



Leveraging Machine Learning to Improve Lead Quality for Bank-initiated Campaigns

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Post Graduate Diploma in AI and ML
Capstone Project



110%

Conversion Rate in 2025

20,113
Monthly Leads in 2025
(105% vs. target)

PHP 398 M
TD Volume in 2025
(80% vs. target)

BUSINESS CHALLENGE

While the bank has an abundant pool of customers ripe for offering Term Deposit to get sufficient leads, downstream conversion and revenue are lagging indicating a **quality gap in acquired leads**.

QUESTION ANSWERABLE BY DATA

What customer data on demographics, relationships, transactions, behavior, and interactions can be used to **maximize the propensity to convert and enable delivery of higher campaign ROI?**



OPPORTUNITIES TO CREATE CUSTOMER AND BUSINESS VALUE THROUGH OPTIMIZING CAMPAIGN LEAD QUALITY



Reach Growth Targets Faster

With a significant boost in acceptance rate, the bank can expect that growth objectives will be met sooner, leaving more opportunity to overdeliver.



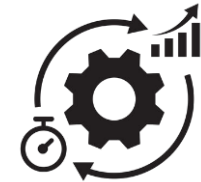
Enhance Customer Experience

Better chances that customers will find the product relevant. Less complaints from those who may find the offers irrelevant and annoying.



Optimal Use of Limited Resources

Money, time, and manpower are used to reach out to customers more likely to accept/subscribe.



Sustained Benefit

Cycle of model validation and recalibration reduces the risk of bias and can capture market or behavior shifts more effectively.

**How do we
solve and
reap the
benefits?**



CUSTOMER SEGMENTATION CAN HELP THE BANK TAILOR OFFERS BASED ON IDENTIFIED PROFILES



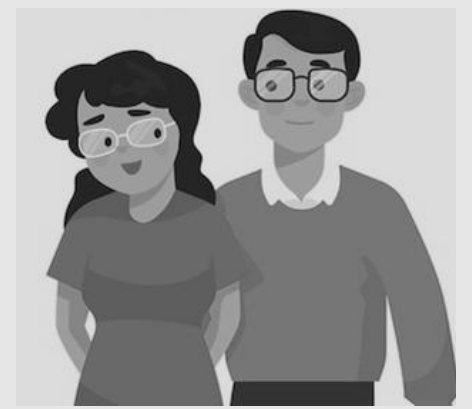
Young and Single

Age: ~30 years old
Job: Administrative
Marital Status: Single
Educational Attainment: University
Personal Loan: None



Mid to late 30s and Married

Age: ~36 years old
Job: Blue Collar
Marital Status: Married
Educational Attainment: University
Personal Loan: None



40+ Years Old and Married

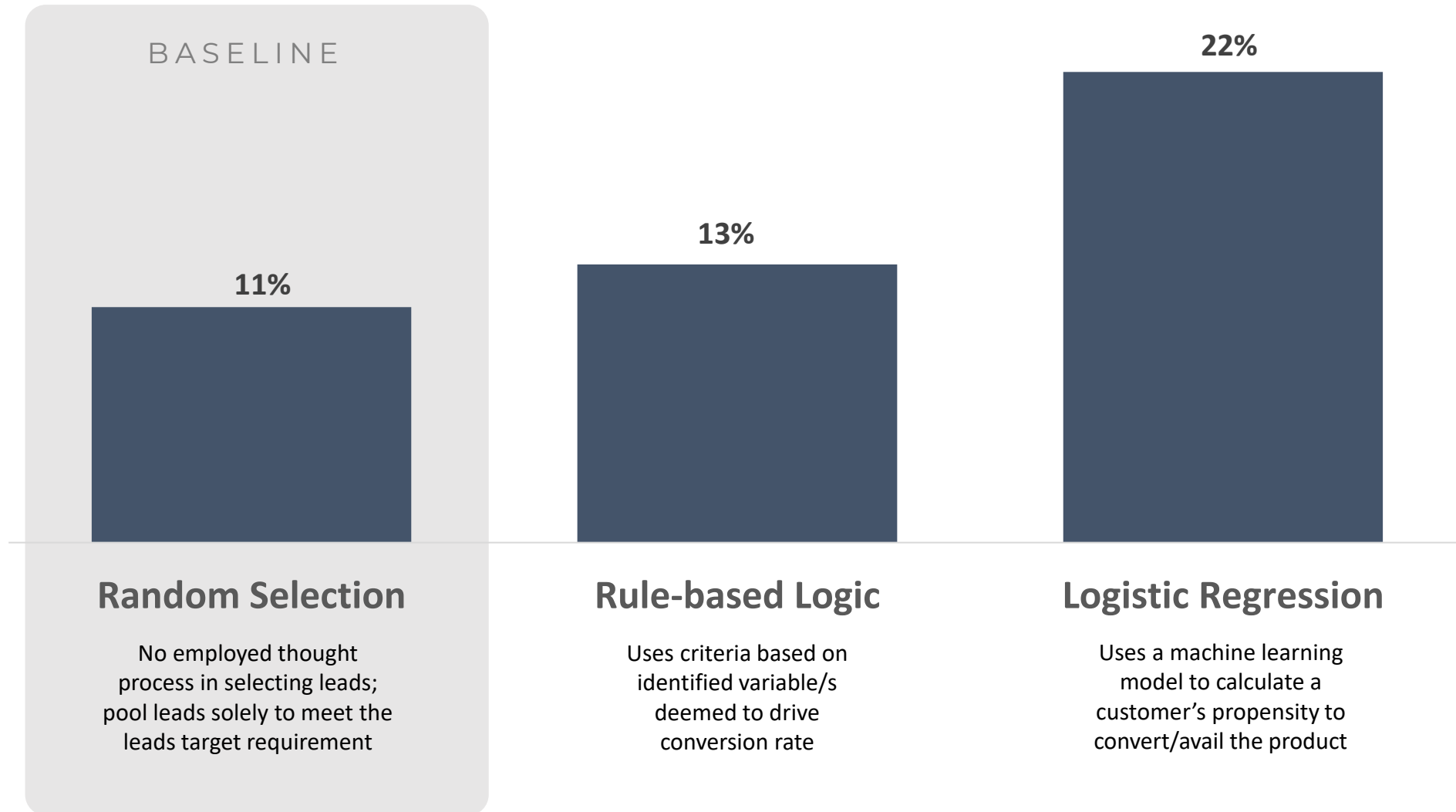
Age: ~47 years old
Job: Blue Collar
Marital Status: Married
Educational Attainment: University
Personal Loan: None



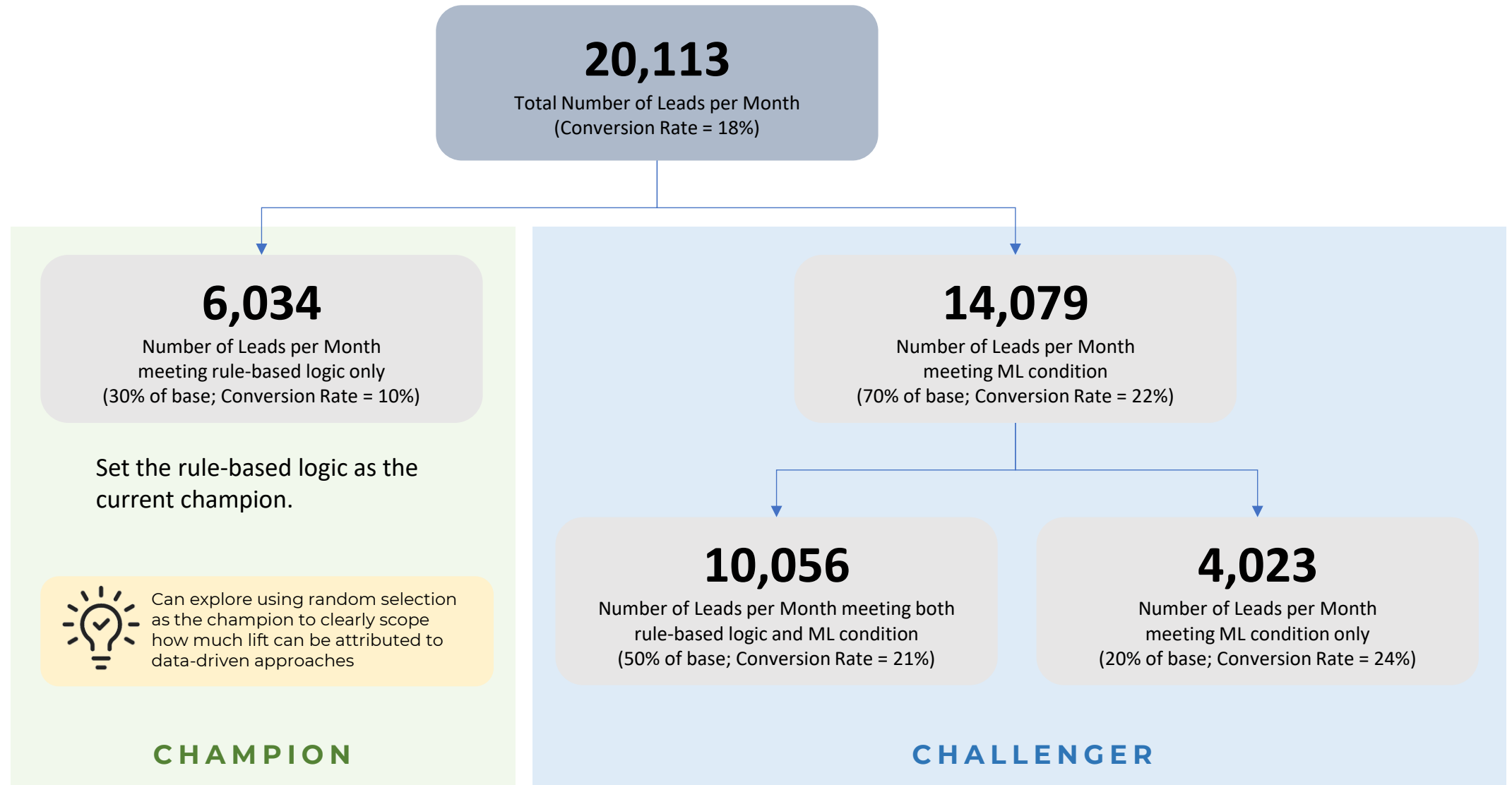
LOW-HANGING FRUIT: Given that these segments' only difference is home loan availment which also indicates higher conversion propensity, may be good to consider a Home Loan + Term Deposit Bundle Offer to selected customers

THERE IS AN OPPORTUNITY TO DOUBLE CONVERSION SUCCESS THROUGH THE USE OF PROPENSITY MODELS

CONVERSION RATE COMPARISON BY STRATEGY



RECOMMENDED LEADS GENERATION CHAMPION-CHALLENGER FRAMEWORK



BUSINESS SHOULD BE MINDFUL OF KEY CONSIDERATIONS

CAMPAIGN CONSIDERATIONS



Campaign Prioritization

Customers who register high on propensity may also be part of other campaigns; need to align on prioritization.



Contact Constraints

To avoid disengagement due to annoyance from too-frequent attempts to offer products, some customers may be in “cooling” status

RISK AWARENESS



CASA Cannibalization

For campaigns, fresh funds are preferred; need to avoid the transfer from a low-cost product like CASA to a high-cost product like TD.



Bias and Compliance Checks

Regular checks on the model should be done to ensure no unintended favorability/adverse bias creeps in. Need to ensure compliance to regulatory body protocols.



GOAL IS TO HAVE THE ALWAYS-ON CAMPAIGN UP AND RUNNING AFTER TWO MONTHS

CAMPAIGN EXECUTION PROPOSED TIMELINE

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10
Business Unit / Product Owner										
Finaliza Program Paper										
Secure necessary permits										
Finalize campaign offer spiels										
Conduct sales/offer training										
Campaign launch support										
Data and Analytics Office										
Gather necessary data										
Data validation and cleaning										
Model development (or recalibration)*										
Provide leads list (champion-challenger framework)										
Set up campaign performance tracker										
Early read on campaign performance										

* Assumes there is a usable base model to meet a shorter one-month timeline



18%

Improved Conversion Rate*



20,113
Monthly Leads
(105% vs. target)



PHP 652 M
Estimated TD Volume
(130% vs. target)

* Based on blended conversion rate under the recommended framework