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PROBLEM OVERVIEW

About MassMutual

MassMutual is a mutual life insurance and financial services company that supports financial professionals with protection, planning, and investment solutions.



5600+
Financial
Advisors



55+
Firms &
Agencies



2.1M+
Served
Customers

MassMutual **Wholesalers** are responsible for connecting the right **Financial Advisors** with the right campaigns and products to boost sales; We aim to build an intelligent tool for the Wholesalers.

Core Challenges



Critical signals are fragmented across disconnected data sources



With limited outreach and training capacity, manually identifying the most relevant advisors is slow and difficult to adapt as business priorities change



No segmentation filters exist to differentiate advisors by use cases

USE CASES & BUSINESS



Term-to-Perm

- When a term Life insurance policy has a conversion privilege: the policyholder can upgrade to a permanent Life policy
- Identify advisors with large pools of eligible, unconverted term policies.



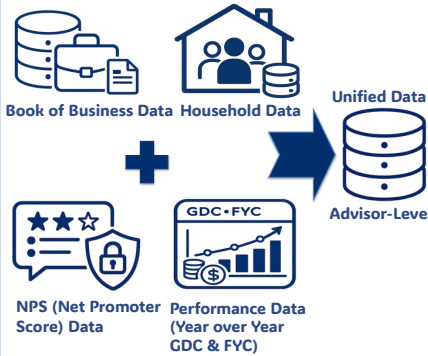
Guaranteed Insurability Rider

- A policy rider that grants the policyholder the right to purchase additional coverage at future dates (marriage, birth of child, income milestone) without proving insurability

Given a specific business opportunity, how do we surface the right financial advisors in seconds, not hours?

METHODOLOGY

DATA INTEGRATION



SEGMENTATION & KPI DESIGN

1. Build KPIs: A total of 86 filters and KPIs were developed, of which approximately 20 were derived using a methodology comparable to the one illustrated below, which classifies advisors as either protection-focused or investment-focused.

TWO-LENS APPROACH

1. Lens 1 — Sales Angle (Revenue Mix)

- Uses 3-year average FYC and GDC to compute a revenue mix ratio
- FYC (First Year Commission): earned from new protection product sales (WL, DL, Term) — one-time at policy issue
- GDC (Gross Dealer Commission): earned from wealth management / investment activity — recurring, AGM-based trails

$$RevMix_{t,y} = \frac{FYC_{t,y}}{FYC_{t,y} + GDC_{t,y}} = \frac{FYC_{t,y}}{FYC_{t,y} + GDC_{t,y} + \dots}$$

Classification thresholds:

- ≥ 55% → Protection
- ≤ 30% → Investment
- Between → Hybrid

COMBINING THE TWO LENSES

- ✓ If both lenses agree → Use that label (high confidence)
- ✗ If one lens has no data → Fall back to the other
- ⚡ If both disagree → Label as Hybrid

2. Lens 2 — Book Angle (Customer Composition)

- Uses customer-level counts across product lines to compute a protection-to-investment ratio
- Protection customers: WL holders + DL holders + T2P eligible term policyholders
- Investment customers: WM / annuity customers

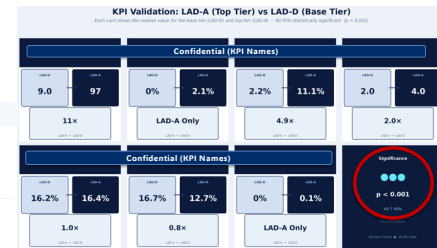
$$Prot_Score_t = \frac{WL_Cust_t + DL_Cust_t + T2P_Elig_Cust_t}{WM_Cust_t + Annuity_Cust_t}$$

Classification rule:

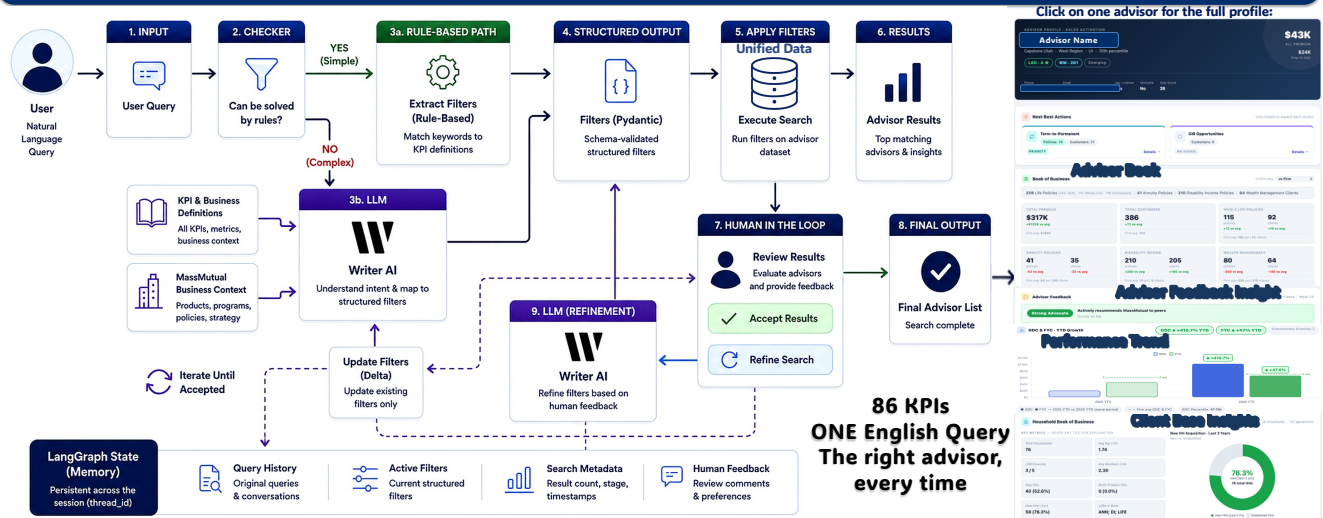
- Prot_Score ≥ 2x WM_Cust → Protection
- Prot_Score ≤ 1x WM_Cust → Investment
- Between → Hybrid

2. Validate KPIs:

- Cross-segment comparison across more granular segment LAD tiers (A → D) using median KPI value
- Kruskal-Wallis non-parametric test applied to all 20 derived KPIs, all return $p < 0.001$, confirming statistically significant separation



DASHBOARD WORKFLOW DESIGN



RESULTS & BUSINESS IMPACT



~91%
Less Pre-outreach
Preparation Time



~94%
Query Accuracy
Tested on 200 Queries



~\$0.79M
Labor Cost
Recaptured / Yr



~\$23M
Incremental Additional
Revenue Potential

2-3 Month Faster Campaign Deployment | Faster Advisor Discovery | 1-2% Sales Lift | Simplified Wholesaler Planning

Revenue Estimates are illustrative and based on high-level assumptions that are subject to change.

FUTURE WORK

- More Sales Use Cases:** T2P and GIR are the initial two scenarios; the framework is use-case agnostic. Additional campaigns can be onboarded by defining new KPI filter rules
- Real-Time Re-Segmentation:** Advisor classifications currently use a static snapshot. Dynamic Update.
- Personalized Ranking:** The LangGraph memory layer currently tracks session history. A persistent preference model trained on each wholesaler's accept/refine decisions would progressively tune advisor ranking toward individual campaign styles.