rodkin & Skinner, (2003), to maintain the borrowers maintenance risk as per the borrower and lender perspective, the maintenance of the credit insurance against loan payment production approach is necessary. It will help to mitigate the risk between the borrowers and the lenders.

It mainly includes the nature of the credit insurance which covers a range of credit products which are loans mortgage, second mortgage, home equity line of credit and credit card. It also includes different events which cover the accident, non-repair issues, and replacement of the personal property and so on. In case of purchase of a product or a house for sale, approval from Personal Finance Department regarding the loan application in conjunction with the purchase of a good is to be done effectively.

It also includes the use of credit insurance which is tracked under Federal Reserve board since 1977 and periodically sampled under the random samples of the household to carry credit insurance in different products.

Reverse Mortgage is a complex product and advanced age makes it more difficult for senior citizens to understand this instrument. Lack of literacy may be another reason for elderly to be reluctant to accept reverse mortgage as a means to sustain themselves in old age.

The lending institutions must provide counselling to the prospective borrowers about the possible impacts to the borrowers due to adverse movements in interest rates and property price fluctuations. NGOs like Help Age, Dignity Foundation, Indian Association of Retired Persons (IARP) etc., may also provide consultancy to senior citizens.

Certain provisions /factors such as Clarity in tax treatment of RM receipts, accrued interest, capital gains, Option to refinance in case interest rates decline substantially, Protection against lender defaults, legal protection against eviction from property based on fine print will reduce reluctance on part of borrowers.

Additionally flexibility in withdrawals will make RML more suitable to borrowers needs.

Ahlstrom, Tumlinson and Lambrew (2004) expounded that linking reverse mortgage with long term care can address the need to better prepare the near elderly and elderly for the cost of long-term care. They further propounded that using a reverse mortgage to purchase long-term care insurance can help protect peoples' retirement savings, limit the financial responsibility of the Federal and State

governments, and provide care options suited to the individual needs people in their declining years.

Ruchi Arora et al studied the behavioural aspects of senior citizens related to reverse mortgage scheme in India. They found a very strong case for reverse mortgage due to various factors such as reducing fertility, increased longevity, and lack of social security system in India. In such a scenario, reverse mortgage is expected to become a significant option to finance post retirement expenses for burgeoning urban middle class. They, however, found several biases that affect the attractiveness of reverse mortgage loans. One such bias is conservatism bias which is apparent in people in India who are accustomed to culture and tradition. They form an emotional attachment to their houses and have very little desire to sell or mortgage the property to bank. This is attached to social stigma. Another bias is mental accounting bias which can be explained by tendency of people in creating accounts in their minds and keeping assets and liabilities separately. Elderly do not see house as an effective retirement financing too due to mental accounting bias. They also found that increasing retirement income is not a viable option for senior citizens whose priority is leaving estate to heirs.

### **Findings and Discussion**

The phenomenon of aging is being experienced globally. There is a demographic shift in favour of elderly population because of improved living standards and sanitation ;wider access to medical care leading to increase in life expectancy .Developing countries are are also experiencing the phenomenon of population aging specially since these countries have been able to control the death rate but birth rates continue to remain high. This population aging has however thrown many challenges in both social and economic domains.

A reverse mortgage is the type of loan instrument which answers the growing needs of ageing population by providing them an option to convert the equity locked in the form of housing assets into cash flow. The facilities provided by Reverse mortgage scheme are beneficial for the senior citizens in any kind of repayment option of the loan. The reverse mortgage, in one form or the other has been around for more than 400 years in various countries of Europe. After gaining popularity in USA and various other countries, it was introduced in India by the finance minister P. Chidambaram as a solution for the senior citizens to finance their retirement by lending the house. It was expected to be very successful in India as there is virtually no presence or very little and insufficient presence of social security schemes for elderly in India. Various banking and

non-banking institutions are structured reverse mortgage loans like PNB Bhagban; Baroda shares Housing Board facilities, Central Bank of India and Swabhiman Plus which offer RMLs for senior citizens. The Reverse Mortgage Loan schemes highly depend on the discretion of the primary lending Institution and involve the consideration of different conditions like presence of at least one owner with above 62 years old or above. This study highlights the various issues which are faced by the homeowners such as periodical valuation of property, interest rate fluctuations, complexity of product, fixed and limited tenure, reluctance of banks to provide loan to name a few. All these make a negative impact on the motive of the senior citizens and restrict them from actively participating in the Reverse Mortgage loan process.

The literature also discussed various issues and complexities faced by the lenders which make them reluctant to offer reverse Mortgage loan. These include Mortality Risk, Cross over risk, risk of Moral Hazard, early repayment, interest rate fluctuations, lack of clarity in taxation etc. Legal, taxation and other regulatory uncertainties also adversely affect the acceptance of RMLs. Issues faced by lenders and lack of sufficient support by govt or regulatory policies restricts the lender from offering reverse mortgage loans. Study also dwelled on focused on various credit insurance facilities so that the barriers are addressed and mitigated effectively.

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