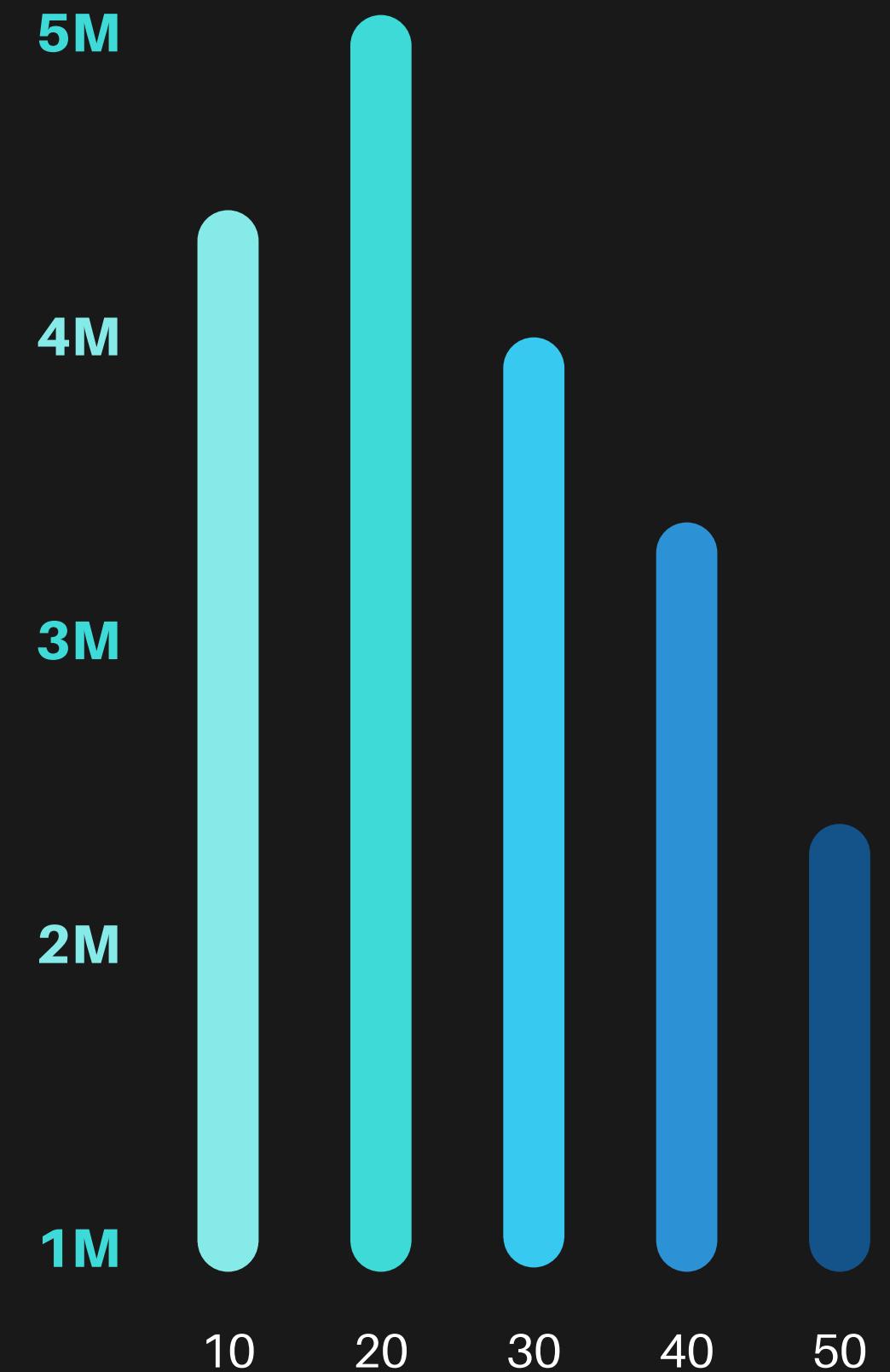


LENDSMART

CREDIT RISK ANALYSIS

Eduardo Botello Casey
César Isao Pastelin Kohagura
Luis Emilio Fernández González



Defaulter's behavior



WHAT ARE WE TRYING TO SOLVE?

GOAL

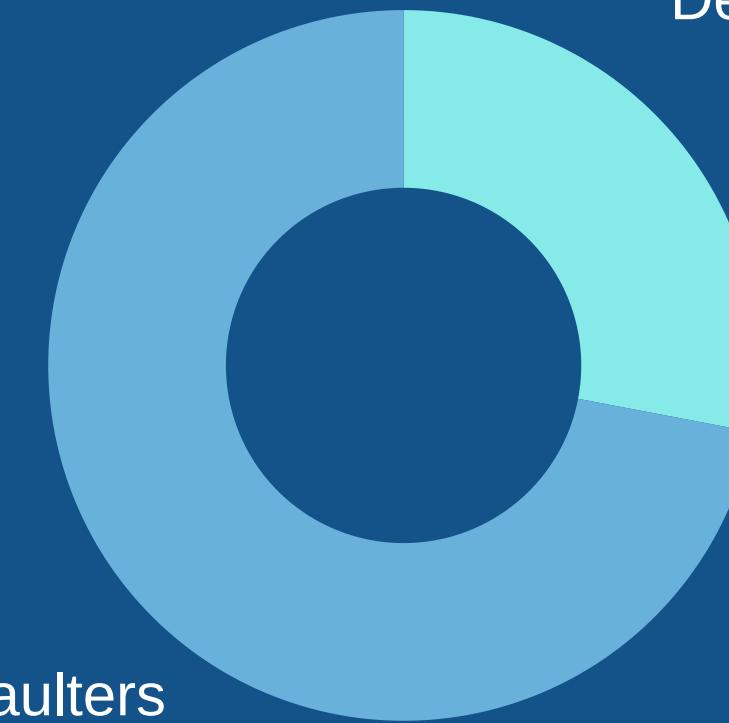


Elaborate a predictive model that allows LENDSMART to identify possible defaulters

Non-Defaulters
72%

Defaulters
28%

PORTFOLIO DISTRIBUTION



KEY INSIGHTS: WHAT DRIVES DEFAULTERS?



PAYMENT HISTORY SCORE

It has a coefficient of - 15.67
Indicating that as it increases
so does the probability of
being a defaulter



JOB STABILITY SCORE

It has a coefficient of - 12.8
Indicating that as it increases
so does the probability of
becoming a defaulter



CREDIT UTILIZATION

it has a coefficient of 11.31
Indicating that a high value
indicates low probabilities of
being a defaulter

LESSER VARIABLES

IN ADDITION TO THESE
THREE KEY VARIABLES, TWO
OTHERS WERE OBSERVED
TO HAVE A SMALLER BUT
STILL RELEVANT
INFLUENCE



DEBT TO INCOME RATIO

Coefficient of 4.5



CREDIT SCORE

Coefficient of -.24

LDA -CONFUSION MATRIX

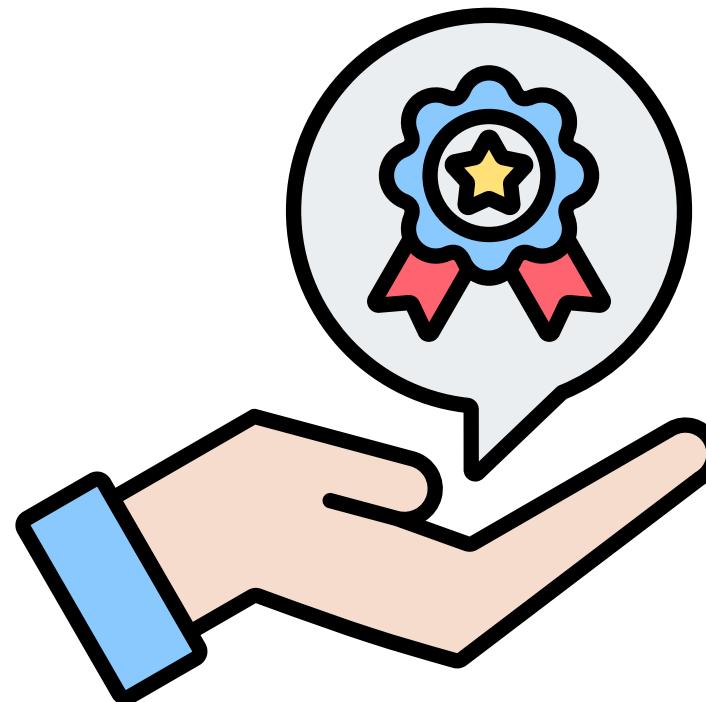
	NONE- DEFULTERS PROPERLY IDENTIFIED	DEFULTERS PROPERLY IDENTIFIED
NONE- DEFULTERS INCORRECTLY IDENTIFIED	387	0
DEFULTERS INCORRECTLY IDENTIFIED	0	136

QDA -CONFUSION MATRIX

		NONE- DEFULTERS PROPERLY IDENTIFIED	DEFULTERS PROPERLY IDENTIFIED
NONE- DEFULTERS INCORRECTLY IDENTIFIED	387	0	
	0	136	

FINAL RECOMMENDATIONS

- WE RECOMMEND THAT LENDSMART DEPLOYS THE LDA (LINEAR DISCRIMINANT ANALYSIS) MODEL AS THE PREFERRED SOLUTION



- NOTE THAT THIS MODEL WAS TRAINED ON HISTORICAL DATA WITH CLEAR GROUP SEPARATION, MEANING THAT FUTURE DATASETS WITH MORE OVERLAP OR NOISE MAY SLIGHTLY REDUCE ACCURACY