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LEADING SMALL FINANCE BANK IN INDIA HAS ACHIEVED A 40%-50% REDUCTION IN TIME & EFFORT FOR CREDIT RISK ASSESSMENTS WITH AHANA'S AUTOMATED DATA ANALYSIS SOLUTION

Financial institutions depend on precise credit risk assessments, yet traditional methods rely heavily on manual evaluations and static bureau data. This outdated approach is not only slow and labor-intensive but also prone to inconsistencies, leading to missed opportunities and increased loan defaults.

This case study explains how Ahana's Loan Default Prediction Solution can overcome these roadblocks by implementing advanced data analytics technologies with artificial intelligence and machine learning models.

Client Profile

Our client is a leading small finance and cooperative bank in South India, serving a diverse customer base across Chennai and other regions, focusing on financially underserved communities. Their commitment to inclusive banking makes accurate credit risk assessment crucial for sustainable growth.

The Challenge

The client faced delays in evaluating creditworthiness due to reliance on bureau data. Key challenges included:

- **Incorrect Decisions:** Traditional methods resulted in poor data assessment, increasing loan defaults and approvals for high-risk borrowers. Manual evaluations lacked consistency, leading to subjective decision-making.

- **Credit Risk Exposure:** Unpaid loans disrupt cash flow, requiring better borrower assessment to minimize financial losses. Without accurate risk prediction, financial stability remained uncertain.

- **High Default Rates:** NPAs increased due to loan repayment failures, negatively impacting the bank's profitability. Identifying early warning signs was challenging with conventional assessment techniques.

Our Approach

Ahana experts conducted a detailed analysis and developed a structured solution.
Key steps included:

- **Data Collection & Preprocessing:** Gathering and organizing raw data from multiple sources to enhance accuracy. Ensuring data completeness and removing inconsistencies were essential for model performance.

- **Exploratory Data Analysis (EDA):** Identifying patterns and trends to refine predictive models. Understanding borrower behavior and risk factors helped create more reliable assessment criteria.

- **Feature Engineering:** Selecting relevant features to improve model accuracy and performance. Effective feature selection contributed to better differentiation between high-risk and low-risk borrowers.

- **Model Selection:** Evaluating various machine learning models, including Random Forest and SVM, to find the best fit. Each model was tested for accuracy and precision to optimize predictions.

- **Model Training & Retraining:** Refining models through iterative learning to enhance decision-making. Continuous learning helped the system adapt to new patterns in borrower behavior.

- **Model Evaluation:** Ensuring high accuracy using key performance metrics like False Positives and True Negatives. Regular evaluation maintained the reliability of risk assessments.

Ahana's Solution

We developed an automated loan default prediction system to streamline risk assessment and minimize manual intervention. The system integrates seamlessly with loan application systems for real-time data aggregation.

- **Predictive Modeling:** Uses AI models to enhance accuracy in default predictions. Machine learning algorithms analyze historical data to identify default risks.

- **Customer Identity Verification:** Ensures compliance with KYC regulations and fraud prevention measures. Automated identity checks reduce the chances of fraudulent loan applications.

- **Credit Scoring and Analysis:** Assesses credit risk based on borrower history, income patterns, and spending habits. The system generates credit scores that align with industry standards.

- **Automated Underwriting Decisions:** Ensures consistent loan approvals and rejections based on predefined criteria. Reducing subjectivity in underwriting minimizes potential biases.

- **Compliance & Auditing:** Integrates regulatory checks throughout the process to reduce legal risks. The system ensures that loans meet all financial and compliance standards.

The Impact

The implementation of Ahana's Loan Default Prediction solution resulted in multiple benefits:

- **Automation of Manual Efforts:** Risk assessments that took weeks were completed in just a few hours. This transformation significantly improved operational efficiency and decision-making speed.

- **Reduced Dependency on Manual Expertise:** AI-driven decision-making reduced reliance on human intervention by **40%-50%**. The automation helped maintain consistency and removed human errors in assessments.

- **Improved Credit Risk Prediction:** Reduced reliance on bureau data by **40%-50%**, leading to higher accuracy in NPA estimations. This improvement enabled better risk mitigation and financial stability.

Conclusion

Automating credit risk assessments enhances accuracy and reduces loan defaults. Ahana's solution enabled Leading Small Finance Bank in India to make data-driven lending decisions, improving overall financial stability. By leveraging AI, the bank can proactively identify and mitigate loan default risks.

About Ahana Systems and Solutions

Ahana Systems & Solutions is a leading IT services provider specializing in Digital Transformation. Our expertise spans Cloud Computing, RPA, Database & Data Warehousing, BI & Analytics, and Application Development. With 100+ clients worldwide, we deliver cutting-edge automation solutions.

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