
Affordable Housing – Technical Workshop



Apr 02, 2019: Kuala Lumpur



2019

2016

- NHB granted license
- USD 5M Capital Infusion
- Operations started in Rajasthan region
- Distribution – 2
- Disbursed Amt – USD 26.8M

2012

- 'A-' Rating
- Expansion in 4 new regions – Gujarat, Maharashtra, MP and Delhi/NCR
- Distribution – 42 Branches
- Accounts Appraised – 43,606
- Disbursed Amt – USD 150.9M
- Live Accounts – 15,259
- AUM – USD 125.3M
- PAT – USD 2.8M
- Net Worth – USD 30.2M
- Borrowing Cost – 11.45%

- CARE Upgrades Long term Rating from A+ to AA-
- First Multilateral Institution funding from IFC for USD 20M in Long Term NCD and Masala Bond from CDC for USD 30M
- Distribution – 210 Branches
- Accounts Appraised – over 100 thousand
- Live Accounts – ~70 k
- AUM ~ USD 759M
- Net Worth – USD 235M
- PAT – USD 17.4M
- Borrowing Cost – 8.8%

AAVAS – Who we are?

WHEN we started

USD 5 MN
Capital
Infusion

NHB
License in
2012

2
Branches
Disbursed
Amt USD
26.8M

Inclusive Lending

Informal
Segment

New to
Credit

Average
Ticket
Size Up to
USD 13K

HOW we cater

Assessment
based
Underwriting

Informal Segment &
Low Ticket Size

Vertical
Penetration
Model

10 States : 210
Branches

Technology
Disruption to
Optimize

Brick & Mortar to
Digital Framework

WHOM we cater

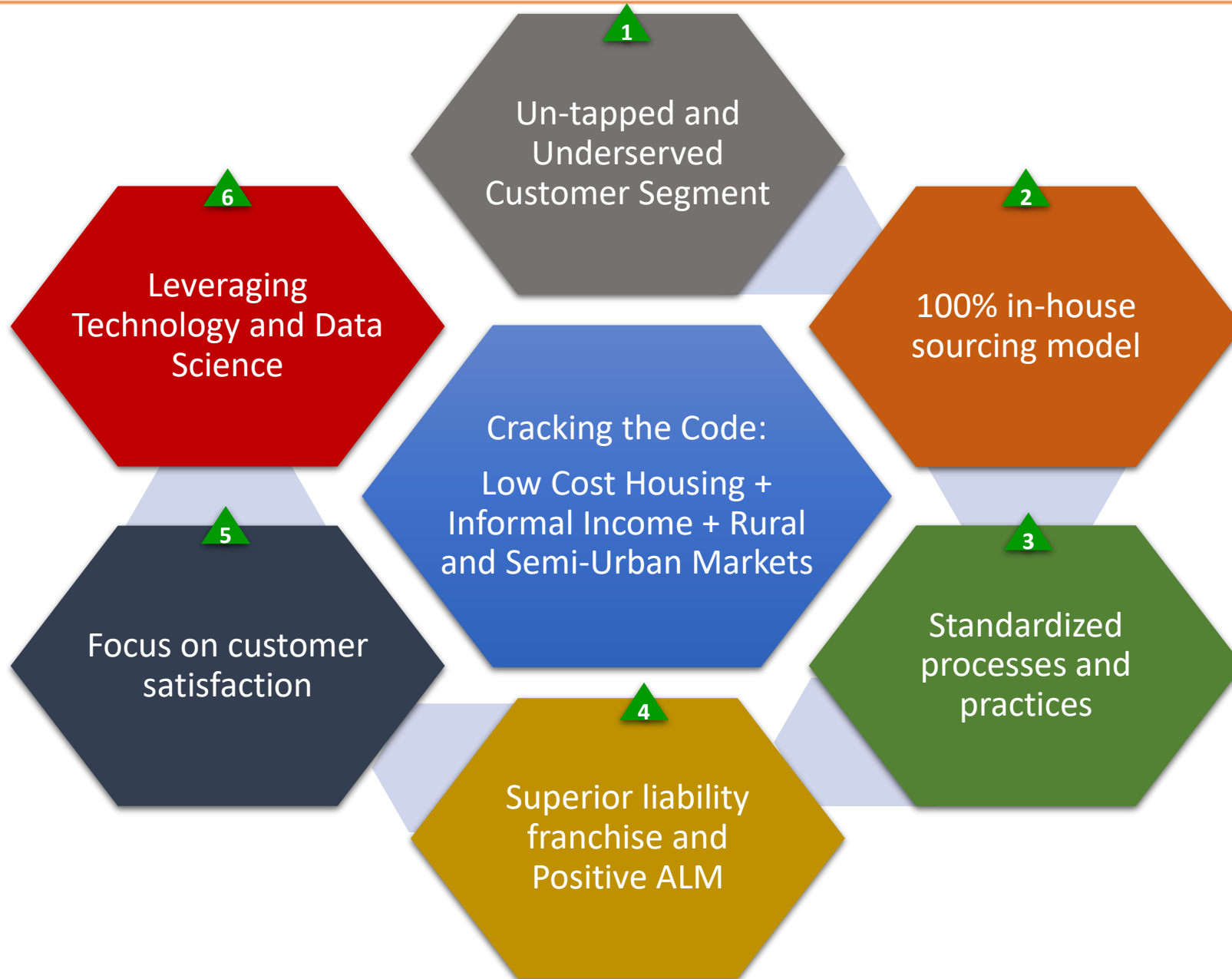
WHERE we are

210
Branches
A/CS
Appraised
over 100K

AUM USD
759 M
Live A/CS
~ 79k

Net Worth
USD 235M
PAT USD
20M

AAVAS – Differentiated Model for Sizeable and Challenging Market



Our Target Segment

Salaried

- 30% of the portfolio
- 10% have cash salaries
- 20% have salaries credited to account

Self Employed

- 70% of the portfolio
- Xxx% of SENP
- Manual Book keeping practices
- Inaccurate ITR's
- Challenging assessment



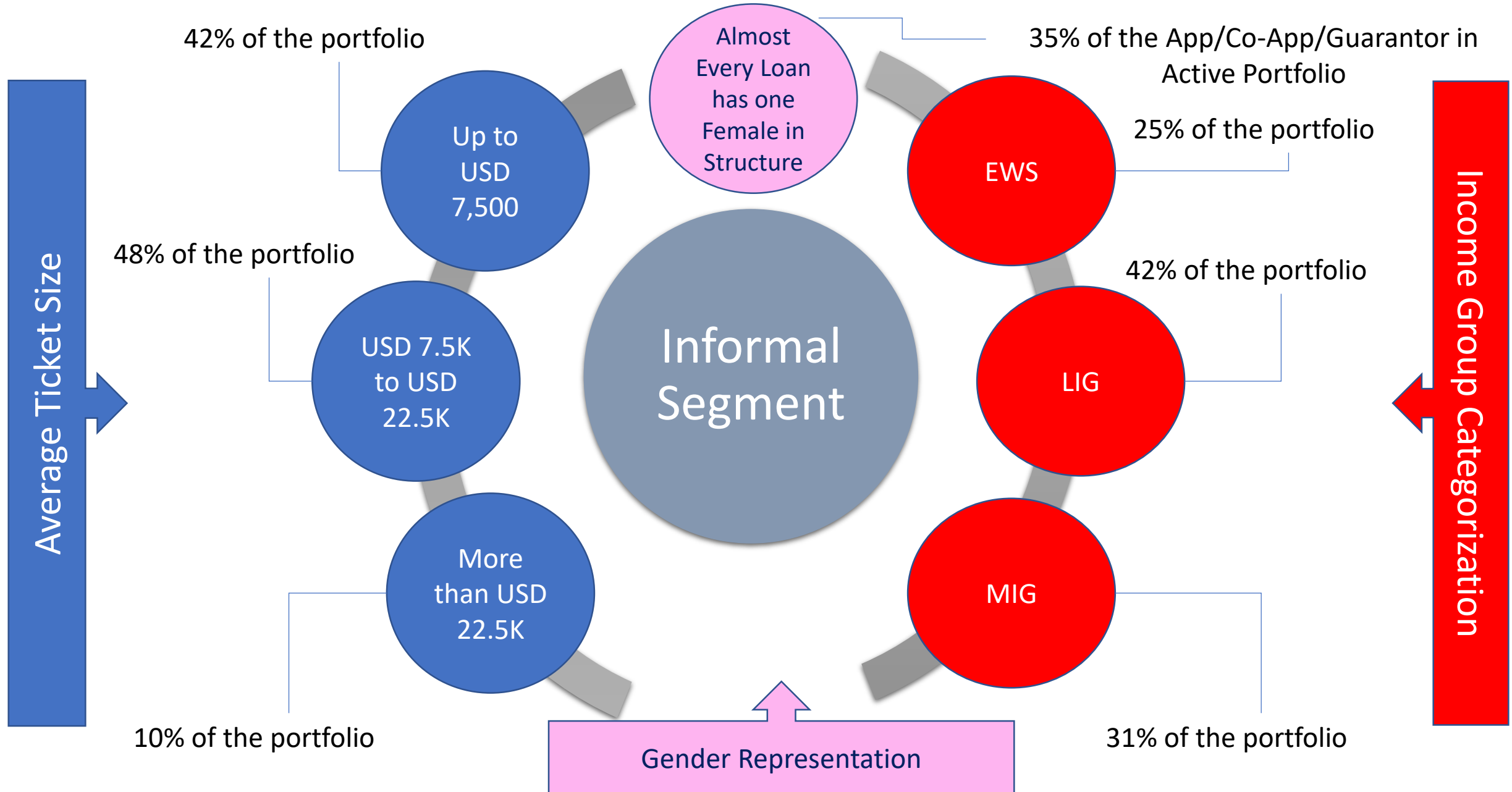
Informal Segment

New to Credit

- 32% of the incoming leads
- Challenge in Risk assessment

A unique feature of our portfolio is that 95% of our customers are residential end users. This mitigates our risk significantly

Our Target Segment – Some Key Features



Inclusive Lending – Some sample profiles

Customer: Domestic Help



Before



After

Particulars	Description
Loan Amount	USD 1.5K
Purpose	Renovation
Monthly Income	USD 112

Customer: Street Vendor



Before



After

Particulars	Description
Loan Amount	USD 6K
Purpose	House Purchase
Monthly Income	USD 224

Inclusive Lending – Some sample profiles

Customer: Transporter



Before



After

Particulars	Description
Loan Amount	USD 12.5K
Purpose	Construction
Monthly Income	USD 313

Customer: Carpenter



Before



After

Particulars	Description
Loan Amount	USD 5.5K
Purpose	REPAIR & RENOVATION
Monthly Income	USD 209

Brick and Mortar to Digital Framework



Loan Origination

- Feet on Street
- Physical application form



Validation

- Physical document verification
- Manual external agency management



Underwriting

- Manual bureau triggers
- Credit assessment through physical documents



On-Boarding

- Restricted at Hubs(Not at Sourcing location)
- Physical Repayment lodgment

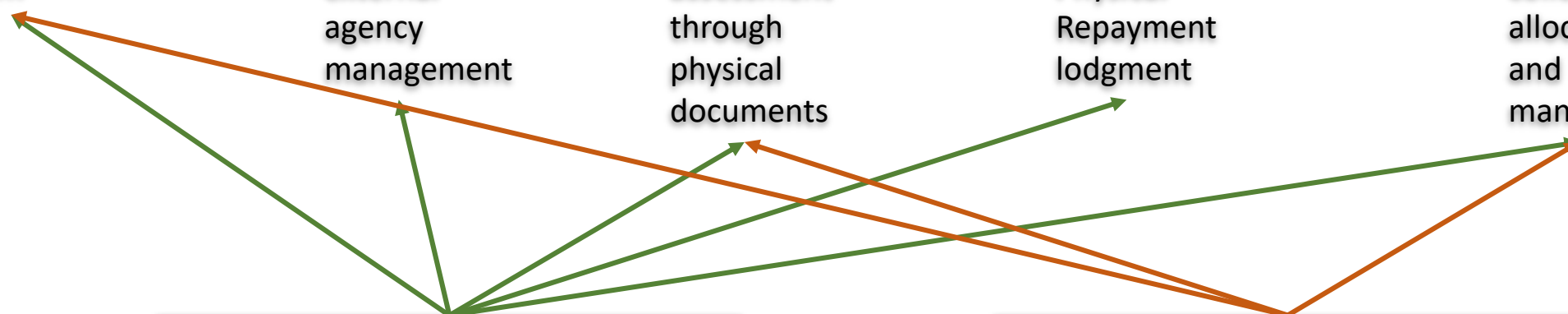


Lifecycle Management

- Request tracking on excel
- Manual collection allocation and management

Digital Disruption

Data Science

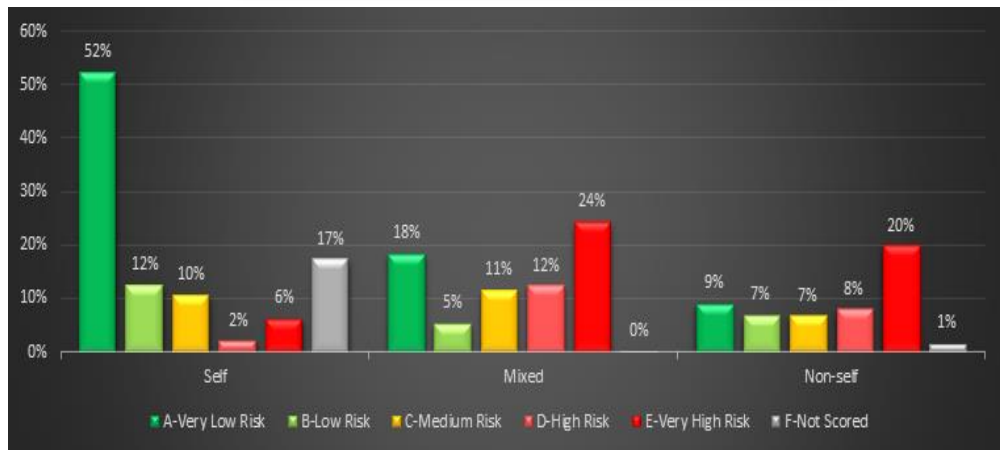


Reject Inferencing and Underwriting Model

Insight

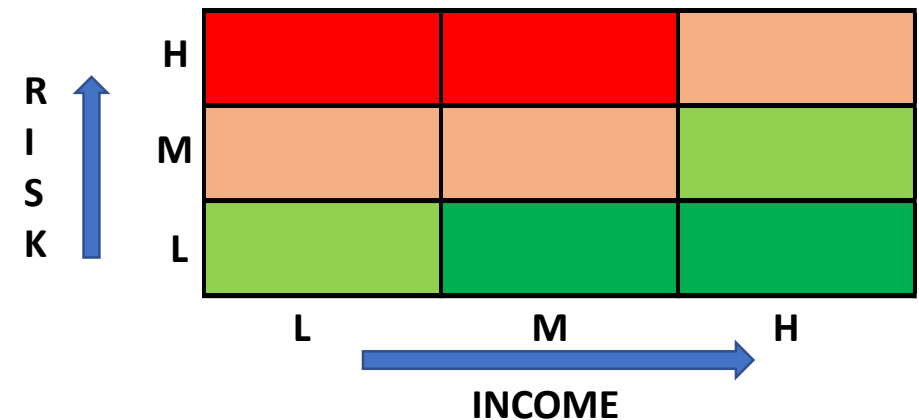
Customer Review 108623	Hit 75302 (69.32%)	Customer Split	Account Split		Performance Split	
		Self 5307 (7.05%)	Active	6026	Good	5984
			Closed	456	Bad	42
		Mixed 10965.00 (14.56%)	Active	45454	Good	44407
			Closed	28652	Bad	1047
		Non Self 48728 (64.71%)	Active	135521	Good	128383
Closed	109736		Bad	7138		
Past searches on Customers 10302 (14.00%)						
No hit 33235						
Error 1						

Mortgage Loan on Reject cases



Underwriting Model

- We already have a Application Scorecard in production that filters out the incoming leads on basis of some basic customer attributes.
- The Data Science Team is currently working on developing an Underwriting Model in collaboration with CRISIL which will help us segment our prospects on basis of their risk potential
- The underwriting model will serve as a guidance mechanism for underwriters to do better risk assessment and thus optimal pricing for the undertaken risk



1+ Delinquency: > USD 3.7M POS

Business Activity	Main self Employed category	Delhi	Gujarat	MP	Maharashtra	Rajasthan
Civil Contractors / Architect/Labour Contractor	Service	Y	N	N	N	Y
Provision Stores/ General Stores/Stationary	Retailer	Y	Y	Y	Y	Y
Dairy/Milk trading	Agriculture	Y	Y	N	N	Y
Tours and Travels/ transporters/Earthmover Hiring	Service	Y	M	N	N	Y
Garment shop/ Cloth Stores	Retailer	M	N	N	N	Y
Fabricators/Furniture	Manufacturer	Y	N	Y	N	Y
Sweets/Saivery/bakery	Retailer	Y	Y	M	M	M
Schools/Tuition centers/PG or Hostel	Service	M	Y	N	Y	Y
Hotels/Restaurants/Eatery/Catering business	Service	Y	N	N	N	Y
Jewellery Making/ Goldsmith	Manufacturer	N	N	N	N	N
Building Material Suppliers	Retailer	Y	M	Y	N	M
Tailor/Stitching/Embroidary	Service	Y	Y	Y	M	Y
Property Broker	Service	Y	Y	N	M	N
Hair Saloons / Purohit / Astrologer	Service	Y	Y	Y	N	Y
Workshops auto/mech/welding/Service Centers	Service	Y	N	Y	Y	N
Fruit & vegetable	Retailer	Y	Y	N	Y	Y
Photo studio/event mangement	Service	Y	Y	M	Y	M

Plough Back

- Restricted Gold Smith & Dairy Business Profiles
- Caution on Restaurant and Building Material Supplier Profile
- Fast track disbursals for Salaried profiles

1+ Delinquency: USD 1.5M - USD 3.7M POS

Business Activity	Main self Employed category	Delhi	Gujarat	MP	Maharashtra	Rajasthan
Hospital/Clinic/Doctor	Service	Y	Y	Y	M	Y
Medical Stores	Retailer	Y	Y	N	Y	Y
Rental income from Property/Goods	Service	Y	Y	N	Y	Y
Hardware/Auto Parts	Retailer	N	N	M	N	Y
Electric/electronic items	Retailer	N	Y	M	N	Y
Tea Stall	Retailer	Y	N	Y	Y	Y
Mobile & Computer Sales/Accessories	Retailer	Y	Y	N	N	N
Electrician/Plumber	Service	Y	Y	N	N	Y
Jewellery/Diamond/Stones/Gems	Retailer	N	N	N	N	N
Photo Copier/Cyber Café/Printing & Designing	Service	Y	N	Y	Y	Y
Water Supplier	Service	Y	N	Y	N	M
Professional/Consultants	Service	Y	M	Y	N	N
Fertilizer/Pesticides	Agriculture	Y	Y	N	Y	N
Agents	Service	Y	M	N	Y	Y
Repairing work	Service	Y	Y	Y	Y	N
Textile/Garment	Manufacturer	Y	Y	Y	N	Y
Agriculture	Agriculture	Y	Y	N	Y	Y
Scrap Business	Retailer	Y	N	Y	Y	M
Food Grain wholeseller	Wholseller/Distributor	Y	Y	Y	N	N
Building Material Mfg.	Manufacturer	N	N	M	N	M
Footwear Shop	Retailer	Y	Y	N	N	N
Driver	Service	N	Y	Y	Y	N
Flour mill	Service	Y	N	M	Y	N

30+ Delinquency: > USD 3.7M POS

Business Activity	Main self Employed category	Delhi	Gujarat	MP	Maharashtra	Rajasthan
Civil Contractors / Architect/Labor Contractor	Service	Y	N	N	N	Y
Provision Stores/ General Stores/Stationary	Retailer	Y	Y	Y	Y	Y
Dairy/Milk trading	Agriculture	Y	Y	N	M	Y
Tours & Travels/ transporters/Earthmover Hiring	Service	Y	Y	Y	M	Y
Garment shop/ Cloth Stores	Retailer	Y	M	M	N	Y
Fabricators/Furniture	Manufacturer	Y	N	Y	M	Y
Sweets/Saivery/bakery	Retailer	Y	Y	M	Y	Y
Schools/Tution centers/PG or Hostel	Service	Y	Y	N	Y	Y
Hotels/Restaurants/Eatery/Catering business	Service	Y	N	N	Y	Y
Jewellery Making/ Goldsmith	Manufacturer	M	M	N	N	M
Building Material Suppliers	Retailer	Y	N	Y	N	M
Tailor/Stitching/Embroidary	Service	Y	Y	M	Y	Y
Property Broker	Service	Y	Y	M	Y	M
Hair Saloons / Purohit / Astrologer	Service	Y	Y	Y	N	Y
Workshops auto/mech/welding/Service Centers	Service	Y	N	M	Y	Y
Fruit & vegetable	Retailer	Y	Y	Y	Y	Y
Photo studio/event mangement	Service	Y	Y	N	Y	Y

Plough Back

- Restricted Gold Smith & Dairy Business Profiles
- Caution on Restaurant and Building Material Supplier Profile
- Fast track disbursals for Salaried profiles

30+ Delinquency: USD 1.5M - USD 3.7M POS

Business Activity	Main self Employed category	Delhi	Gujarat	MP	Maharashtra	Rajasthan
Hospital/Clinic/Doctor	Service	Y	Y	Y	Y	Y
Medical Stores	Retailer	Y	Y	Y	Y	Y
Rental income from Property/Goods	Service	Y	Y	Y	Y	Y
Hardware/Auto Parts	Retailer	M	M	Y	M	Y
Electric/electronic items	Retailer	Y	Y	Y	M	Y
Tea Stall	Retailer	Y	M	Y	M	Y
Mobile & Computer Sales/Accessories	Retailer	Y	Y	N	M	Y
Electrician/Plumber	Service	Y	M	M	N	Y
Jewellery/Diamond/Stones/Gems	Retailer	M	M	M	N	N
Photo Copier/Cyber Café/Printing & Designing	Service	Y	Y	Y	M	Y
Water Supplier	Service	Y	M	Y	N	Y
Professional/Consultants	Service	Y	M	Y	Y	Y
Fertilizer/Pesticides	Agriculture	Y	Y	M	Y	N
Agents	Service	Y	Y	Y	Y	Y
Repairing work	Service	Y	Y	Y	Y	N
Textile/Garment	Manufacturer	Y	Y	Y	Y	Y
Agriculture	Agriculture	Y	Y	Y	Y	Y
Scrap Business	Retailer	Y	Y	Y	Y	Y
Food Grain wholeseller	Wholeseller/Distributor	Y	Y	Y	M	N
Building Material Mfg.	Manufacturer	Y	N	N	M	Y
Footwear Shop	Retailer	Y	Y	M	N	N
Driver	Service	Y	Y	Y	M	M

4 Layered Structure

Cash flow assessment

- ~400 strong team
- ~150 professionals
- Business visit to assess income
- Templated u/w model

Legal Assessment

- External vendor assessment
- Internal vetting
- Scan based decision
- Centralized as well as Branch level control and processing

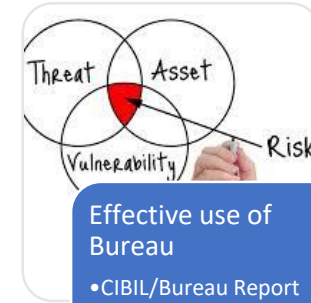
Technical Assessment

- Standard underwriting template for quick decision making
- Hired professionals to assess technical measurement
- Periodical review of construction projects

Risk Containment Unit

Identification of fraud at early stage
Random sampling by RCU before disbursement

Risk Management Tools

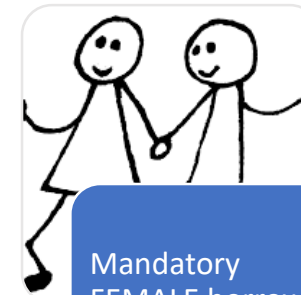


Effective use of Bureau

- CIBIL/Bureau Report
- RCU (Risk Containment Unit) Report
- De-DUPE
- Field Investigation
- Registration under CERSAI act



Guarantors are must in most of the cases



Mandatory FEMALE borrower



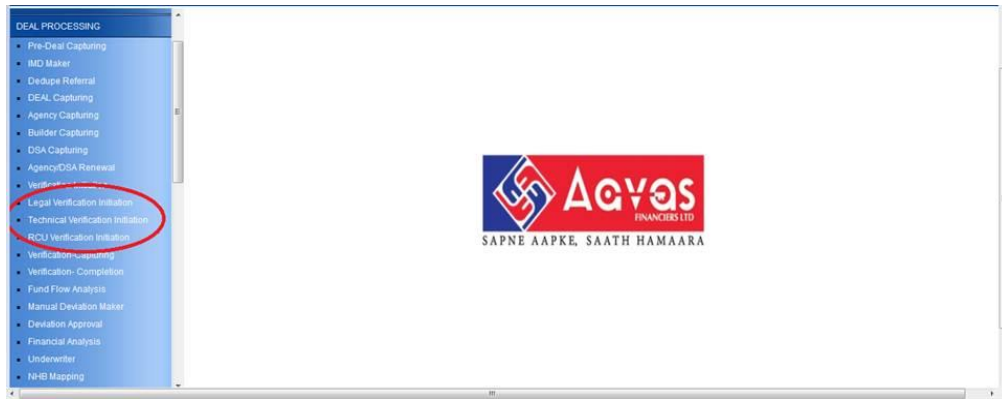
Mortgage term Life Insurance

- Almost 100% penetration
- Insurance on life of principal earner

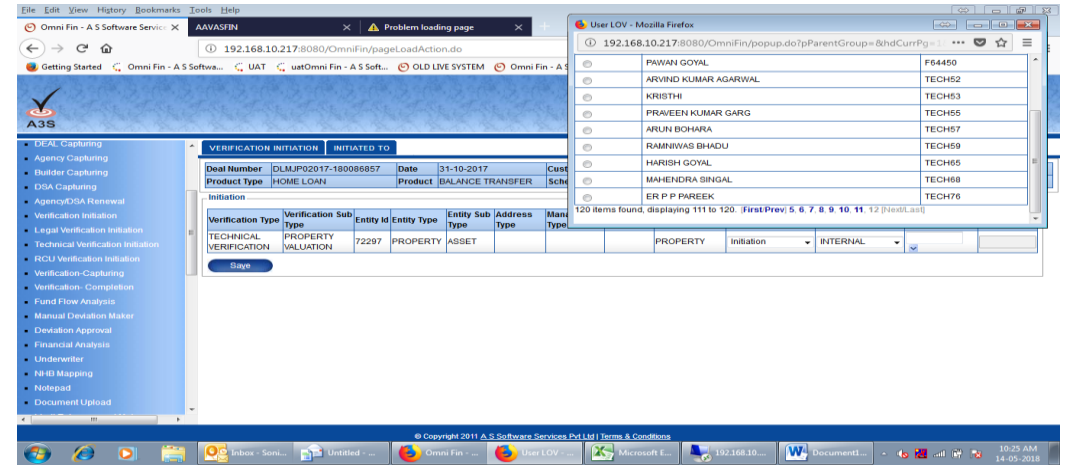
100% of the customers visit at branch office for signing the documents and KYC formalities

Safeguards (automated validations..)

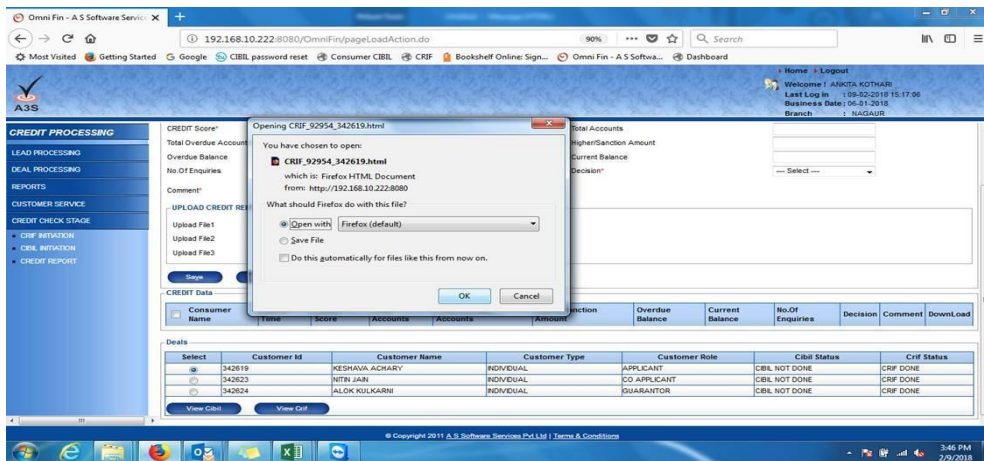
System Driven Initiation



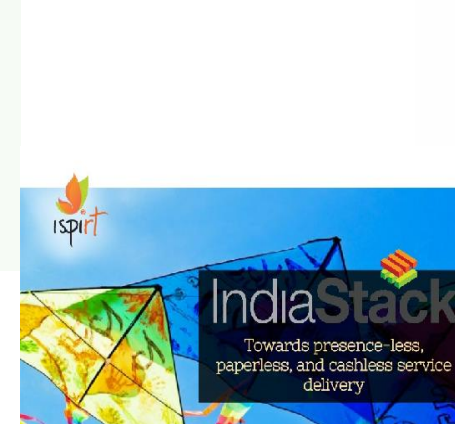
System Driven Allocation



Auto Bureau Trigger



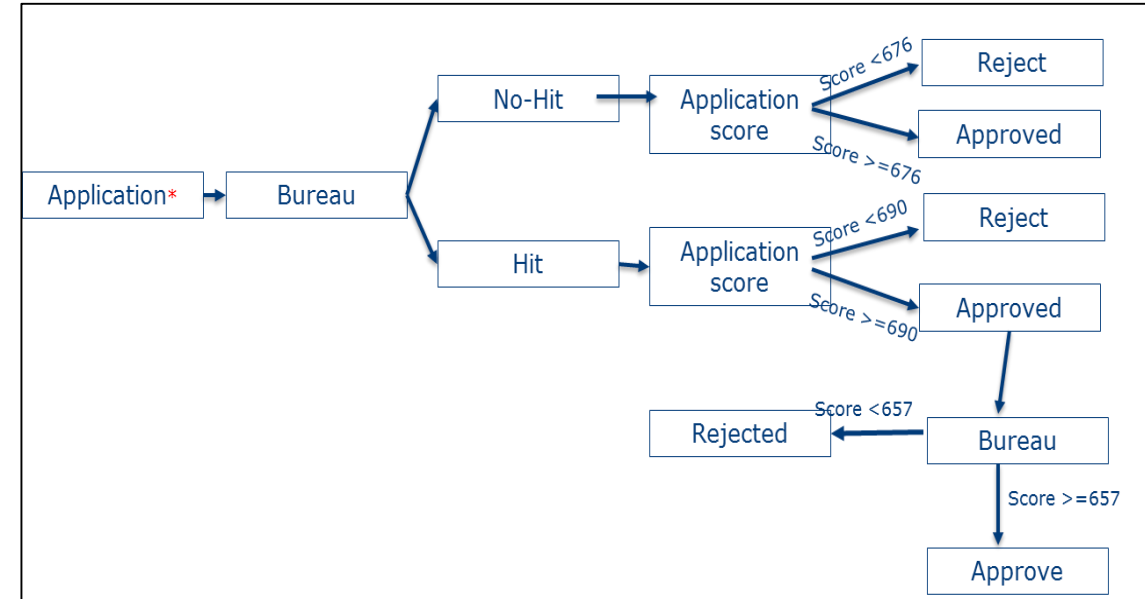
Interface with Validation Tools



Solutions – Application Scorecard

Analytics team developed an Application Scorecard to identify the customers who need to be prioritized / de-prioritized (left out) in order to control risk, reduce TAT and improve conversion rates

#	Variables	Reject Score	App Score on AppInfo	App Score on Bureau
1	Type of Address of the Customer		11.93%	
2	Category of the Customer (Caste)		6.17%	
3	Loan Product		14.40%	
4	Type of Employment		11.11%	
5	Level of Asset (Rural or Urban) X Property Class		9.05%	
6	City of the Branch	16%	38.68%	
7	Tenure of the Loan	2%		
8	Age of the Customer	16%		
9	Source	29%	8.64%	
10	Level of Approval of the Loan	37%		
11	Current Overdue of the all Loans before snapshot			10%
12	# of times Loan due was not paid for 90 days			14%
13	Consumer Bureau Score of the Customer			76%

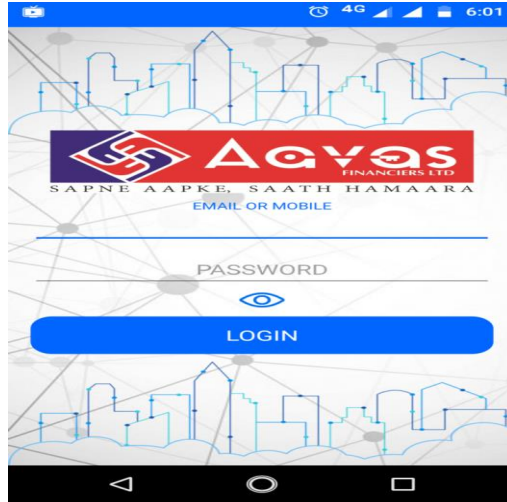


Decile	MIN SCORE	MAX SCORE	Bad#	Good#	Total	BAD RATE
1	0	255	4,819	239	5,058	95.27%
2	256	415	3,377	1,672	5,049	66.88%
3	417	561	2,484	2,546	5,030	49.38%
4	562	622	2,134	2,989	5,123	41.66%
5	623	662	1,744	3,290	5,034	34.64%
6	663	709	1,627	3,656	5,283	30.80%
7	711	760	1,258	3,612	4,870	25.83%
8	762	814	1,104	4,061	5,165	21.37%
9	817	936	509	4,409	4,918	10.35%
10	937	979	295	4,831	5,126	5.75%
			19,351	31,305	50,656	

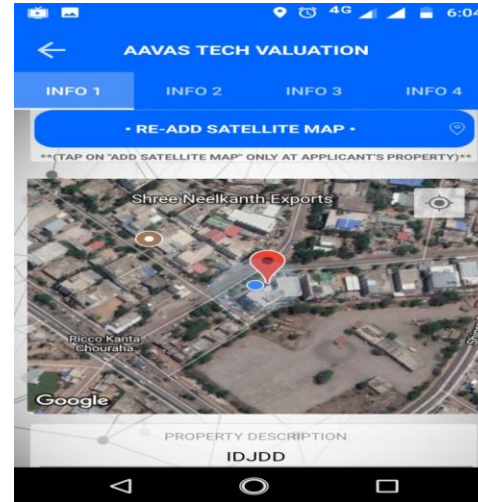
Association of Predicted Probabilities and Observed Responses			
Percent Concordant	79.6	Somers' D	0.595
Percent Discordant	20	Gamma	0.598
Percent Tied	0.4	Tau-a	0.281
Pairs	605783055	c	0.798

Underwriting – Technical Valuation, 100% Automated...

Tech Team Login



Long-Lat Capturing



Property Details

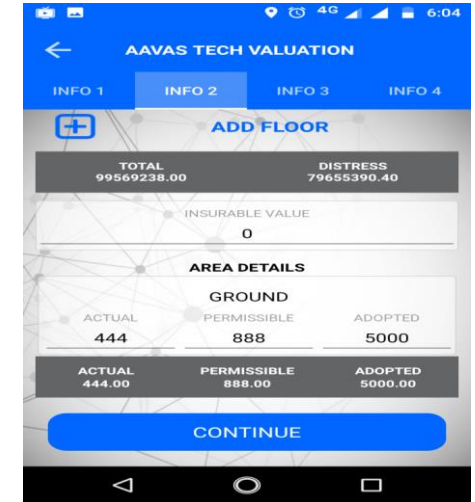
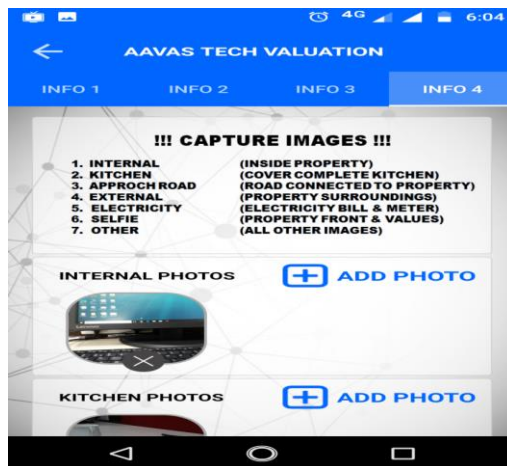
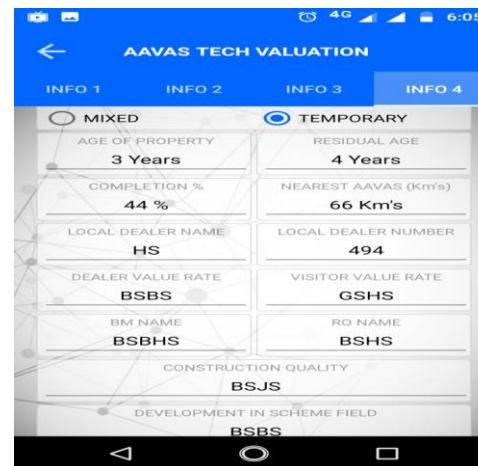


Image Capturing



Details Capturing



Automated Technical Report





Lifecycle Management – Bounce Prediction

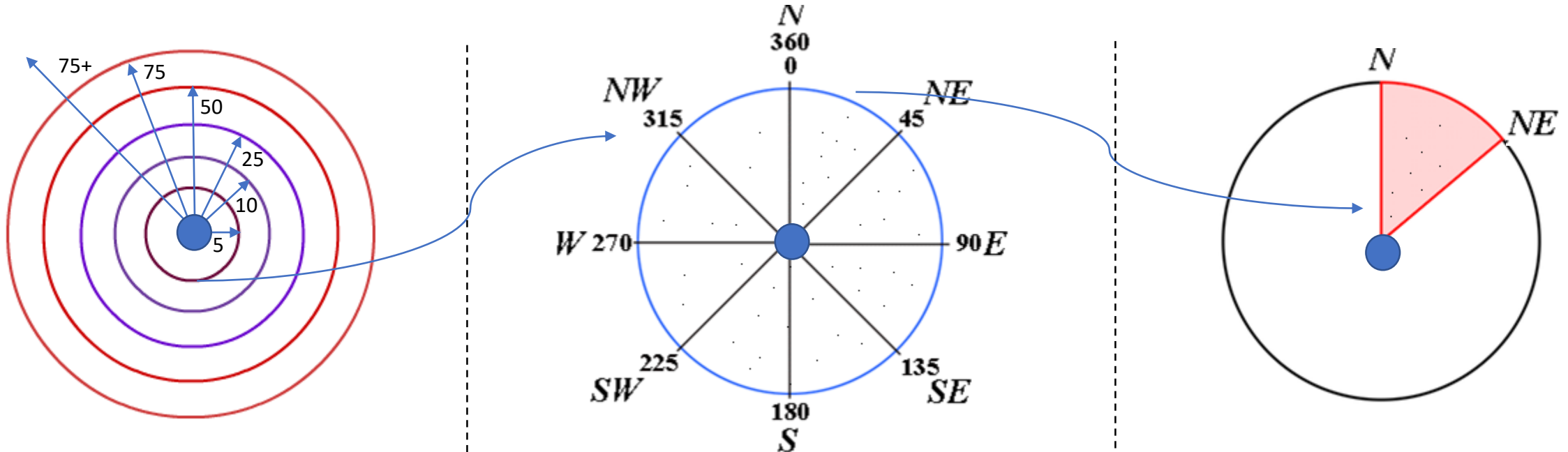
Bounce Prediction Model to forecast / predict the customers which are going to default on their installment on a given cycle date and worked with Collections team to define a proactive strategy to minimize bounce rates

Analysis of Maximum Likelihood Estimates						
Parameter	Label	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept		2.7474	0.059	2165.5966	<.0001	
B_IRR_Band	LE 12	0.3329	0.1077	9.5497	0.002	0.0761
B_IRR_Band	12 to 13	0.2147	0.0668	10.3159	0.0013	0.0628
B_IRR_Band	13 to 15	0.1141	0.0503	5.1405	0.0234	0.0401
B_IRR_Band	15 to 17	-0.0828	0.0533	2.4132	0.1203	-0.0259
B_IRR_Band	17 to 18, GT 20	-0.1328	0.067	3.9218	0.0477	-0.0356
B_LN_Vintage_Grp	12 to 18 Months	0.7837	0.0457	293.7406	<.0001	0.3006
B_LN_Vintage_Grp	18 to 24 Months	0.1699	0.0405	17.5605	<.0001	0.0675
B_LN_Vintage_Grp	24 to 30 Months	-0.2316	0.0465	24.7677	<.0001	-0.0813
B_LOAN_TENURE	0-5 year, 15 Years+	0.0117	0.046	0.0648	0.7991	0.00482
B_LOAN_TENURE	5-10 year	0.1059	0.0398	7.0753	0.0078	0.0525
CIBIL_BAND	-1 to 600	0.1544	0.0399	15.003	0.0001	0.0638
CIBIL_BAND	601 to 700	-0.3654	0.0637	32.9309	<.0001	-0.1031
CIBIL_BAND	700 +	0.2015	0.0442	20.782	<.0001	0.0765
City_Updated_grp	BOTAD,JABALPUR,NOIDA,RATANGIRI,SHRI GAN	0.5764	0.1293	19.8611	<.0001	0.0983
City_Updated_grp	DELHI-RAJENDRA,GURGAON,ALWAR,Neemran	0.2338	0.1054	4.9148	0.0266	0.0431
City_Updated_grp	THANE,BORIVALI,JAIPUR AJMER ROAD,BALOTR	0.2546	0.0625	16.6192	<.0001	0.0698
City_Updated_grp	CHAKAN,PALANPUR,SURAT,PITHAMPUR,KOTA	0.1405	0.0777	3.2721	0.0705	0.0299
City_Updated_grp	HADAPSAR,SURENDRANAGAR,JETPUR,BARODA	-0.0745	0.0684	1.1866	0.276	-0.0167
City_Updated_grp	SHAHPURA,BHOPAL,BEAWAR,NASIK,SIROHI,PA	-0.1457	0.0748	3.7953	0.0514	-0.0299
City_Updated_grp	KISHANGARH,BARAN,INDORE,SURATGARH,BIJA	-0.1185	0.0757	2.452	0.1174	-0.0242
City_Updated_grp	RATANGARH,BHILWARA,RATLAM,SUMERPUR,C	-0.2179	0.0682	10.2	0.0014	-0.0487
City_Updated_grp	WARDHA,MANDSAUR,RAJSAMAND,CHURU	-0.0212	0.1166	0.0329	0.856	-0.00325
INT_CUST_PROFILE_Grp	NA, Salaried-Listed Pvt Cos/MNCs	1.6671	0.2185	58.2144	<.0001	0.6091
INT_CUST_PROFILE_Grp	Salaried-Other Pvt Cos	-0.0407	0.084	0.2348	0.628	-0.0143
INT_CUST_PROFILE_Grp	Salaried-Cash	-0.0604	0.1238	0.2379	0.6257	-0.0173
INT_CUST_PROFILE_Grp	Salaried-GOVT	-0.4352	0.0772	31.8013	<.0001	-0.1553
INT_CUST_PROFILE_Grp	Self Employed-Service	-0.4885	0.0661	54.6613	<.0001	-0.197
Last_3Mnth_bnce_indi		-3.3608	0.0536	3925.8042	<.0001	-0.8952
PROPERTY_Desc_Grp	Lal Dora,NA	0.4638	0.2167	4.582	0.0323	0.1539
PROPERTY_Desc_Grp	Society (Jaipur),FREEHOLD PROPERTY	0.1079	0.0842	1.6395	0.2004	0.0366
PROPERTY_Desc_Grp	Gunthewari,MH Gram Panchayat	-0.1966	0.0992	3.9245	0.0476	-0.0565
PROPERTY_Desc_Grp	Development Authority,Municipal Corporati	-0.1141	0.0683	2.7873	0.095	-0.0487

Decile	MIN SCORE	MAX SCORE	Bad#	Good#	Total	BAD RATE
1	0.032233	0.176742	1,364	205	1,569	86.93%
2	0.176747	0.29551	1,189	381	1,570	75.73%
3	0.295533	0.60367	949	621	1,570	60.45%
4	0.603854	0.82771	426	1,143	1,569	27.15%
5	0.827718	0.886266	193	1,378	1,571	12.29%
6	0.886304	0.917985	144	1,426	1,570	9.17%
7	0.917988	0.941912	118	1,452	1,570	7.52%
8	0.941928	0.96081	61	1,509	1,570	3.89%
9	0.960815	0.979793	43	1,527	1,570	2.74%
10	0.979854	0.998959	26	1,545	1,571	1.65%
			4,513	11,187	15,700	

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	90	Somers' D	0.801
Percent Discordant	10	Gamma	0.801
Percent Tied	0	Tau-a	0.328
Pairs	50435330	c	0.9

Collection Allocation Optimization algorithms on R platform leveraging the longitude and latitude information at pin code level to identify the location (distance and direction) of customer / property from branch and allocate it accordingly



- ❑ Keeping the Branch in center we identify circular area around it using various radius – 5km, 10km, 25km, 50km, 75km and 75+
- ❑ This gives us the density / count of accounts within a specific radius

- ❑ A circle of any given radius is then divided into 8 sectors of same size
- ❑ The sectors are aligned with compass direction and are identifies using the long-lat of the branch and angular deviation from the axis

- ❑ Depending upon the density of accounts in sector(s) then one or more sectors are assigned to collectors to optimize geographical spread
- ❑ An optimal route is then identified using google maps



Lifecycle Management – Churn Prediction

BT/Churn Prediction Model to forecast / predict the customers which are going to attrite in a given month. The team then defines a treatment / mitigation plan for such probable cases so that when we get a request for BT then we can tactfully handle and retain the customer

Analysis of Maximum Likelihood Estimates						
Parameter	Label	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept		-9.8526	30.1974	0.1065	0.7442	
Last_9_mnth_disb_1st		2.2455	0.2515	79.7271	<.0001	1.0052
Constitution_grp	NW 'PARTNER' 'PUBLIC' 'SALARIED_C' 'SALCA'	-0.3979	0.1147	12.0276	0.0005	-0.118
Constitution_grp	'SELFEMP' 'SALARIED'	0.0528	0.0622	0.7206	0.396	0.0244
PRODUCT_GROUP	'HPP' 'MSME' 'OD' 'PRE' 'SHE' 'ULIH' 'AHUGS' 'HOE' 'RRL' 'BPTPA'	-1.179	0.0952	153.3437	<.0001	-0.4006
PRODUCT_GROUP	'PLC' 'HPR' 'HC'	0.1123	0.0462	5.9071	0.0151	0.0431
PRODUCT_GROUP	'NHP' 'HMNIP' 'PDADH'	0.3957	0.0515	59.0262	<.0001	0.1422
ASSET_grp	GRAMPAN 'GRAMTAL' 'GRAVTHAM' 'NAGARNI' 'CORAREA' 'NAGARPAR' 'N' "	-1.7707	0.1793	97.5777	<.0001	-0.5293
ASSET_grp	'RURAL' 'rural' 'Rural'	0.6817	0.0933	53.3647	<.0001	0.3103
BRANCH_GROUP	'DWARKA MOR' 'JAIPUR SANGAM TOWER' 'A'	-1.16	0.1081	115.1247	<.0001	-0.3672
BRANCH_GROUP	'SARDAR SHAHAR' 'NOKHA' 'SIROHI' 'HOSANGA'	-0.2702	0.0549	24.2545	<.0001	-0.1001
BRANCH_GROUP	'SURAT' 'JAIPUR SIKAR ROAD' 'BORIVALI' 'PITH'	0.3733	0.0565	43.6517	<.0001	0.1221
BRANCH_GROUP	'PIMPRI' 'BARODA' 'ANAND' 'CHAKAN' 'INDORE'	0.5881	0.0507	134.5686	<.0001	0.2011
Property_grp	A-Class	-12.5533	90.5886	0.0192	0.8898	-5.4025
Property_grp	B-Class , C-Class	3.4701	30.1962	0.0132	0.9085	1.4084
Property_grp	NA, #N/A	4.4025	30.1963	0.0213	0.8841	1.2286
EMI_Grp	NA ,LE 5k, 5-10k	-0.3655	0.0479	58.1149	<.0001	-0.1273
EMI_Grp	10-15k	0.00976	0.0446	0.0479	0.8268	0.00295
EMI_Grp	20-25k, 15-20k	0.157	0.0461	11.5758	0.0007	0.0427
FOIR_Grp	20-30,30-40, 40-50, LE 20	0.0822	0.0295	7.7397	0.0054	0.0372
IRR_Grp	LE 12	-0.3737	0.0668	31.2768	<.0001	-0.1374
IRR_Grp	15-18, 18-20	0.3065	0.0446	47.3077	<.0001	0.1583
LTV_Grp	NA ,30-40, 40-50, 50-60, 60-70,70+	-0.1973	0.0289	46.519	<.0001	-0.0948
Diff_Grp	GT 2LAC	-0.1618	0.033	23.9929	<.0001	-0.0711
Income_grp	LE 10k ,10k-20k, NA	-0.2096	0.0397	27.8962	<.0001	-0.0878
Income_grp	20k-30k, 30k-40k	0.0849	0.035	5.8964	0.0152	0.0372
Vintage_grp	NA , GT 36 mnth	-1.4023	0.0668	440.6954	<.0001	-0.4678
Vintage_grp	31-36 mnth, 25-30 mnth, 19-24 mnth	-0.5062	0.0424	142.6904	<.0001	-0.1984
Vintage_grp	13-18 Mnth, LE 6 mnth	0.6728	0.0419	257.6738	<.0001	0.2648

Decile	MIN SCORE	MAX SCORE	Bad#	Good#	Total	BAD RATE
1	0.217384	0.723655	1,371	2,633	4,004	34.24%
2	0.111701	0.216953	599	3,418	4,017	14.91%
3	0.052344	0.111449	344	3,681	4,025	8.55%
4	0.026495	0.052325	160	3,861	4,021	3.98%
5	0.009663	0.026475	68	3,943	4,011	1.70%
6	0.000581	0.009662	13	4,002	4,015	0.32%
7	4.512E-09	0.000579	0	4,014	4,014	0.00%
8	2.004E-09	4.512E-09	0	4,018	4,018	0.00%
9	6.82E-10	2.002E-09	0	4,016	4,016	0.00%
10	4.36E-12	6.81E-10	0	4,015	4,015	0.00%

Association of Predicted Probabilities and Responses			
Percent Concordant	92.7	Somers' D	0.854
Percent Discordant	7.3	Gamma	0.854
Percent Tied	0	Tau-a	0.109
Pairs	89509511	c	0.927

Title Mortgage ability

Shift

Governmental Effort

Succession Title
~75%

Individual Title
~75%

Earlier

Now

Individual Title
~25%

Succession Title
~25%

Programs and
Camps

Regularization
– Slums and
Unorganized
Properties

Changes in Land
Laws to facilitate
Lower Middle
Class in Owning
Homes

Concessions
on Charges

“*Simple can be harder than complex*” - Steve Jobs

- Shortage of trained manpower
- Expansion driven decentralization
- Technology Adoption



- Simplifying valuation mechanism – Capping valuation @ USD 15 /sqft
- Simplifying EMI servicing capacity – Maintaining a 2 day cash flow
- Training programs for new comers
- Empowering the regional / local leadership
- Slow and gradual ingestion of technology after convincing stakeholders with Proof of Concept

Paradigm Shift – From Target Centric to Customer Centric



- 10 days TAT for loan disbursal
- Entire incentive framework driven by delivery TAT
- 75% business in first 3 weeks of the month
- Niche products with simplified workflows and TAT as less as 2 days



