HingiCredit

A Big Data Driven Credit Risk Analysis System for Ugandan Farmers

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HingiCredit is a name that is derived from one of the traditional languages in Uganda. 'Hingi' is derived from 'Omuhingi', a bantu word that means farmer,

PROBLEM STATEMENT

Extending credit to farmers in Uganda is considered risky by financial institutions due to the many unpredictable factors that agriculture output.

Financial institutions often use ineffective mechanisms to evaluate the credit risk associated with lending to farmers since they do not consider all the relevant data factors that affect agriculture thus making them ineffective.

Farmers miss out on credit and the benefits that come with accessing such funds when their credit risk is determined using such ineffective methods.
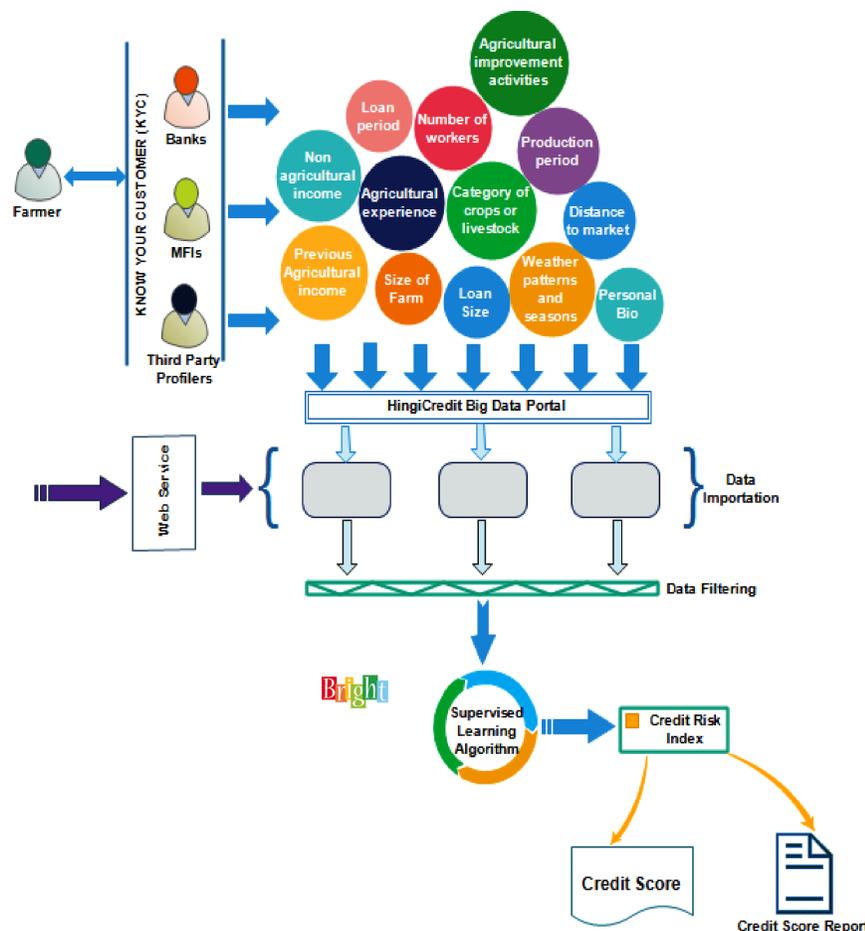
OBJECTIVES

OVERALL OBJECTIVE: To develop an automated credit risk analysis system that will assess and profile credit worthiness of farmers.

Specific Objectives
- Gather and analyze relevant data.

- Use the analyzed data to develop a work-flow to aid in developing a credit risk analysis model.

- Obtain data sets, train, test and evaluate the credit analysis model's accuracy.

- Publish the trained model as a web service.

- Create a Web-based dashboard

WORKFLOW

BUSINESS CASE

1. **Pay-per-Use model.** Here a fee will be levied for every loan application processed through HingiCredit system which will provide a web application that will be publicly accessible by any financial institution and every application submitted will be paid for.

2. **SaaS Subscription Model.** Financial institutions will sign a renewable subscription contract to use the cloud-based service for a given period. The contracted institutions will submit farmer loan application data through a web application or through their integrated core banking system (using web service) for analysis. The institutions will retrieve risk scores and risk score reports for the submitted loan applications

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EXPECTED BENEFITS

❑ Farmers will able to get the requested loans under fair and favorable terms and conditions hence increasing the ability to be banked.

❑ Farmers will get tailored loan products that will suit their production processes

❑ Automated risk profiling will reduce on the amount of time the banks and other financial institutions take to advance loans to farmers

❑ It will help in the extension of loans to previously unbanked farming households and thus improve on household incomes.