RS Next Best Action

Enterprise Analytics Office

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Nationwide®

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Project Overview

Retirement Solutions has successfully grown sales recently. The goal of this project is to capitalize on the momentum by providing the Distribution team with additional broker dealers who may be likely to sell through Nationwide.

To iteratively grow capabilities, the project is broken up into two phases; 1) find the broker dealers, 2) customize actions.

Phase 1 – **Broker Identification**

– Explore methods effective at identifying retirement solution broker-dealers within an external dataset (Discovery).
– With the appropriate subset of broker dealers,
  - Analyze the features of broker-dealers who have interacted with Nationwide, win or loss (via Salesforce).
  - Use the learned features within a baseline classification model, identifying new broker dealers (via Discovery).

Phase 2 – Activity Recommendations

– Understand the wholesaler and/or marketing activity sequences which often produce won opportunities.
  - Use a model to recommend marketing and/or wholesaler activities for identified brokers, at the appropriate time.
– Depending on the needs and preferences of brokers, utilize Judy Diamond data to learn more about the RS plans.

Data Overview – Discovery

External Source

What we have:

- Discovery data has information about individual broker dealers and RIAs (~38k advisors, updated weekly).
- Most of the broker dealers have not interacted with Nationwide before.
  - Includes employment, firm, and location history
  - Includes license and certification history (per FINRA)
  - Additional self-disclosed information is available, but will be tested for accuracy (e.g., ‘sells RP indicator’ [see appendix])

How can we use:

- License(s), employment history, and field of industry may be helpful to determine if an advisor is eligible to sell certain products, and then the likelihood of Nationwide’s success.
- We can appropriately layer in demographic information as supplementary information for wholesaler use.

Status:

- Julia has worked with Allen to filter out some of the features and appropriately fill in the missing information.
- Explored the Discovery data to find 428 brokers with Salesforce opportunities (RP) out of thousands of broker dealers in Discovery;
  - some derived or self-disclosed indictors presented in the Discovery Data may not accurate.
    - For example, ’SELL_RP_IND’ and ’KNOWN_NON_ADVISOR_IND’ data are often ‘no’, but the broker has sold a plan through NW.

Data Overview – Salesforce

Internal Source

What we have:

- Salesforce data includes Nationwide tracked opportunities and activities.
  - For this model, the data will target opportunities with a ‘date of closing’ between the years 2023 and 2024.
  - Transaction-level ‘case’ data (issues, calls, requests, etc.)
  - Transaction-level wholesaler activity data and/or marketing activity data

How can we use:

- Opportunity history and Nationwide interactions with broker dealers helps describe individual sales experiences.
  - Segmenting won vs. lost opportunities may allow for the definition of contextually-specific strategies to successfully apply to future opportunities.

Status:

- Successfully joined Salesforce data with Discovery data using the broker’s CRD (see appendix).
- Found out that some brokers with ‘SELL_RP_IND’ = Y in the Discovery data have only sold Nationwide annuities before.

Data Overview – Judy Diamond

External Source

What we have:

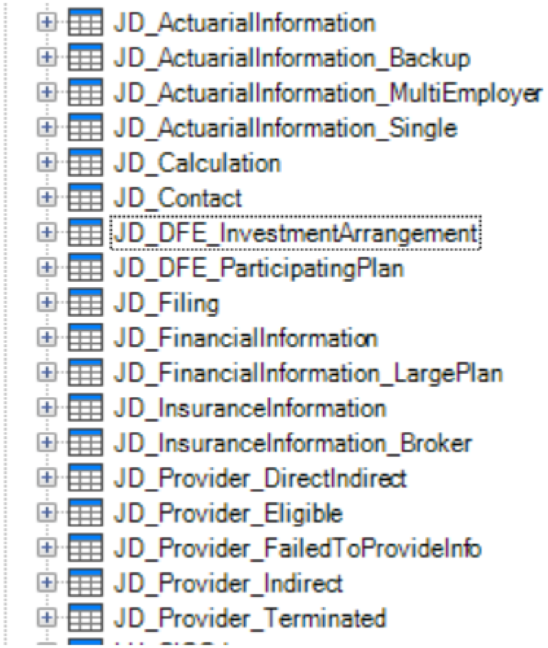
- Judy Diamond data is an in-depth collection of Form 5500 data, describing a 401(k) plans' financial condition, plan qualifications, etc.
  - This data includes FillingID, BrokerID, etc. values which are specific to Judy Diamond.
  - Plan, broker, contact level information might be useful for generally detailing prospects.

How can we use:

- Plan level information may offer insights into the type of business Nationwide has historically had an opportunity to win.

Status:

- Judy Diamond does not contain common industry broker dealer identifiers (e.g., CRD).
  - Julia has tried to use the broker dealer's name to join Judy Diamond with Discovery:
    - Many people with the same 'Full_Name' have different 'BrokerID' values.
    - The 'Full_Name' values comingle broker dealer names with firm names.
  - Broker information likely cannot be joined directly from Judy Diamond to other data sources.



Proposed Strategy Overview

Goal:

Build a binary classification model that identifies advisors who are likely sell NW retirement solution product(s).

- Does the timing of the future sale matter (e.g., sell within the next 9 months)?
- Are we comfortable with how the universe of brokers in Discovery will be narrowed down to those who likely can sell RP?

Proposed Baseline Model:

Semi-supervised model to produce a list of recommended broker dealers who are likely to sell Nationwide Retirement Solutions.

1. Develop a baseline classification model based on Salesforce opportunity history.
2. Incorporate a clustering segmentation method into the baseline model to improve accuracy and generalize.
3. Layer in Judy Diamond information, such as plan information, to help personalize lead recommendations.
   - Refine the model(s) based on the success rate (won opportunities) of affected wholesalers.

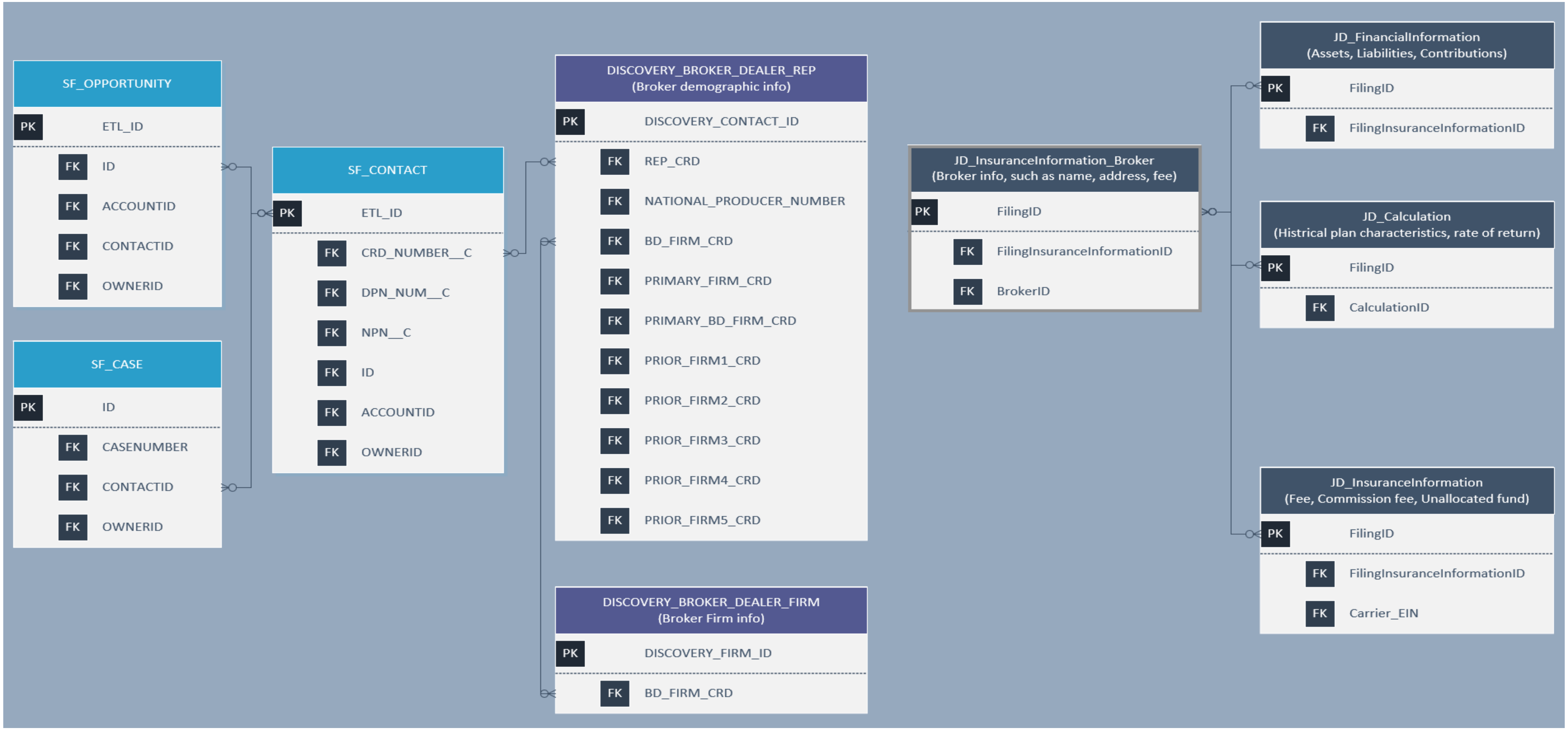
Considered Stretch Model:

Graph (aka. network) model to organize the interconnected actors (e.g., brokers, plan sponsors) and group sales activities.

- A community of people, companies, and activities naturally describe needs and sales behavior.
- If a network is established, the recommendations from NW related Broker Dealer can be sent from the source node to the destination node (e.g., appointed broker has sold Nationwide Group Pet policy and has network ties to others selling NW Retirement Solutions).

Appendix

Database Tables and Broker Identifiers



Filtering Discovery Data

Of the retirement plans won during 2024 (Salesforce Opportunities), the association between Salesforce contacts and Broker Dealer records in Discovery produce;

- 2 brokers are listed have a ‘SELL_RP_IND’ = ‘Y’,
- none are listed as a RP Specialist, and
- 1 broker is no longer registered in FINRA.

SALESFORCE (2024 Won Opportunities, Most Recent as of 3/11/2024)					FINRA (when needed for IA identification)
PLAN_NAME	PRODUCT__C	AMOUNT	CONTACTID	CRD_NUMBER__C	PREVIOUSLY_REGISTERED_BROKER
Health Max 5th Ave Inc.	Flexible Advantage	$0	0031M00003A1kPCQAZ	5818236	FALSE
Corona Optometry	Flexible Advantage	$950,000	003G0000028xqeSIAQ	1170617	FALSE
Jewish Community Homes for Adult Independence, Inc.	Flexible Advantage	$500,000	003G0000028x7h9IAA	732640	TRUE
Village Computer	Flexible Advantage	$0	003G0000028xc9WIAQ	1915936	FALSE
Holmes Pools LLC	Flexible Advantage Foundations	$100,000	0033q00003lVBcAAAW	2692905	FALSE
Ace Forwarding (TRION)	Flexible Advantage	$1,250,000	003G0000028x43lIAA	2285454	FALSE
Renew Family Dermatology, LLC	Flexible Advantage Foundations	$0	003G0000028xvx1IAA	2486397	FALSE
Blumarts Inc.	Flexible Advantage	$0	003G0000028xB6aIAE	1680169	FALSE
Caesar’s Bagels & Deli	Flexible Advantage	$0	003G0000028xzZRIAY	5544173	FALSE
UVA on Main	Flexible Advantage	$200,000	003G0000028xvzvIAA	2237629	FALSE
JMC Operations LLC	Flexible Advantage	$0	0033q00004UaTfXAAV	7511179	FALSE

DISCOVERY (loaded 3/2/2024)							
TITLE_CATEGORIES	BD_FIRM_NAME	SUCCESS_LIKELIHOOD	LICENSES_DESIGNATIONS_LIST	KNOWN_NON_ADVISOR_IND	SELL_RP_IND	CERT_FIN_PLANNER_IND	TITLE_RP_SPECIALIST_IND
Advisor	Park Avenue Securities LLC	Lower	6 , 7 , 63 , 66	N	U	U	U
Advisor	Hornor, Townsend & Kent, LLC	Higher	6 , 63 , AEP , ChFC , CLU	N	U	U	U
Advisor	M Holdings Securities, Inc.	Higher	6 , 26 , 63 , 65 , ChFC , CLU , LUTCF , RICP , CLTC	N	U	U	U
Advisor, Insurance Agent	NYLIFE Securities LLC	Lower	6 , 63	N	U	U	U
Advisor	Ameriprise Financial Services, LLC	Higher	7 , 63 , 65	N	U	U	U
Advisor	Ameriprise Financial Services, LLC	Higher	7 , 63	N	U	U	U
Unknown	Western International Securities, Inc.	Higher	7 , 63 , CFP	U	Y	Y	U
Advisor	MML Investors Services, LLC	Higher	6 , 7 , 24 , 26 , 51 , 63 , 66	N	U	U	U
Unknown	Cetera Advisor Networks LLC	Higher	6 , 7 , 63 , 65	U	Y	U	U
Advisor	LPL Financial LLC	Lower	7 , 66	N	U	U	U

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