Delivering on the Promise of Customer Profitability

Boire Analytics

Boire Analytics

- *Leverage Data/Machine Learning and AI techniques to solve business problems*
- *Industry Pioneer who began career in 1983 in Data Science*
- *Established Track Record, Loyal Client Base*
- *Solving the right problem with the right data is the key to building successful analytics solutions*
- *Unique combination of analytical + technical + marketing expertise*
- *Data Expertise Married with Marketing and Credit Risk Know How*
- *Diverse Industry Experience*
- *Depth of Knowledge*

Boire Analytics Core Competencies in Achieving Customer Profitability

Predictive Analytics
Predictive Modeling & Statistical Analysis
Customer Segmentation & Profiling
Affinity & Basket Analysis
Web Mining

Customer Value Management
ROI Modeling
Profitability Analysis
Database Marketing Consulting
Communication Planning

Business Intelligence
KBM Reports
Marcom Effectiveness
Post Campaign Analysis

Data Management
Campaign Management
Scoring, List Selection & Creation
Campaign/Contact Management
Custom Database Design/Management

DATA IS AT THE HEART IN BUILDING ONE INTEGRATED VIEW OF CUSTOMER PROFITABILITY

Interaction Data
Offers
Results
Engagement

Attitudinal Data
Opinions
Preferences
Needs

Behavioural Data
Order
Transactions
Clickstream Data

Customer Profitability

Descriptive Data
Attributes
Characteristics
Geo-Demographic

Risk Data
Payment History
Claim Risk
Fraud Detection

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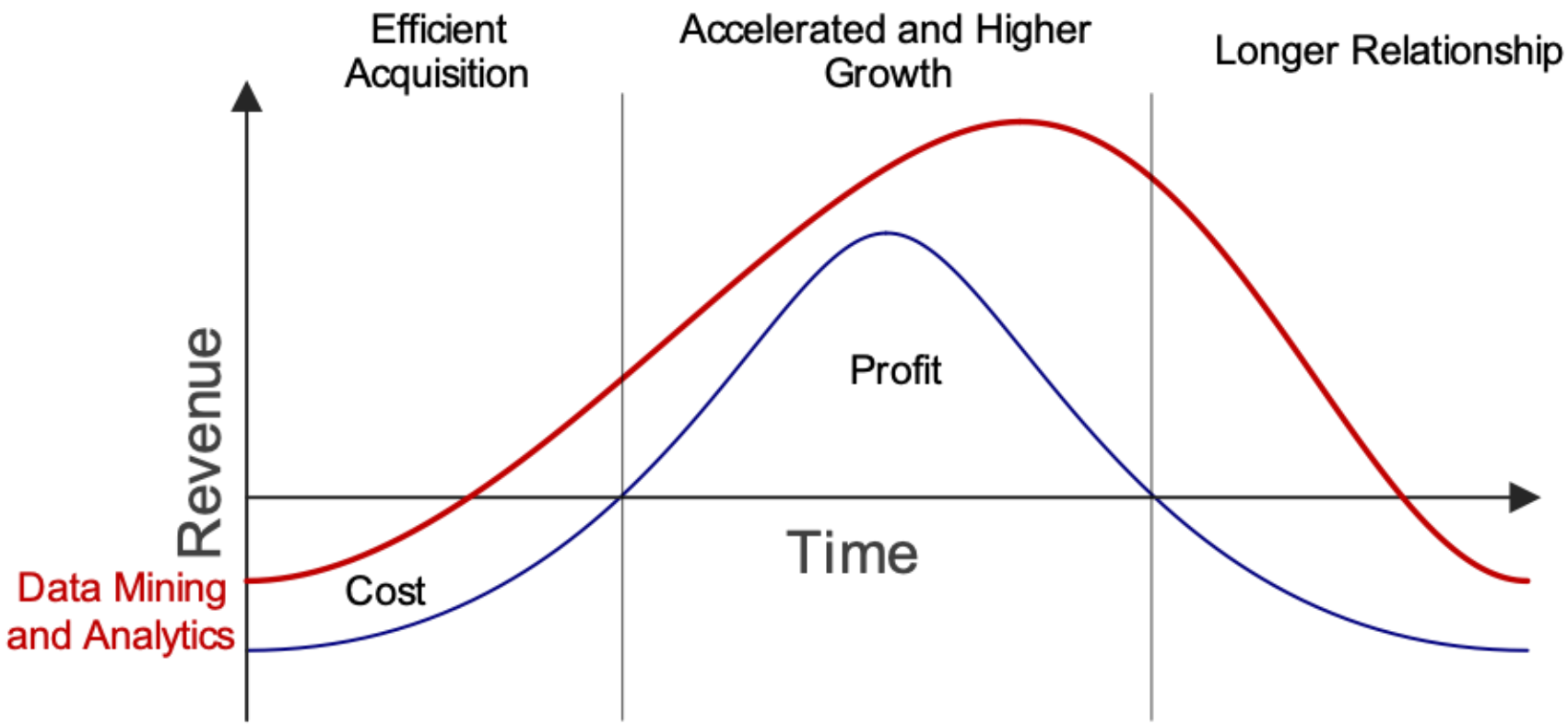
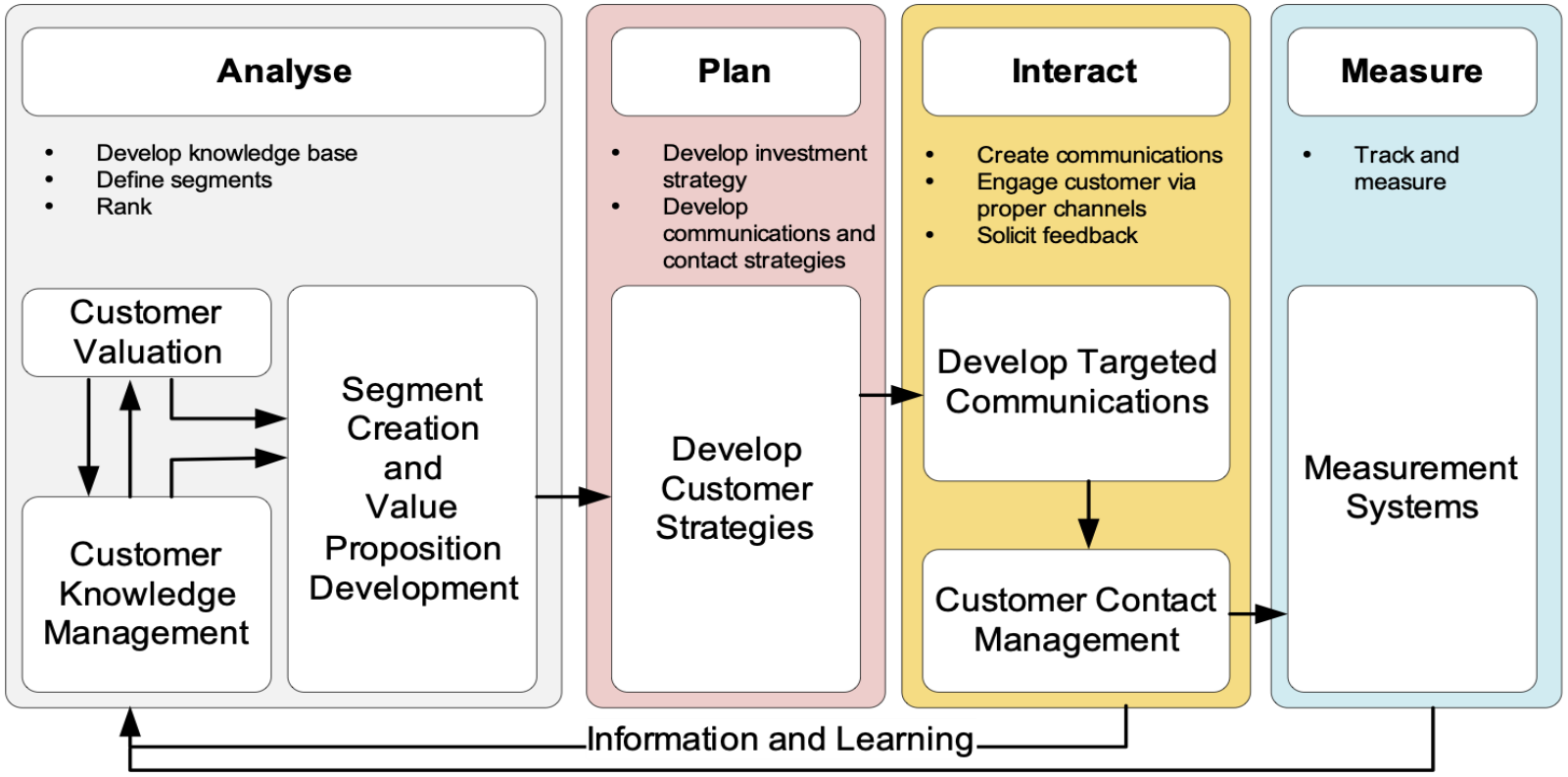
APPLYING DATA SCIENCE

Predictive Analytics is about reducing cost and increasing profits
(Red versus blue line)



THE BIG PICTURE

Effective customer profitability in the analysis phase drives program planning, execution of communications and program measurement.



GETTING STARTED

Establishing Customer Profitability through the Data Discovery

Preparation

- Meet with Key Stakeholders
- Understand Business Issues
- Understand Available Data
- Review Relevant Documentation
- Define Data Audit Requirements

Data Discovery

- Audit Existing Data
- Assess Completeness and Accuracy of Data Collected
- Produce Initial Frequency Reports
- Identify Data Gaps/ Recommend 3rd Party Data Overlays
- Variable Creation

Preliminary Analysis

- Produce Initial Reports
- Create Basic Customer Profitability Segments and Profiling Routines
- Identify Areas for Deeper Analysis
- Identify Gaps & Opportunities for Profitability Optimization

Building the Customer Profitability Roadmap

- Present Vision and Roadmap for Future Data Management, Market Research and Data Analytics Initiatives that will optimize customer profitability

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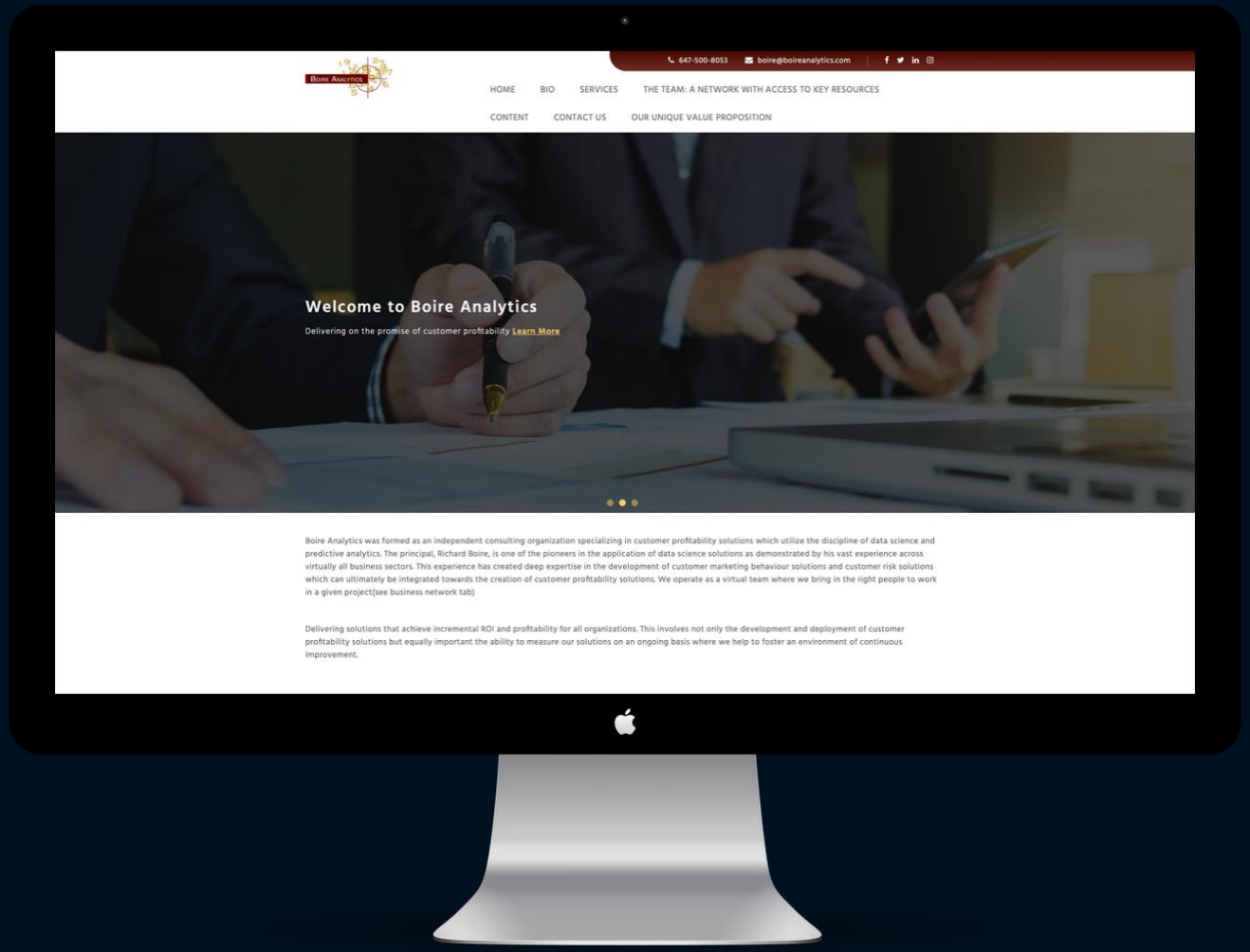
Project Management Approach

1. Problem Identification
2. Creating the Analytical Environment
3. Application of Data Mining Tools
4. Implementation and Tracking

Boire Analytics Mission Statement

Delivering solutions that achieve incremental ROI and profitability for all organizations.

This involves not only the development and deployment of customer profitability solutions but equally important the ability to measure our solutions on an ongoing basis where we help to foster an environment of continuous improvement.



HOW TO CONTACT US

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CASE STUDIES

Case Study 1

Achieving Retail Credit Card Profitability Through Marketing Optimization

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BACKGROUND AND CHALLENGE

- Alongside its insurance partners, a retailer offers relevant insurance products and services to its credit card database.
- Names are selected randomly at various time intervals throughout the year which result in inefficient higher marketing costs
- The challenge was to create a framework and approach that improved efficiency of its insurance acquisition marketing costs

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WHAT WE DID

Built the following models:

Upsell/Cross Sell Models by Insurance Product/Service	Contact Models	Retention

- Built a marketing contact database in order to utilize prior information based on marketing interaction.

- Allowed us to select right names with the right insurance offer and at the right time.

WHAT WAS THE RESULT?

- Below table looks at number of months of sales revenue that were required to pay back the initial acquisition costs
- Prior to any data science activity, approx. 50 months of sales revenue was the B/E point which decreased to approx. 8 months of sales revenue with our data science solutions.

Campaign	# of Leads	# of Sales	Total Cost	Cost/Sale	Avg. Prem/Cust./Month	# of Months to B/E	
1	20,000	285	$32,000	$112	$2.10	**53**	Pre Modeling
2	20,000	303	$32,000	$106	$2.34	**45**	
3	40,000	1,134	$64,000	$56	$4.17	**14**	Modeling Only
4	30,000	1,029	$50,000	$49	$4.44	**11**	
5	30,000	1,084	$54,750	$51	$4.06	**12**	
6	15,000	806	$30,446	$38	$3.89	**10**	Modeling & Contact Management
7	15,000	757	$28,442	$38	$4.79	**8**	
8	15,000	727	$26,678	$37	$4.72	**8**	
9	15,000	690	$28,064	$41	$4.10	**10**	
10	15,000	725	$27,225	$38	$5.07	**7**	

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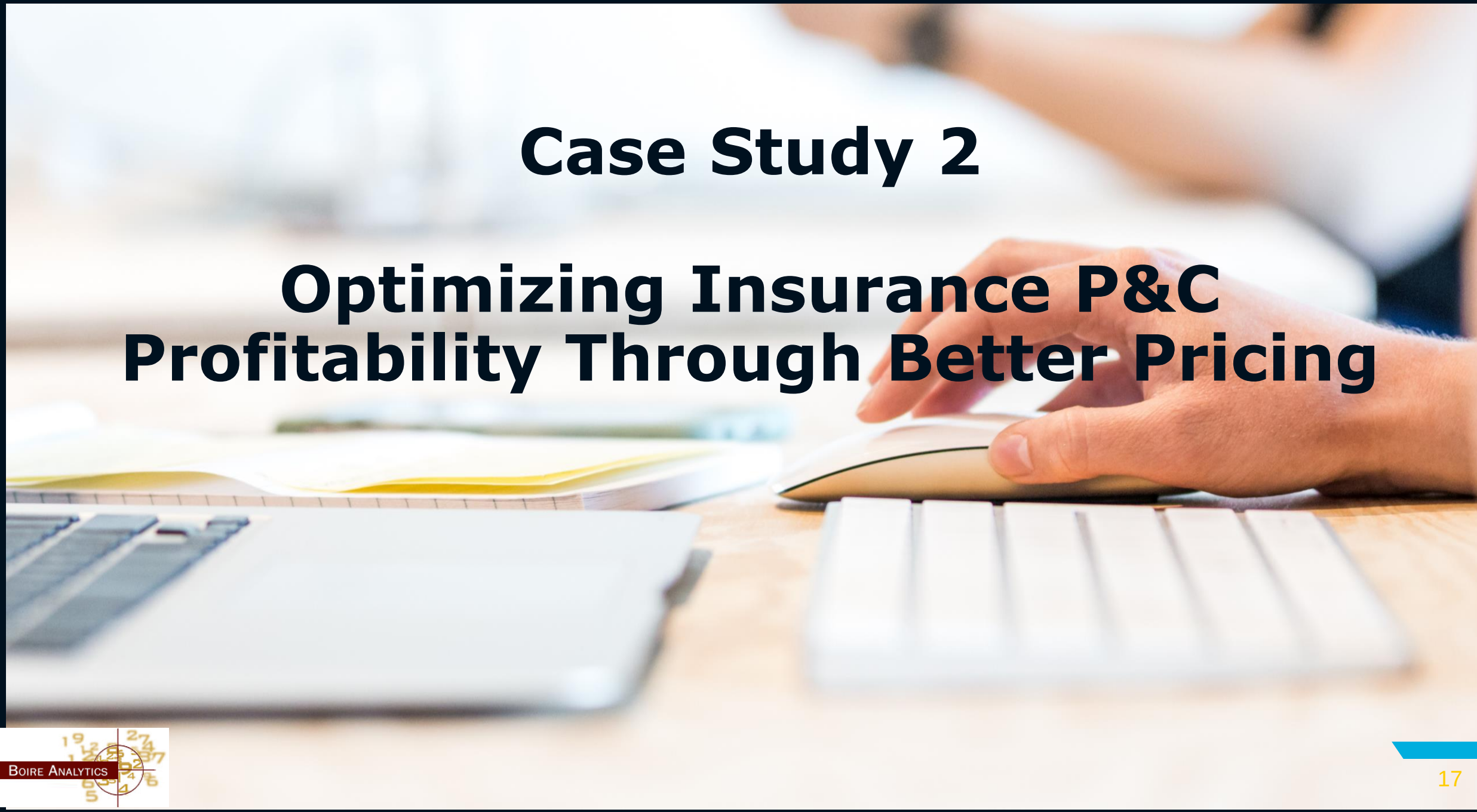
Case Study 2

Optimizing Insurance P&C Profitability Through Better Pricing



BACKGROUND AND CHALLENGE

- Client is a Direct Writer providing P&C insurance to a large member base
- The Homeowners segment of its Property insurance portfolio has performed below industry average
  - A key objective was to increase new business, but rates were inadequate
- The challenge was to build tools that could better align price with risk

WHAT WE DID

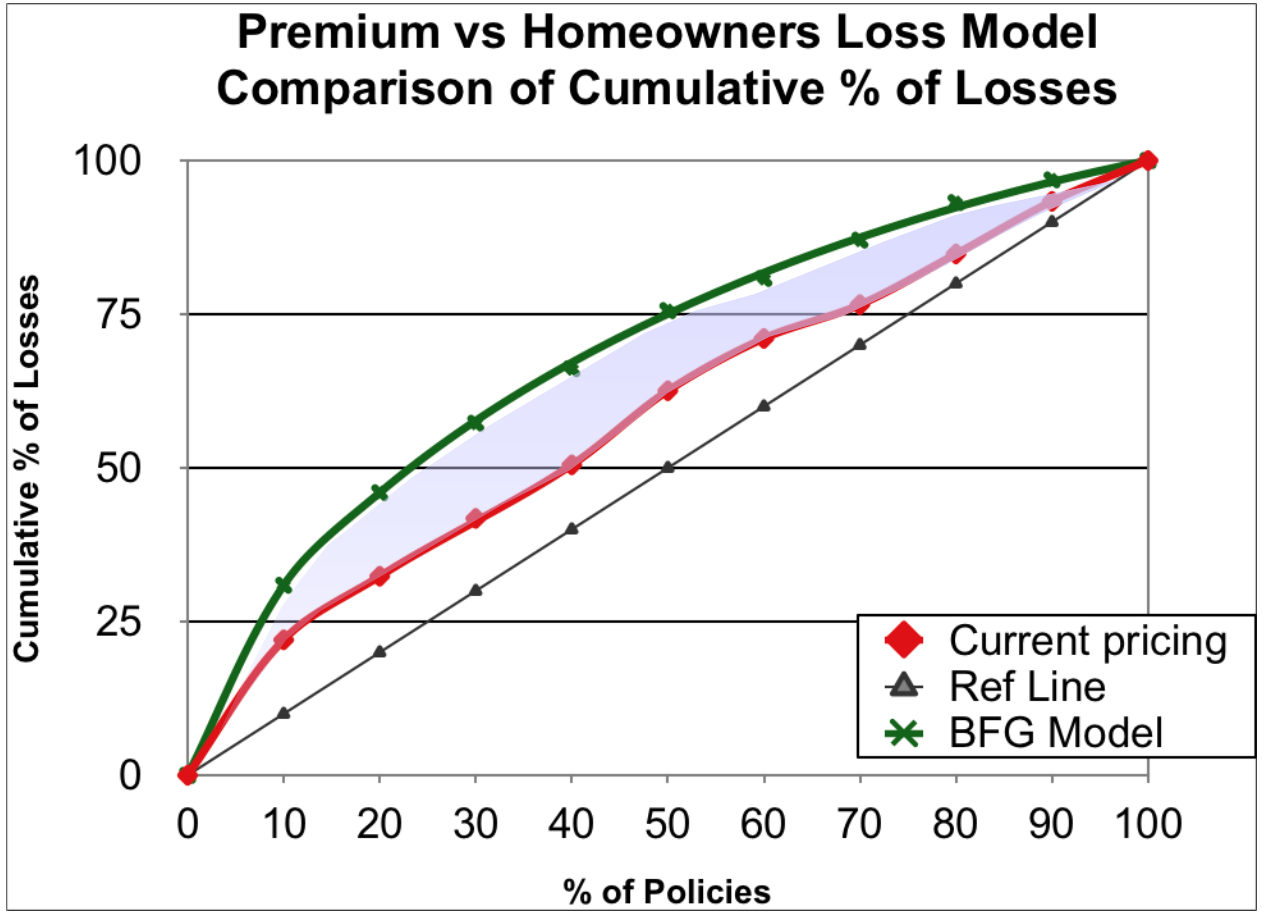
- Built expected claim loss model that could differentiate policy holders based on claim risk and claim severity.

- Some of the key model variables were:

Geographical Location	**Previous Claim History**	**Statistics Canada (socio-demographic) variables Eg. Education and Occupation**

WHAT WAS THE RESULT?

- Each Homeowners Policy was scored and ranked from highest risk (top 10%) to lowest risk (90-100%)
- The Line Chart depicts the percentage of actual losses in the portfolio as predicted by the model (green line) and the current premium (red line) being charged by the Company
- The shaded area represents the "lift", or increased accuracy in loss prediction provided by the model
- Among the highest risks, the model captures 40% more of the losses than current pricing methods



WHAT WAS THE RESULT STRATEGY?

- Loss Ratio is the amount of claim losses/premium. Listed below is a table that looks at this ratio in terms of establishing a more appropriate pricing strategy for different groups of policyholders

% of policies ranked in deciles by descending model score	Loss Ratio	Strategy
0-10%	182	increase price
10%-20%	90	
20%-30%	46	maintain current price
30%-40%	50	
40%-50%	97	
50%-60%	45	
60%-70%	86	
70%-80%	69	
80%-90%	27	reduce price
90%-100%	36	

Case Study 3

Optimizing ROI through Marketing Modelling within a Financial Institution

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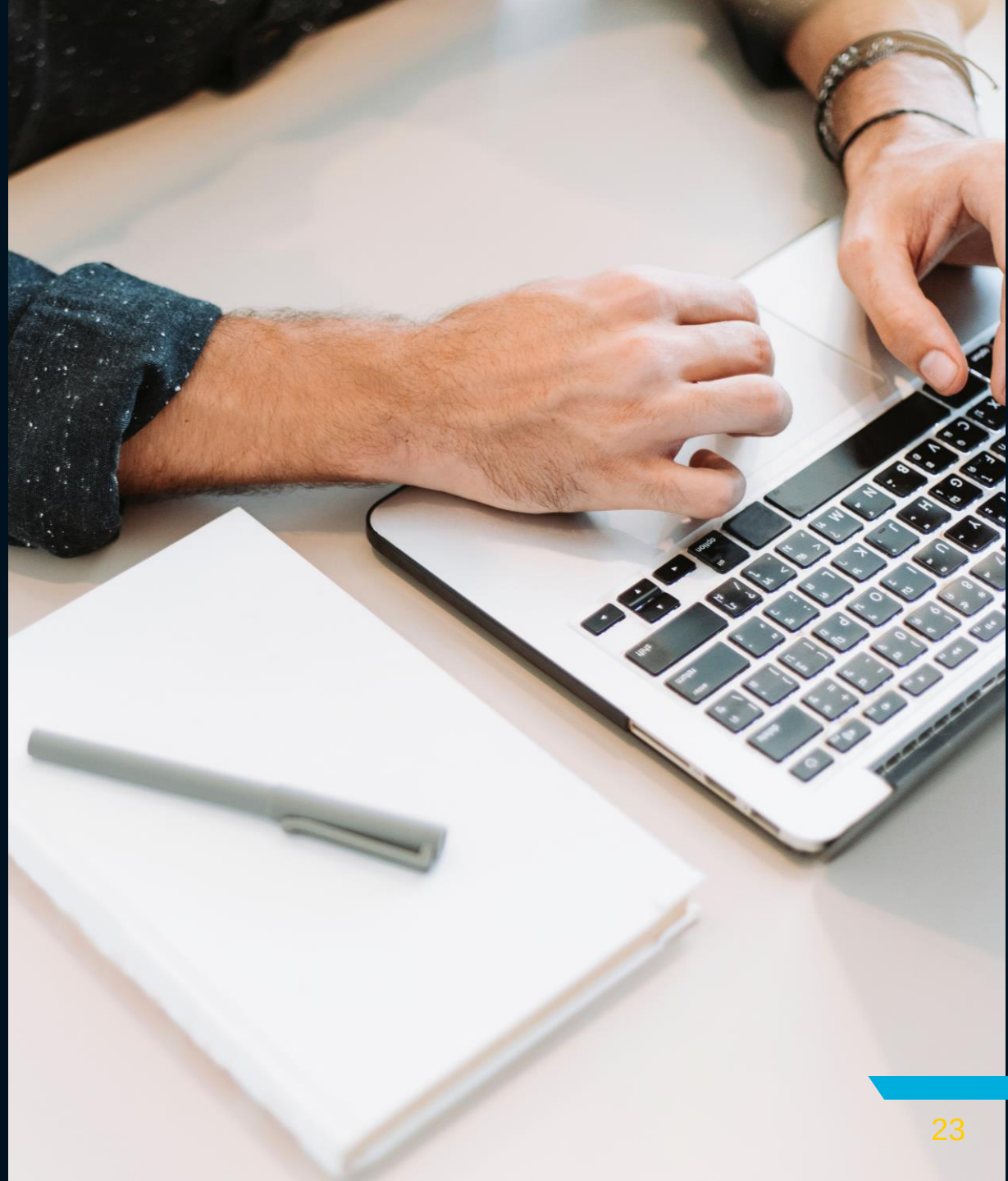
BACKGROUND AND CHALLENGE

- Marketing upsell efforts within this financial institution were becoming increasingly inefficient
- Prior strategy was to use business rules which were becoming increasingly outdated.
- The challenge was to build a model that optimized the likelihood of a person acquiring an upsell product.



WHAT WE DID

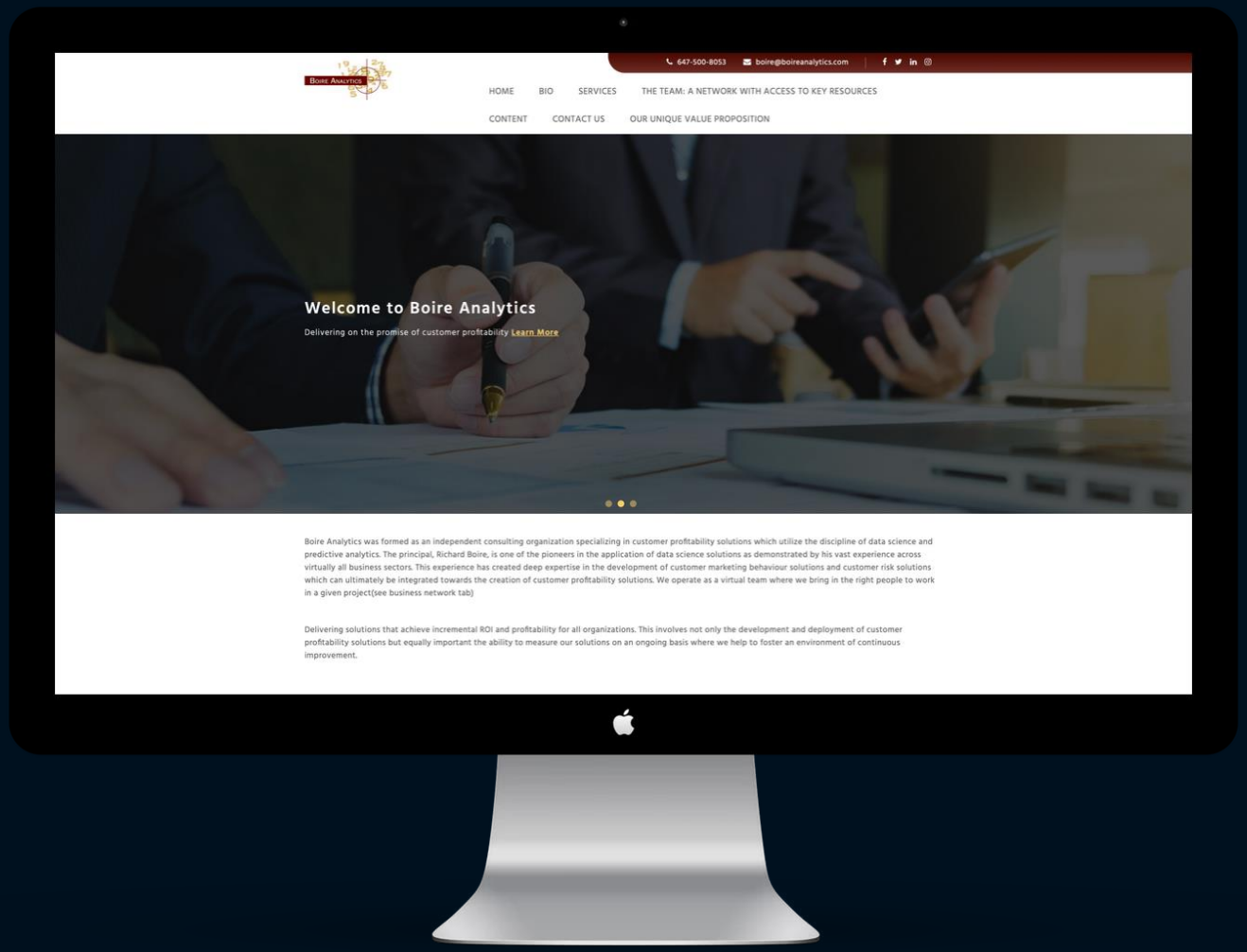
Built the upsell model that comprised the following factors:

- Behaviour Score
- Average Spend
- Have an RRSP Product
- # of Fin. Instit. Products
- Avg. % of Credit Limit Used
- Live in Prairie Provinces

WHAT WAS THE RESULT?

- Listed below is a chart where names are ranked by descending model score into quintiles
- Assumptions are:
  - $60 of incremental spend per customer
  - $.80 per marketing effort
- Top 200000 names were highly profitable(positive ROI)
- Bottom 300000 names are not profitable as attested by negative ROI.

% of List (Ranked by Model Score)	# of names promoted	ROI
0-20%	100,000	50%
20-40%	100,000	20%
40-60%	100,000	5%
60-80%	100,000	-9%
80-100%	100,000	-25%



THANK YOU

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