





# Empirical Study of Consumer Preference w.r.t. Home Loan using Data Analytics

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#### **ABSTRACT**

Purpose: The rising population and rapid pace of urbanization owing to the rural-urban migration offers huge untapped potential especially in the affordable housing segment. According to Census 2011, 377.1 million Indians comprising 31.14 percent of the country's population lives in urban areas, which is projected to grow more than 600 million by 2031. According to National Association of Home Builders, the housing industry as a whole contributes about 17% to 18% of the India's GDP. As engines of development and vehicle of silent socio-economic revolution in the country, Indian banks have assumed new responsibilities in the fields of geographical expansion, functional diversification and personal portfolio.

The paper calls for adopting a multi-dimensional endeavour starting from preparation of questionnaire, data collection and subsequent analytics using analytical tools for information policy decisions. The study was carried out with the aim to study the comparative analysis of consumer preference between public sector and private sector banks/ housing finance companies for taking home loan. The paper also examined the satisfaction level of the customers who have availed Housing Loan for the construction of house/flat/renovation.

Design/Methodology/Approach: The primary data has been obtained by conducting a sample survey. Cronbach's Alpha reliability test was undertaken to evaluate the reliability of the questionnaire for the survey study. The analysis was performed using SPSS. The Cronbach's Alpha value thus obtained was 0.94(high value). Hence, the surveydata has been relied upon for exhaustive data analytics.

The surveydata was also viewed and categorised on vital parameters such as: age, gender and occupation of respondents.

- Age-wise: The data divided into four age groups: between the age of 18-30 years, between the age of 31-45 years (maximum response received), between 46-60 years and last age group of 61 years and above (minimum/only 1 response received)
- Gender wise distribution of the sample data: males (88% of the population), Females (12% of the population)
- Distribution of the occupation of respondents, majority (83.7%) worked in the Government/ Public Sector, 9.8% worked in the Private Sector and 5.4% were Professional/ Self Employed.

The secondary data collected from Annual Reports of National Housing Bank, Banks/HFCs Annual Financial Reports, Internet regarding financial performance of the lending banks in disbursing the housing loans during the observation time period in respect of Public and Private Sector Banks and Housing Finance Companies.

Descriptive statistics, Trend Analysis of home loan preference by various categories of consumers (Government Sector Employees, PrivateSector, Professional/Business-people) towards Public Sector/Private Sector Banks/HFCs for availing home loan, comparative analysis of home loan taken from Public Sector Banks/Private Sector Banks/Housing Finance Companies and reasons for opting Public/Private Sector Bank/ Housing Finance Company for availing home loan has been studied and analysed using modern analytical tools and techniques.

**Findings:** This result clearly shows first preference/liking of Public Sector Banks By the Government/Public Sector employees for availing home loan. About 81.8% of the persons employed under the Government/Public Sector preferred the Public Sector Banks for taking Housing Loan. Moreover, 66.7% of the persons employed under the Private Sector have also chosen Public Sector Banks.

Around 35.9% of the surveyed population considers 'Low Rate of Interest' as the criteria of choosing a particular Bank/ HFC for taking housing loan, whereas around 22.8% population availed housing loan from the Bank/ HFC with which they already had acquaintance and some professional relationship. Further, inference can also be drawn that the consumers prefer Public Sector Banks for taking loans considering credibility of providing lower rate of interest, transparency, low penalty and hidden charges.

The results also reveals that the Public Sector Banks are at par with the Private Sector Banks but the Housing Finance Companies are rather better in providing Housing Loan products and related services.

Finally, it clearly depicts that the Housing loan market is very competitive and mature in India.

Paper Type: View Point

KEYWORDS Population | Consumer | Housing | Loan | Data | Analytics

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# Introduction

The rising population and rapid pace of urbanization owing to the rural–urban migration offers huge untapped potential especially in affordable housing segment. According to Census 2011, 377.1 million Indians comprising 31.14 percent of the country's population lived in urban areas, which are projected to grow more than 600 million by 2031<sup>[11]</sup>

Housing constitutes a very significant part of the social and physical environment where the individuals grow and mature. Every citizen of India aspires to have a roof over his head i.e. his own sweet home and endeavours to fulfil his dream by availing home loan. Home loan is offered to a borrower to purchase or to build a new house on the basis of his/her eligibility and the bank's lending rules. Normally, 80% of property value is granted as the loan amount. The demand for home loans have increased manifold in the last two decades. There are number of housing finance companies and banks which offer cheap home loans i.e. at low interest rate. The home loan schemes offered by both public and private sector banks are very competitive. In recent years, the demand for home loans have surged immensely. The reason for this demand may be contributed to the changing mind set of the Indian youth due to globalization and integration with the developed economies, where mortgages rule the roost, income tax sops in the Union Budgets and substantial rise in the income-generating capacity.

There are number of banks and housing finance companies offering home loans at low interest rate. The home loan schemes offered by both public and private sector banks are very competitive. Mostly, people prefer public sector banks for home loans, especially because they believe they are more secure banks providing loan at lower interest rate. On the other hand, the private sector banks are also establishing themselves by providing reliable, competitive and prompt services and facilities to the consumers. They assist the consumers in familiarising with the terms related to Home Loans including the various types of home loans tailored to meet customer needs. This is driving the young population of the country towards the private sector banks for home loan purposes.

According to National Association of Home Builders, the housing industry as a whole contributes about 17% to 18% of the nation's GDP<sup>[2]</sup>. As engines of development and vehicle of silent socio-economic revolution in the country, Indian banks have assumed new responsibilities in the fields of geographical expansion, functional diversification and personal portfolio. Indian banking transformed itself from 'Class banking to Mass banking'. The banking system, the most dominant segment of financial sector, accounts for over 80% of the funds flowing through the financial sector.

The paper calls for adopting a multi-dimensional endeavour starting from preparation of questionnaire, data collection, compilation and its subsequent standardisation, use of analytical tools for its analysis resulting information generation for informed policy decisions. The study was carried out with the aim to study the comparative analysis of consumer preference between public sector and private sector banks/ housing finance companies for taking home loan. The paper also examined the satisfaction level of the customers who have availed Housing Loan for the construction of house/flat/renovation.

In this study, the primary data has been obtained by conducting sample survey, and the data thus obtained relied upon for analytical analysis to find the consumerspreference for Housing Loan among the various lending bodies. The secondary data regarding financial performance of the lending banks in disbursing the housing loans during the year 2017-18 & year 2018-19 in respect of Public and Private Sector Banks& Housing Finance Companies have also been exhaustively dealt.

# **Indian Banking Industry**

The origin of the Indian banking industry may be traced back to the establishment of bank of Bengal in Calcutta (now Kolkata) in 1786. The growth of banking industry in India may be studied in terms of two broad phases. Preindependence (1786-1947) and Post-independence (1947 till date). The Post-independence phase may be further divided into three subphases such as pre-nationalization period (1947-1969) Post nationalization period (1969 to 1991) and Post-liberalization period (1991 till date).

# 2.1 Banks and Housing Finance Companies providing Housing Loans[1]

The Banks/ Housing Finance Companies (HFCs) which provide housing loans to the individual borrowers to enable them to buy or construct a house are primarily from the following two sectors:

Types of Banks/ Housing Finance Co.



a. Public Sector Banks: Public Sector Banks are also known as Nationalized/Govt. banks in which majority stake is held by the Govt. of India viz. SBI, Bank of Baroda, Union Bank, UCO bank, Indian Bank etc. Besides these, there are Housing Finance Companies which are initially formed & promoted by the Public Sector Banks (PSBs) or

Govt. Institutions where management control, functioning and major policy decision are taken by the Public Sector Undertakings like LIC Housing Finance Ltd., PNB Housing Fin Ltd., Can Home Fin Ltd., GIC Housing Finance Co., to name a few. But over a period of time the promoter PSBs and FIs have sold stakes to the Foreign/ Indian Private Institutional Investors. Now the majority stakes of these PSBs/FI is less than 50% in these HFCs.

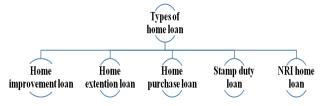
- b. Private Sector Banks: The private sector banks are also managed and controlled by private promoters and these promoters are free to operate according to the market forces. The interest rates of private banks are costly as compared to public sector banks. Examples of Private Sector Banks are HDFC Banks, AXIS Bank, ICICI Bank, IDFC Bank, Indus Ind Bank, to name a few.
- c. Housing Finance Companies: A Housing Finance Company is a company registered under the Companies Act, 1956 (1 of 1956) which primarily transacts or has as one of its principal objects, the transacting of the business of providing finance for housing, whether directly or indirectly. A HFC also requires registration with National Housing Bank (NHB) for commencing/carrying out the business of housing finance.

## National Housing Bank[1]

The National Housing Policy, 1988 envisaged the setting up of NHB as the Apex level institution for housing.In pursuance of the above, NHB was set up on July 9, 1988 under the National Housing Bank Act, 1987.The general superintendence, direction and management of the affairs and business of NHB vest, under the Act, in a Board of Directors.

# Types of Home Loan[1]

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# Housing schemes of Government of India:[5]

To keep pace with the rising housing demands in the country, the Indian government has encouraged special housing schemes which also provides financial support to the buyers of various sections of the society through interest subsidies on home loans. The central government has ambitious plans of providing affordable housing to people with motto "Housing for All by 2022" under 'Pradhan Mantri Awas Yojana'.

The following are the housing schemes introduced by the Government of India to help and benefit the homebuyers:

#### Pradhan MantriAwasYojana (PMAY) (Urban)

The PMAY was launched in 2015 and aims to deliver houses for the homeless by 2022. While the centre is offering assistance to all states and UTs, it also provides home loan interest subsidy to people who are buying their first home in urban areas. Under the scheme, the government will provide interest subsidy of three to four per cent for a home loan amount of up to Rs 9 lakh and Rs 12 lakh. So far, over 3 lakh homes under PMAY (urban) have been constructed against a target of 40.6 lakh by 2022.

#### • Pradhan MantriGraminAwaasYojana

Previously known as Indira AwasYojna, this scheme focuses on providing pucca houses with basic amenities to homeless families. The objective is to build one crore homes of 25 sqm by 2022. The government provides financial assistance by sharing the cost of construction with the state in the ratio of 60:40 in plain areas and 90:10 for north eastern and hilly areas. The cost for the unit assistance of Rs1.2 lakh is also provided to the beneficiary belonging to households without shelter, destitute/living on alms, manual scavengers, tribal groups and legally released bonded labour. So far, about 28.8 lakh homes have been constructed against a target of 1 crore by 2022.

#### Rajiv AwasYojna

Launched in 2009, the Rajiv AwasYojana (RAY) envisages a slum-free India and encourages State and Union Territories (UT) to bring all illegal constructions within a formal system. To increase the affordable housing stock under the scheme, the Centre has approved the Affordable Housing in Partnership (AHP) scheme to be part of the RAY. The scheme also provides support of Rs 75,000 per economically-weaker sections (EWS), Dwelling Units (DUs) of the size of 21 to 40 sqm. So far, over Rs 1,398 crore has been spent while nearly 46,000 houses have been developed under the scheme.

As per the annual report of National Housing Board, the total individual outstanding housing loans of all the Banks stood at Rs. 7,89,125 crore as on March 31, 2019. The individual housing loans disbursement during 2018–19 by the Banks was Rs.2,19,971 crore. This accounts for 15% increase in disbursement and a similar increase in the total outstanding over the last financial year. In terms of disbursements, majority of the growth was witnessed in the slabs of above Rs.25 lakh to Rs.50 lakh and above Rs. 50 lakhs.

Further, the total disbursements of housing loans to individuals have gone up by 3.0% in 2018-19 as compared

to 36.3 percent in 2017-18. Of the total housing loans disbursements, HFCs' loans upto Rs. 25 lakh constituted 42.1 percent in 2018-19 as compared to 44.2 percent in 2017-18. The disbursements of housing loans in the category of above 25 lakh have gone up by 6.9 percent in 2018-19 as compared to 38.8 percent in 2017-18.

With evident proactive measures and various other initiatives of the Government, the overall share of individual housing loans to GDP has increased from 0.7 percent in the year 1988–89 to 9.4 percent in the year 2018–19. In terms of amount, it has grown from around Rs.3,000 crore in the year 1988-89 to around Rs.18,00,000 crore in the year 2018-19. The graph below shows the growing percentage of outstanding housing loans to GDP.

Graph 5.3: Thirty Year Trend in Outstanding Individual Housing Loans of Banks and HFCs



Source: RBI and NHB

# **Research Objectives**

Increased level of awareness among the customers leads to increased preferences. The purpose of this study was to investigate the awareness and satisfaction level of customers towards various loans offered by the financial institutions. In the present research an efforts has done to measure satisfaction level of the customers by comparing various parameters that can impact the customers' satisfaction level. In this study, an attempt is made to identify various parameters affecting perception of the customers'w.r.t. the loan products and services.

The objectives of this study is to analyse the following using IT analytical tools:

- a. Trend analysis of preference of Public Sector/Private Sector Banks/HFCs for home loan
  - (i) Preference of Government Sector Employees
  - (ii) Preference of Private Sector Employees
  - (iii) Preference of Professional/ Business people
- Comparative analysis of home loan taken from Public Sector Banks/Private Sector Banks/Housing Finance Companies
- c. Study of reasons for opting Public/Private Sector Bank/ Housing Finance Company for availing home loan

# Literature Review

Nirmaljeet Virk &Prabhjot Kaur Mahal in their article "A Comparative Analysis of Public and Private Sector Banks in India" studied the expectations and level of satisfaction of customers towards the services rendered by public and private sector banks. Under public sector banks SBI, Punjab National Bank and Oriental Bank of Commerce were selected and ICICI, HDFC and AXIS banks were selected among private sector banks. Private bank managers are quite ahead of public sector banks in winning the customers' confidence and develop sustainable longterm relationship with their customers (2012).<sup>[8]</sup>

Ravi and KundanBasavarajanalysed the customer preference and satisfaction towards banking services offered by both private and public banks. The authors found that business and vehicle loans are fast moving than other services and overall satisfaction is around 50%. Further, overall consumer satisfaction on bank deposit schemes exhibited positive results while other banking services still need to be monitored and require urgent focus and improvements towards customer issues. The authors suggested that the bankers should work towards 100% customer satisfaction which in turn would foster customer contentment and would eventually assist in sustained customers base (2013).<sup>[7]</sup>

Natika. P. Jain, "A Comparative Analysis of Marketing of Banking Services in India with Special Reference to Private Vs Public sector Banks" made a comparative study based on the opinion of customers and bank employees (marketing staff) among the public sector banks and private sector banks. The banks selected for the study were SBI (Public Sector) and ICICI (Private). The findings of their study revealed that there is shift of customer base from SBI housing loan to ICICI. This research was also useful for other private sector and public sector banks in formulating their policies regarding the launch of new housing loans.(2013)<sup>[6]</sup>

**Gupta U and Sinha** examined factors influencing the purchase of home loan, such as, low rate of interest, easy accessibility, the status/reputation of the institution, scheme offered. They found that these parameters influence the selection of the housing finance institution by the prospective consumers (2015).<sup>[4]</sup>

# **Research Methodology:** [3]

Primary as well as Secondary data have been used for analysis purposes. Primary data has been collected by circulating survey forms/questionnaire. In this survey, 92 responses have been received from various respondents working in Public/Private sectors.

Cronbach's Alpha reliability test was undertaken to evaluate the reliability of the questionnaire for the survey study. The analysis was performed using SPSS. The Cronbach's Alpha value thus obtained was 0.94, which is



very close to 1 (High value). Therefore, based on the Alpha value, it could be concluded that the framed questionnaire and the responses are reliable, hence the questionnaire survey can be used for analysis purposes.

Further, the secondary data has been collected from the internet, Annual Reports of National Housing Bank, Banks/HFCs Annual Financial Reports, to name a few.

The survey result has been standardised, studied, analysed and the results have been displayed in the form of charts. The quantitative analysis has been comprehensively dealt using the analytical tools such as, Tableau, Excel, StatPlus and SPSS. The trend is also represented wherever applicable.

# Data Analytics and Observations: [9]

The Survey respondents were divided into four age groups:- between the age of 18-30 years (two responses received), second between the age of 31-45 years, in which maximum 60 responses were received, third age group of 46-60 years in which 30 responses receivedand last age group of 61 years and above, in which only 1 response was received. Further, out of total 92 responses received, 82 were male (88% of the population) and 11 responses were from women (12% of the population). The majority of the people who took the loan from the banks were males.

Regarding distribution of the occupation of responses, majority (83.7%) worked in the Govt./ Public Sector, 9.8% worked in the Private Sector and 5.4% were Professional/ Self Employed.

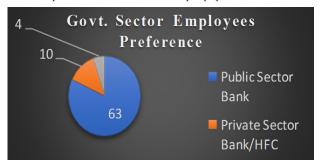
The study and analysis of the data (using analytical software) displays interesting results as discussed below:

# Trend analysis of preference of Public Sector/ Private Sector Bank/HFCs for home loan

• Preference of Government Sector employees

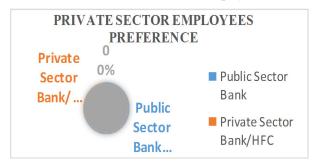
The following is inferred from the survey data:

 Out of 77 Government/Public Sector respondents 63 prefer taking Housing Loan from the Public Sector Bank which comprises around 81.8% of sample population.



ii. The reason was the high creditability of the Public Sector Banks.

# Preference of Private Sector Employees



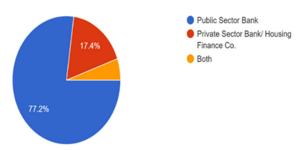
It is observed that out of nine Private Sector salaried persons, six employees have chosen Public Sector Bank for taking Home loan. This is 66.7% of the population of the private sector employees.

# • Preference of Professional/ Business people



The Professional/ Business people display mixed preference. Forty percent each have opted for Public Sector Bank as well as private Sector Bank/HFC.

However, only 2% have given their preference for both.

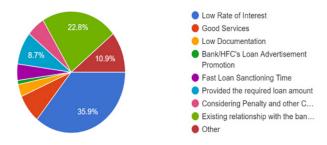


# Comparative analysis of Home Loan Taken from Public Sector Bank/Private Sector Bank/Housing Finance Company:

The survey result w.r.t. to the option whether home loan availed from Public Sector or Private Sector or HFCs exhibits the following results:

- 77.2% of respondents preferred to take loan from Public Sector Banks.
- 17.4% respondents preferred to avail home loan from Private Sector Bank/ Housing Finance Company.

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iii. Only five number of respondents have taken home loan from both Public and Private Sector Banks/HFCs.

# Reasonsfor optingPublic/Private Sector Bank/ Housing Finance Company for availing housing loan:

- The following is observed:
- It shows that around 35.9% of the population gave due preference to the rate of interest. Further, itdepicts that most of the consumers preferred Low Rate of Interest for obtaining house loan from Public Sector Banks.
- ii. It represents that around 22.8% respondents choose to avail home loan from the bank with which they already had cordial professional relationship.
- iii. Though the general feel of the consumers is that the Private Sector Banks/FI provide better service, low documentation process and fast loan sanction but the survey result depicts that all together only 14 respondents have given due consideration to these parameters while taking housing loan.

# Conclusion

This study clearly represents the first preference/liking of the Government/Public Sector employees to take home loan from the Public Sector Banks. Around 35.9% of the surveyed population considers 'Low Rate of Interest' as the criteria of choosing a particular Bank/ HFC for taking housing loan, whereas around 22.8% population availed housing loan from the Bank/HFC with which they already had acquaintance and some professional relationship.

The study reveals that the Public Sector Banks are at par with the Private Sector Banks and Housing Finance Companies and somewhere better in providing Housing Loan products and related services.

About 81.8% of the persons employed under the Govt./ Public Sector preferred the Public Sector Bank for taking Housing Loan. Moreover, 66.7% of the persons employed under the Private Sector have also chosen Public Sector Bank for taking Home loan. From this an inference can be drawn that the consumer prefer Public Sector Banks for taking loans considering credibility of providing lower rate of interest, transparency, low penalty and hidden charges.

Finally, it clearly depicts that the Housing loan market is very much competitive and mature in India.

# **Recommendations:**

- Banks/ Housing Finance Companies should provide housing loans and related services at prevailing lowest rate of interest to all the consumers without any discrimination & disparity.
- b. Banks should maintain healthy relationship with the existing customers so that in case of any loan requirement the consumer prefer their bank for housing loan. This would provide customers to the banks without any extra expenditure on advertisement and publicity.
- c. Banks/HFCs should focus on the quality of products and services to all customers of the bank so that the existing customers are retained and they prefer the same Bank/HFC for future loan requirements.
- d. Banks/HFC's should provide customer support services from the benefits they get out of loan they borrowed.
- All Banks/ HFCs should provide efficient loan related services like minimum required documentation, faster loan processing etc.
- f. The last but not the least, all loan implications like fees, charges, penalties etc. should be informed to the customer at the preliminary stage itself to avoid any confusion or later dispute. This would enhance the credibility and transparency of the Bank's/ HFC's functioning which would ultimately lead to enhanced financial performance.

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The Editorial Board had used the Urkund – a Swedish anti-plagiarism software tool which is a fully-automatic machine learning text-recognition system made for detecting, preventing and handling plagiarism and trusted by thousands of institutions across worldwide. Urkund is GDPR compliant with privacy by design and an uptime of 99.9% and have trust to be the partner in academic integrity. https://www.urkund.com] tool to check the originality and further affixed the similarity index which is {08%} in this case (See below Annexure-I). Thus, the reviewers and editors are of view to find it suitable to publish in this Volume-13, Issue-3, July-Sep, 2021

## Annexure 1

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**Urkund Analysis Result** 

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Submitted: 13/11/2021 10:20:00 PM Submitted By: nagrawal@nifm.ac.in

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Sources included in the report:

Instances where selected sources appear: 0

Reviewers Memorandum

**Reviewer's Comment 1**: Housing constitutes a very significant part of the social and physical environment where the individuals grow and mature. The study reveals that the Public Sector Banks are at par with the Private Sector Banks and Housing Finance Companies and somewhere better in providing Housing Loan products and related services considering credibility of providing lower rate of interest, transparency, low penalty and hidden charges.

**Reviewer's Comment 2**: The study is structured in a well appropriate manner. Data is presented with appropriate graphs and tables and is obtained from reliable sources. Though the study is supported with the review of past literature, some more recent studies could be added to further strengthen the quality of the work done.

Reviewer's Comment 3: The study has used both primary and secondary data, which makes the results more reliable. The primary data has been obtained by conducting a sample survey. Whereas, the secondary data regarding financial performance of the lending banks in the housing loans during the year 2017-18 & year 2018-19 in respect of Public and Private Sector Banks & Housing Finance Companies is undertaken



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The article has 08% of plagiarism which is the accepted percentage as per the norms and standards of the journal for the publication. As per the editorial board's observations and blind reviewers' remarks the paper had some minor revisions which were communicated on a timely basis to the authors (Namrata and Disha) and accordingly all the corrections had been incorporated as and when directed and required to do so. The comments related to this manuscript are noticeably related to the theme "Study of Consumer Preference w.r.t. Home Loan using Data Analytics" both subject-wise and research-wise. The study undertakes the comparative analysis of consumer preference between public sector and private sector banks/ housing finance companies for taking home loans. The paper also examines the satisfaction level of the customers who have availed Housing Loan for the construction of house/flat/renovation. Overall, the paper promises to provide a strong base for the further studies in the area. After comprehensive reviews and editorial board's remarks the manuscript has been categorized and decided to publish under the "View Point" category.

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