



**IMPLEMENTED A SCIENTIFIC SOLUTION TO
UNDERWRITE GOLD LOANS FOR A CENTURY OLD BANK.**

CASE STUDY

A CASE STUDY ON AI-DRIVEN CREDIT UNDERWRITING SOLUTION



One of the oldest banks in India with a history of over 100 years, offering a wide range of banking services, deposits, loans, saving/current accounts, wanted an intelligent technology solution to transform the current underwriting approach for their gold loans.

The bank's objective was to reduce the dependency on manual underwriting of gold loans and implement a scientific approach to improve risk assessment accuracy with deeper insights for their existing and new potential borrowers.

PROBLEM STATEMENT

The bank operates from more than 750 branches and provides a wide range of loan products to service the financial needs of small individual customers and large industries. And one of the loan products is a gold loan.

For a gold loan, the bank lends money to a borrower by pledging their gold articles as collateral. And based on the current market value and quality of gold, the loan amount is provided.

According to our client, the critical challenge that the bank faced was to identify the right set of creditworthy borrowers and defaulters. Before reaching out to us, the bank's risk assessment was solely based on the hands of a branch manager, who evaluates the customer risk appetite based on documents, jewel, and financial status.

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PROBLEM STATEMENT

Adding, the bank did not provide any additional benefits to loyal and good credit-worthy borrowers. Also, no risk premium was added to loan defaulters. Instead, the bank just offered a plain vanilla interest percentage to both ideal borrowers and loan defaulters.

Again, in the case of a top-up loan, the customer must be physically present in a branch, where the decision to provide a top-up loan was solely based on a manual risk assessment by a bank manager.

To overcome these challenges, the client wanted a very scientific solution that can help them improve their risk assessment accuracy and speed up their operations by cutting down the time-to-yes.

BUSINESS GOALS



Mitigating credit risk and bias between borrowers



Predict interest rates based on risk assessment



Provide faster credit decisions



Streamline and standardize all manual processes



Role-based access to all stakeholders



Anytime-anywhere information access

SOLUTION



The data scientists of Zuci initiated this project by understanding the existing loan approval workflow and the various business challenges in the loan cycle to define the success metric beforehand.

With this information, our data engineers collected all the relevant data fields required to help determine a good borrower from a defaulter and fed them into our home-grown credit underwriting solution for feature extraction.

Zuci's AI-driven credit underwriting solution, HALO, analyzed this fed data and extracted patterns and behaviors. These patterns were then automated and were brought in the correct form to attain data integrity.

After repeated data cleansing, HALO's machine learning algorithm created a unique credit underwriting model that exploits these patterns and behaviors to identify high-risk and creditworthy borrowers when underwriting a new customer.

Finally, the model was continuously trained to attain the highest accuracy in predicting credit risk for a gold loan before deployment in the bank's environment.

HOW ZUCI SYSTEMS HELPED?



Our team started with a discovery phase by conducting a 3-day workshop with the stakeholders



Understood overall requirement, end-to-end loan life cycle, challenges, and business goals



Post-discovery phase, the bank provided a sample set of customers with the pre-defined data fields for creating a sample model



With API calls, our team of data engineers fed the sample set into HALO for data analysis, feature extraction and curation, and finally built an underwriting model



Presented a demo to all stakeholders with all the necessary KPI's and addressed all questions from stakeholders

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HOW ZUCI SYSTEMS HELPED?



Predicted good borrower and the bad ones by scoring the sample set customers and post all the stakeholders were satisfied, the bank provided a more extensive sample set of banking customers to train the model for better accuracy further



Once approved and stakeholder feedbacks were addressed, our team deployed HALO to the bank's production environment



Provided HALO product documentation (including a system administration guide), 24/7 product support, oversight for production rollout, and post-production support to ensure successful business adoption

BUSINESS OUTCOME

10x
faster loan approvals

100%
transparency in the
loan approval process

22%
increase in loan applications

65%
reduction in risk assessment
effort (equivalent to 800 FTEs)

9%
decrease in delinquencies

ROI realized in
4 months



WANT TO MITIGATE RISK AND BIAS WITH AI-DRIVEN CREDIT UNDERWRITING? HALO CAN HELP!
DROP US YOUR EMAIL, AND OUR EXPERTS WILL GET IN TOUCH.

Get Started with HALO →



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