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IMPACT OF INTEREST RATE FLUCTUATIONS ON LOAN REPAYMENT IN THE BANKING SECTOR

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Abstract: **In the banking sector, interest rate changes have a big impact on how loans are repaid. Understanding the impact is essential for evaluating financial stability, managing risk, and creating productive interactions with customers. In order to reduce the risk of by default, maximize profits, and maintain stable loan portfolios, banks need to examine these variations. In addition, governments depend on this understanding to decide on economic policies and rules with assurance. If everything is considered, understanding how interest rate changes affect loan repayment is essential for maintaining financial flexibility and effective risk management in the banking sector**

Keywords: **Interest rates, Loan repayment, Banking sector, Risk management**

I. INTRODUCTION

Interest rate fluctuations have a significant impact on loan repayment in the banking sector. Variable interest rates influence lenders as well as borrowers in the current dynamic economic environment, which is shaped by market forces, inflation, and central bank policies. This affects the cost of borrowing, bank profitability, and stability of the economy. The present study looks into these impacts, emphasizing the obstacles and prospects that affect borrowers, lenders, and the overall economy.
The credit risk of banks is greatly impacted by changes in interest rates. When interest rates are increasing, borrowers with variable-rate loans may find it difficult to make their payments, which raises the risk of default. Because of this increased credit risk, banks need to evaluate borrower creditworthiness and minimize possible losses by using efficient risk management techniques and modifying lending processes. Effective interest rate risk management requires a thorough understanding of how interest rate changes interact with loan repayment dynamics and the broader economic environment.

1.1 Need/Importance of the topic:

- Understanding how interest rate fluctuations impact borrowers' ability to afford loan repayments is crucial for addressing financial risks and ensuring sustainable lending practices in the banking sector.
- Assessing the relationship between interest rate changes and borrowers' financial stability can help banks identify and manage risks associated with loan defaults, thus safeguarding their loan portfolios and overall financial health.

1.2 The theoretical implication of the topic:

- Due to the time value of money principle, rising interest rates make borrowing more expensive. This has an impact on loan amortization schedules, borrowers' ability to repay debt, and their financial strategies.
- Since higher rates can increase the risk for borrower default and demand for stronger risk management and credit assessment procedures, variable interest rates force banks to modify their credit risk models.

II. REVIEW OF LITERATURE

Ashish Garg and Abhijit Banerjee's 2002 study, which was published in the Review of Economic Studies, examines the effects of interest rate changes on household loan repayment in India's various economic and geographic divisions. Higher interest rates dramatically raise the risk of loan default, especially for lower-income households, according to the research, underscoring their susceptibility to fluctuations in the economy. Richer households get the most from lower interest rates, which on the other hand increase payback rates. The results highlight the significance of enacting monetary policies that take into account the various effects of interest rate changes on various income levels in order to maintain financial stability and safeguard the most economically disadvantaged.
The IOSR Journal of Business and Management published a study in 2018 by A. Murty and E. Roshma Chowdary that looks into how interest rate fluctuations affect the profitability of nationalized banks in India. The study finds a substantial association between changes in central bank policy rates and important profitability metrics such net interest margin, return on assets, and return on equity using empirical methodologies and statistical analysis. The results show that because there is a greater difference between lending and deposit rates, higher interest rates typically increase profitability. The study indicates that precise interest rate adjustments are essential for preserving stability and efficiency in the banking industry and emphasizes the

significance of meticulous interest rate management by policymakers and bank executives to increase profitability.

Jonathan Sichinga's 2020 study, which was released by Cavendish University, looks at how interest rate changes affect loan repayment for several loan categories (car, personal, and home loans) as well as economic cycles. According to the research, higher interest rates raise the chance of default, especially for unsecured loans like personal loans where payback obligations are heavier. cut interest rates, on the other hand, make loans more accessible, which lessens the stress of repayment and may even cut the default rate. In order to preserve financial stability and loan performance stability under a range of economic circumstances, the study emphasizes the significance of taking interest rate factors into account when making lending decisions and suggests that financial institutions incorporate interest rate risk assessments into their credit risk management procedures.

The 2022 study by Abdul Sayid Bakar and Muhammad Wan Rasheed examines how interest rates affect loan repayment in Malaysian microfinance institutions. It was published in the Journal of Finance and Accounting. It demonstrates how higher interest rates have the power to discourage would-be borrowers and raise the likelihood of default for those from low-income backgrounds. Lower rates, on the other hand, can encourage borrowing but must be weighed against the operational and financial stability requirements of microfinance institutions. The study also takes into account other variables like the state of the economy, the regulatory landscape, and the characteristics of the borrower, like their income and level of financial knowledge. The results emphasize how crucial it is for microfinance companies to carefully choose interest rates in order to facilitate financial inclusion for Malaysia's marginalized populations and maintain efficient loan recovery.

III. RESEARCH METHODOLOGY

3.1 Statement of the problem

The purpose of this study is to examine the impact of interest rate fluctuations on borrowers' loan repayment ability. It also looks at how data and central bank policies affect interest rates and loan repayment deadlines. It also looks into the possibility of a relationship between changes in interest rates and loan defaults. Additionally, it looks at ways banks can reduce the negative impact that fluctuating interest rates do to their loan portfolios.

3.2 Research gap:

Current studies lack detailed analysis of how interest rate fluctuations affect loan affordability across different borrower profiles and loan types. There's limited understanding of how macroeconomic factors influence loan repayment dynamics and the correlation between interest rate volatility and default rates. Furthermore, empirical evidence on the effectiveness of banks' strategies to reduce the adverse effects of interest rate fluctuations on loan portfolios is lacking. Addressing these gaps can provide valuable insights for stakeholders in the banking sector.

3.3 Research objectives

- To examine the specific mechanisms through which interest rate fluctuations impact loan repayment dynamics in the banking sector.
- To assess the financial stability of borrowers and their ability to meet loan obligations among varying interest rates.
- To analyze the effectiveness of strategies employed by banks in reducing the adverse effects of interest rate fluctuations on loan portfolios.

3.4 Scope of the study

The study's focus will be on how interest rate changes impact the way that banks manage loan repayments. It will look into multiple loan forms within diverse financial conditions, such as business, personal, and home loans. Understanding the complex effects of interest rate changes on loan repayment patterns must take into consideration a wide range of factors, including borrower statistics, loan conditions, and regulatory constraints. In order to help banks and policymakers manage risks and improve lending procedures in reaction to interest rate fluctuations, the study attempts to provide insights.

3.5 Sources of data

- The study primarily focuses on relevant primary data which has been obtained from the following sources –
- Ruthvik Financial Solution's services were comprehensively understood through the mix of qualitative and quantitative approaches.
- Direct customer insights regarding the interest rate fluctuations while repayment of loan by Ruthvik Financial Services were collected through the primary data collection method, which involved the use of Google Forms. It is quite helpful to understand the wants and preferences of clients to get this direct feedback.
- Ruthvik Financial clients were the target audience, and the probability sampling procedure guaranteed that the sample closely reflected them. The results can be confidently extrapolated to a broader population using a sample size of 100 and a straightforward random sampling technique.
- The Chi-square test was employed to enable thorough statistical analysis and the investigation of correlations and dependencies among variables. Ruthvik Financials was able to enhance its financial services offerings and client happiness by using the actionable insights and meaningful interpretations made possible by the clear

overview of the data offered by the descriptive statistics.

3.6 Limitations of the study:

- The difficulties of expanding results to various loan kinds and borrower profiles.
- Effective research may be complicated by the inaccuracy and limited availability of data.
- Due to variability problems, establishing correlation between changes in interest rates and loan repayment is difficult.

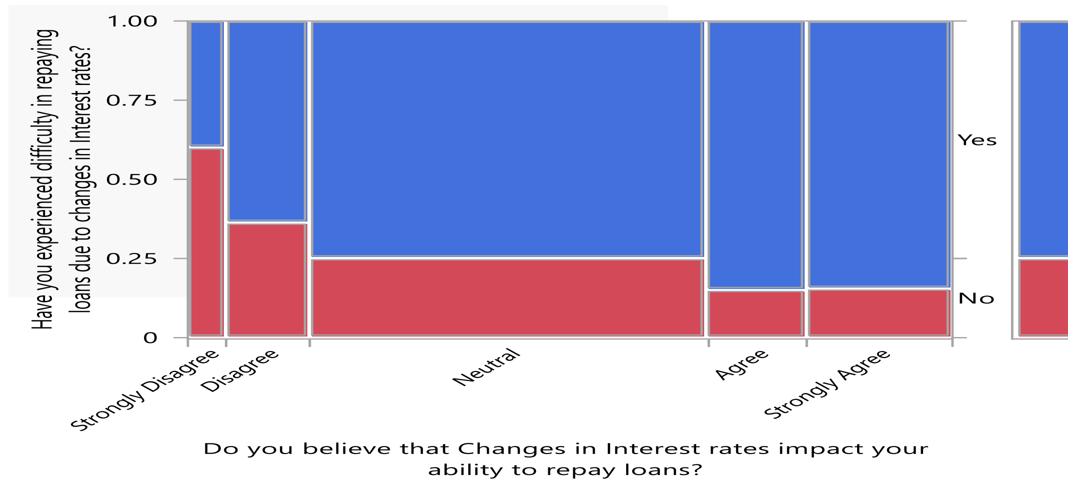
IV. ANALYSIS AND DISCUSSION

4.1 Hypothesis:

- Null Hypothesis (H0): There is no significant relationship between interest rate fluctuations and the affordability of loan repayments for borrowers in the banking sector.
- Alternative Hypothesis (H1): Interest rate fluctuations have a significant impact on the affordability of loan repayments for borrowers in the banking sector.

a. Affordability of loan repayments for borrowers in the banking sector is a dependent variable
b. Interest rate fluctuations is aindependent variable

Mosaic Plot



N	DF	-Log Like	R Square (U)
100	4	2.5484456	0.0453

Test	Chi Square	Prob>ChiSq
Likelihood Ratio	5.097	0.2775
Pearson	5.525	0.2375

4.3 Analysis

The analysis aimed to investigate the relationship between changes in interest rates and the difficulty experienced by borrowers in repaying loans. However, the results indicate no significant association. Both the Likelihood Ratio test **(p = 0.2775)** and Pearson chi-square test (p = 0.2375) yielded **p-values greater than 0.05**, suggesting no clear link between interest rate fluctuations and loan repayment difficulties. Therefore, **we fail to reject the null hypothesis**, indicating that changes in interest rates may not have a substantial impact on the ability of borrowers to repay loans in the banking sector based on the variables analysed.

V. CONCLUSIONS

In conclusion, this study gives helpful insights into how changes in interest rates affect repaying loans at banks. It shows that people need to understand these changes better. Different people have different ideas about how loan repayments should work when interest rates change. It's important for banks to communicate clearly about this. Overall, the study suggests that banks should help people more and give them better information to manage their loans well when interest rates change.

VI. REFERENCES:

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