

HALO

Empowering Lenders with Artificial Intelligence

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LOAN APPLICATION FORM
About You
and postcode

APPROVED
FORM

Ref No:

Member number
Previous address

Council Housing Association /
Living with Partner
dependants
insurance

Why HALO?



LENDER CHALLENGES

Underwriting

Unlike large financial institutions, a major challenge for lenders

Most lenders say overall losses within acceptable range but wants to price the risk at the top of the funnel to grow the market.

As a result they:

- Buy leads and make loans for applications they shouldn't
- Pass on leads for applicants they should



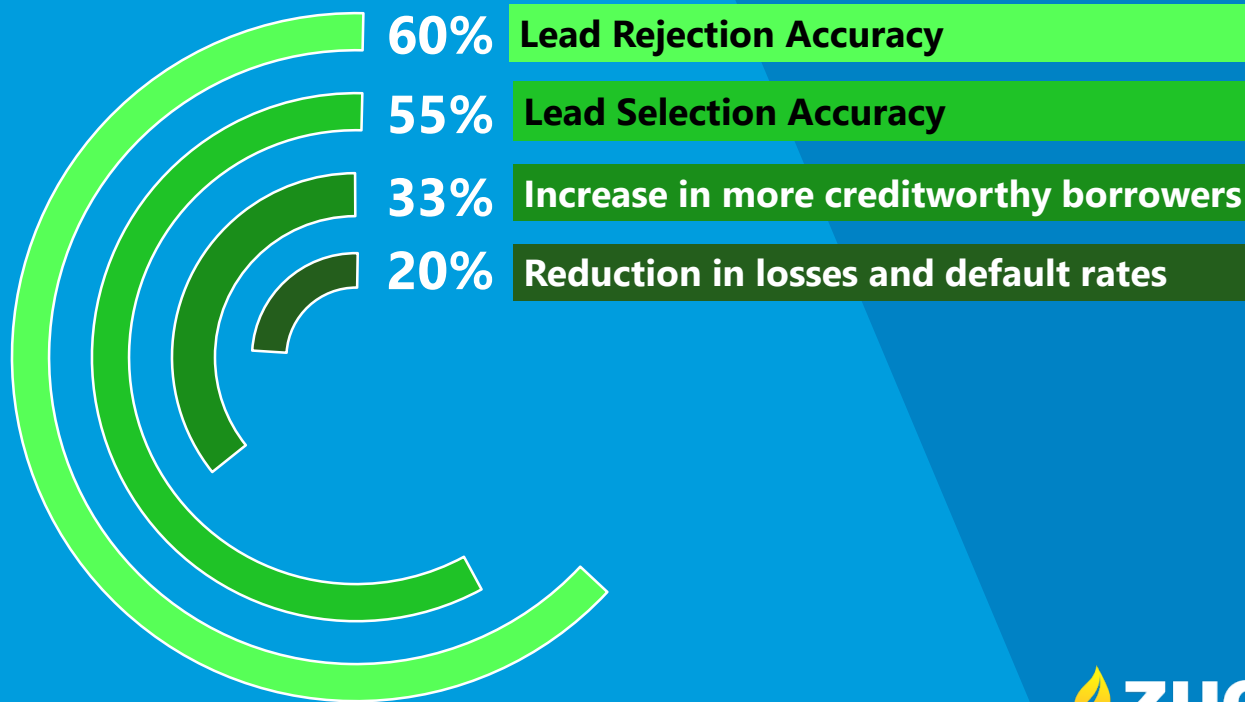
OUR SOLUTION

HALO

- A machine learning based scoring model that helps in eliminating bad leads and approve good leads based on past data
- Helps lenders fund the right merchants and less of the wrong ones
- Consumes "Big Data" that includes credit reports, bank statements and other data
- Builds a scorecard that self trains and improves based on a number of factors

HALO – What it offers

HALO – HEURISTICALLY PROGRAMMED ALGORITHMIC OUTPUT
A 360* SOLUTION FOR YOUR UNDERWRITING NEEDS



Sample Data

Application Source



Number of times same "lead" encountered

Inputs self-provided by the applicant
(Comparison with the actual data lenders get
on credit reports & bank statements etc.)



Demographics (Geography, Industry, Age, etc.)

Attributes received from the alternative
credit score (Inputs from other systems)



Attributes received from fraud score

Cash flow and transactions from applicants bank
statements (Decision Logic and/or other APIs)



Choice the applicant makes as to amount,
term and payment

Type of bank account
(Business or Personal)



Type of business entity (LLC, Corp, Sole Prop etc.)
Issue Time of Business Tax ID

**All this contribute in
determining the actual payment performance of
the merchant to whom the loan was issued**

SCORECARDS

GAN (Generative Adversarial Network) : Outcomes Expectation

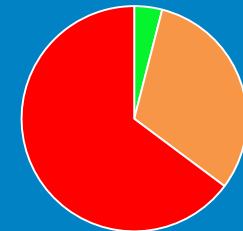
Lead to Prospect (Algorithm 1)	Prospect to Customer (Algorithm 2)				<div>Good</div> <div>Poor</div> <div>SA - Strong Accept</div> <div>A - Accept</div> <div>R - Review</div> <div>SR - Strong Reject</div>
	SA	A	R	R	
	SA	A	R	R	
	R	R	SR	SR	
	R	R	SR	SR	
	R	R	SR	SR	
	<div>Good</div> <div>Poor</div>				

Algorithm 1 (Lead to Prospect) Outcomes

Zuci Algorithm Result – 1000 Customers

	164	18	23	47	748
Approved	2	0	0	1	10
Pending	63	9	7	20	274
Collection	0	0	1	2	5
Declined	38	5	6	10	216
Withdrawn	61	4	9	14	243

Outcome



- Accept
- Review
- Reject

HALO – HOW IT WORKS

Learning Based (Non-Rule): Decision is not rule based, thus making system adapt to changing situations over a period

Third Party Integrations: Can establish connections to any third-party data sources

Continuous Learning Models: Models are generated with change in customer and decision data in an unsupervised fashion

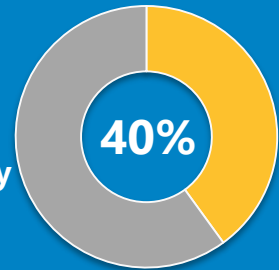
Instant Processing: Decisions are generated real-time or batch processes, with comprehensive audit trails

API Based Integration: Can easily connect to underwriting workflows or LMS / LOS Systems via API endpoints

POWER YOUR LEAD AND UNDERWRITING WORKFLOW

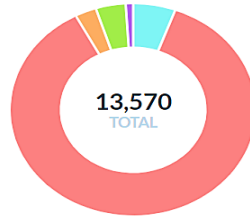
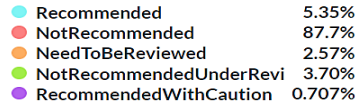
Heuristically Programmed Algorithmic Output (HALO) helps financial institutions in improving their lead identification and underwriting efficiency process.

Improvement in
Underwriting Efficiency

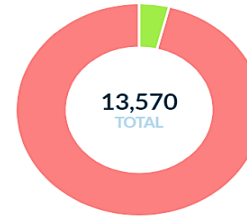
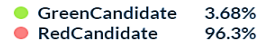


HALO – HOW IT WORKS

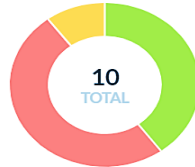
Zuci Classifier Results



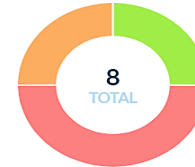
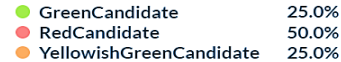
Lead Result



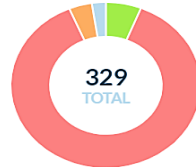
ApprovedCustomers Accuracy



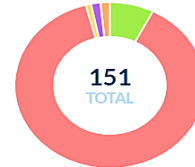
IrregularCustomers Accuracy



UnprocessedCustomers Accuracy



DeclinedCustomers Accuracy



HALO - Other Features

Provides Handyman features for all Data-centric problems, be it configuration, integration or management console



Manages Data



Native Language Support



Configuration



Optimizes ROI



Management Console



Access To Multiple Data



Data Friendly Environment



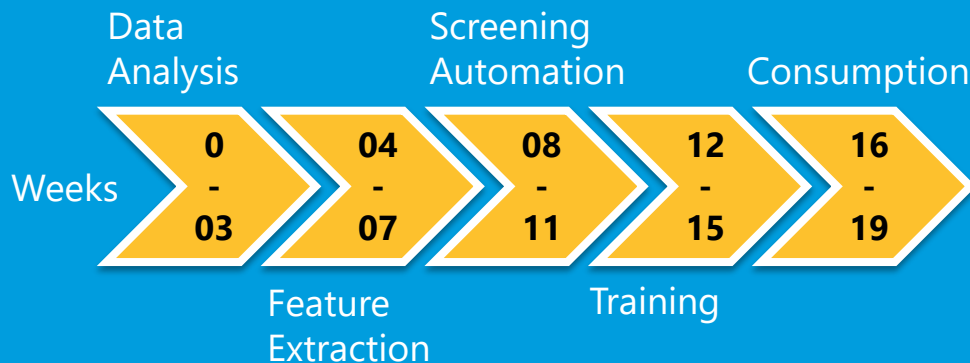
One Stop Key Solution



Time Saver



HALO - Implementation Timelines and Outcomes



1. Data Analysis
 - Data Sourcing
 - Data Cleansing
 - Data Analysis
2. Feature Extraction
 - Parameters Review
 - Parameters Consideration
 - Parameters Selection
3. Screening Automation
 - Application Screening Rules
 - Rules Engine
 - Automate Application Screening
4. Training
 - Create Model
 - Set Score Threshold
 - Generate predictions
5. Consumption
 - Consumption using API/UI
 - Analytics on overall efficiency

HALO – Milestone based Pricing Model

Competitor Analysis – **40%** Better Cost | Improved Efficiency

\$ 7,200

Timeframe
End of 3 weeks
20% of Total Cost

\$ 7,200

Timeframe
End of 7 weeks
40% of Total Cost

Feature Engineering Showcase

\$ 14,400

Timeframe
End of 15 weeks
80% of Total Cost

\$ 7,200

Timeframe
End of 19 weeks
100% of Total Cost

Total Cost - \$ 36,000

Hosting Charges, Scope Changes, Other Charges - NA



Customer Testimonial

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At its core, Zuci's underwriting solution HALO (Heuristically programmed Algorithmic Output) helps us in two areas - eliminating bad loan applicants, and identifying good loan candidates.

The HALO solution is set up to learn on its own, without the need for manual adjustment to the rules. Zuci's team built this model based on lead, applicant and consumer historical data with the ability to self-train and re-train itself based on any updated data received by the system.

As Zuci explained, this system uses a Generative Adversarial Network, a class of machine learning systems that has helped significantly improve lead rejection accuracy and lead selection accuracy within 6 months of implementation. We are confident that HALO will continue to provide us with significant improvements over time.



James C. Jacobson
President at First Financial Service Center



Thank You

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