



Cognizant

Enabling Underwriting through advanced data analytics

Bridging the gap between in
pricing



Meeting with you today are..

Speakers



Pankaj Parasar

Global Insurance Head of Sales
Cognizant technology Solutions

Pankaj is responsible for managing growth for North American Insurance Business Unit. He believes that North American Insurance market is at a point of inflection. As the power of digital expands across the enterprise, newer revenue models and acquiring newer demographics like millennials rather than cost and labor arbitrage will be more important drivers of transformation programs. He lead teams focused on helping clients identify untapped opportunities as they reevaluate their current strategies and partnerships.



Yash Yedavalli

Data Science & Analytics Lead
Cognizant technology Solutions

Yash is responsible for the development of analytics products with extensive experience in leveraging 3rd party datasets. He has over 14 years of experience in Management Consulting, Analytics Strategy – Roadmap & Benefit Case Development. He also leads our Geo-Spatial Analytics group for NA and has worked with several insurance clients helping them with Sales & Distribution, Agency & Commissions, NB UW, Business Process Reengineering.

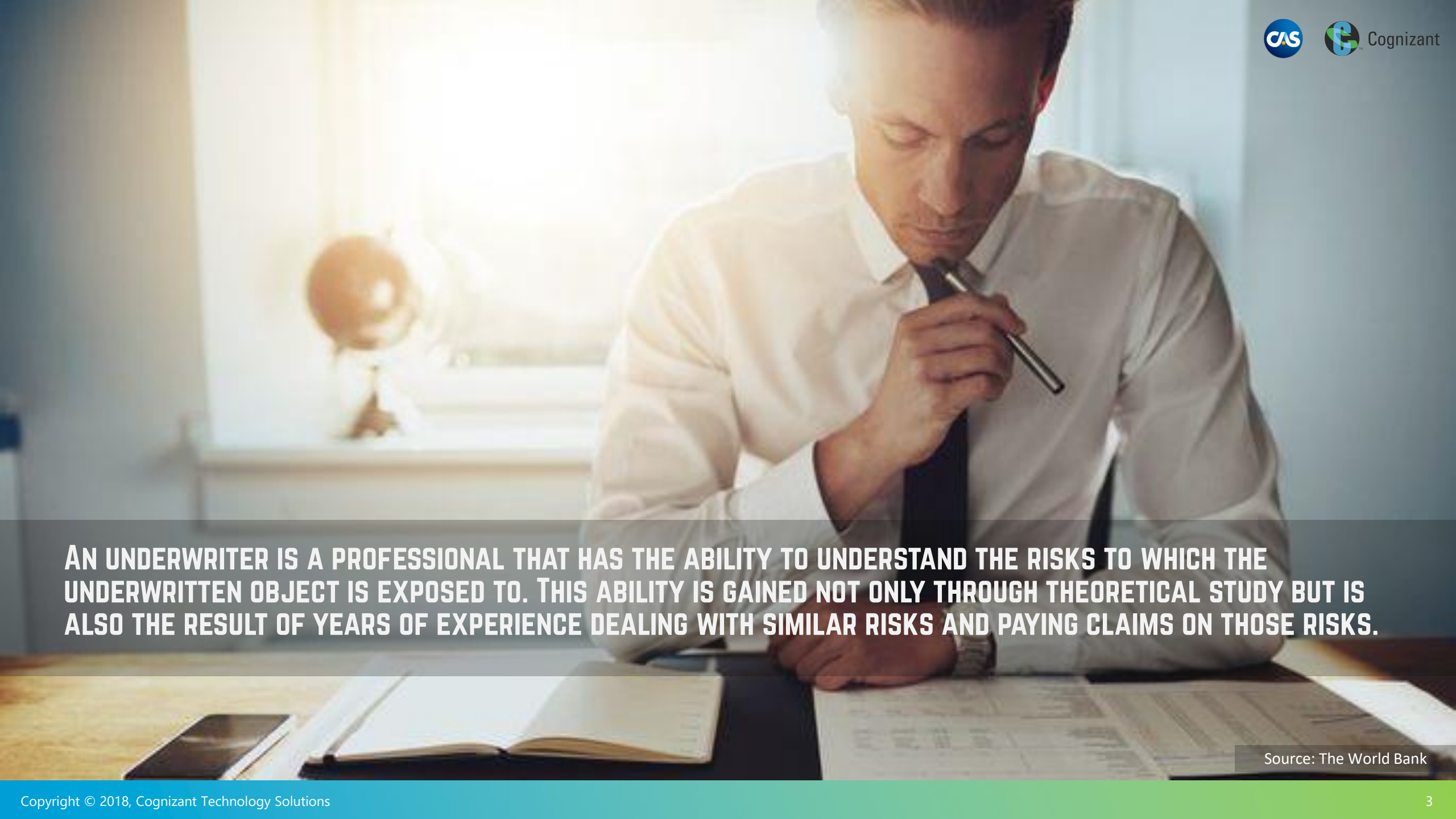
Moderator



Rob Galbraith

Director of Underwriting Research
USAA

Rob Galbraith is a Director of Underwriting Research at USAA where he leads a high-performing team of professionals focused on writing profitable risks in catastrophe-prone areas of the US. Rob's passion is finding ways to provide insurance products to all who have a need efficiently through innovative approaches, building strong relationships with a wide variety of people from a variety of disciplines, and educating customers on the risks they face and inspiring them to take action to strengthen their resilience.



AN UNDERWRITER IS A PROFESSIONAL THAT HAS THE ABILITY TO UNDERSTAND THE RISKS TO WHICH THE UNDERWRITTEN OBJECT IS EXPOSED TO. THIS ABILITY IS GAINED NOT ONLY THROUGH THEORETICAL STUDY BUT IS ALSO THE RESULT OF YEARS OF EXPERIENCE DEALING WITH SIMILAR RISKS AND PAYING CLAIMS ON THOSE RISKS.

Source: The World Bank

Changing role of underwriters

With an increased focus on enhancing Customer Experiences and digital strategy, Insurers are turning their attention to underwriting. Insurers are realizing that there is great value in modernizing the UW underwriting function and leverage it toward more strategic digital goals.



RISK ASSESSMENT & PRICING

Determination of the class (such as preferred, standard, or substandard) to which a particular risk is deemed to belong, its acceptance or rejection, and (if accepted) the premium rate.

SUPPORT SALES FUNCTION

Growing the book of business, increasing retention rates, building relationships, lead generation and prospecting

DATA SCIENCE

Data-driven decision making at the account and portfolio levels, risk insight, profitability analysis, predictive modeling of pricing, and risk evaluation

CUSTOMER ADVOCACY

Improving the customer and agent experience, coordinating account services (loss control, claims, education) to mitigate risk exposures and strengthen customer loyalty

INNOVATION

Creative problem solving, new product and service development

◆ Traditional Roles

New Roles ◆

Source: Findings from the EY-CPCU Society underwriting survey

To excel in these new roles, underwriters have to deal with new challenges



DATA DELUGE, NOT ENOUGH INSIGHTS

- Underwriters does not have all of the data they need to effectively and consistently analyze and accurately price risks quickly
- Lack of pre-built data connectors within the underwriting management systems to get a 360 view of risks, costs insurers in both expense and potential lost opportunities



INABILITY TO TRULY UNDERSTAND MARKET DYNAMICS

- Inability to tap into local market insights
- Inability to do root cause analysis to understand portfolio performance metrics
- Inability to proactively manage business problems through advanced analytics

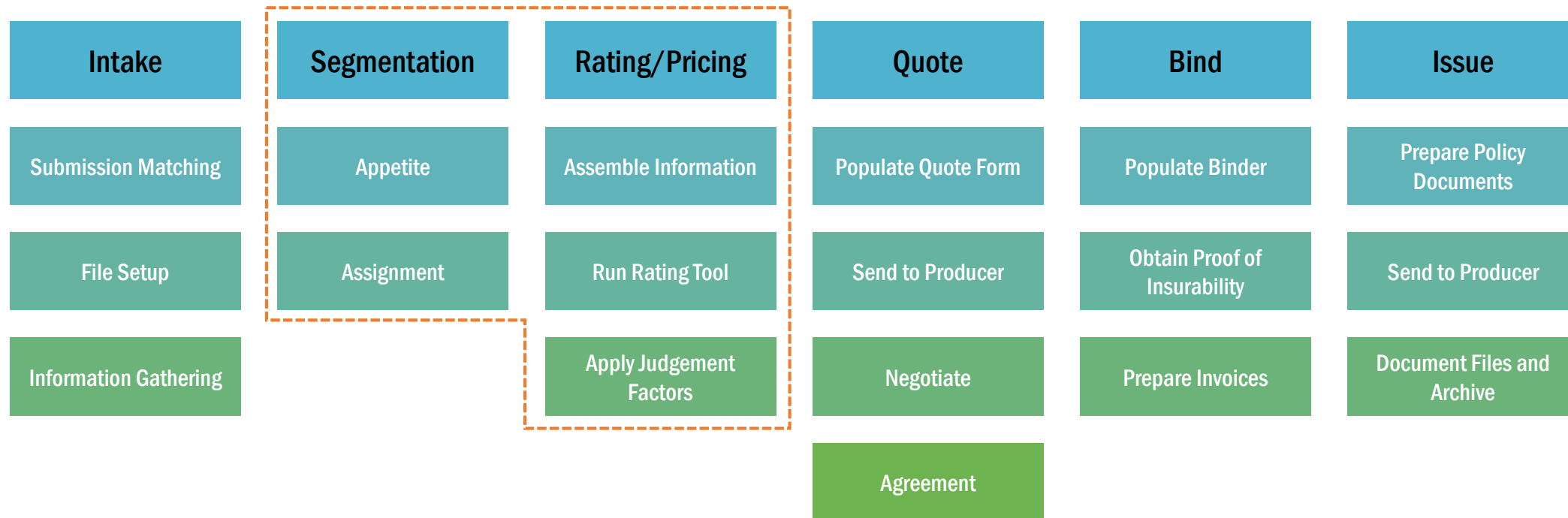


GROWING EXPECTATIONS

- Inability to extrapolate data to align with Marketing and Financial portfolio underwriting.
- Inability to be proactive when it comes portfolio underwriting management
- Lack of holistic view of Internal and External data impacts ability to make better decisions

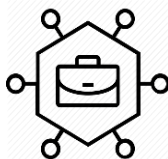
Where data and analytics can help underwriting value chain

Data analytics is revolutionizing underwriting as vast amounts of real-time digital data is now available through a variety of data sources including social media and connected devices. These data sets can be monitored and analyzed for specific trends and patterns. These insights can help customize the policy offerings and determined underwriting decisions based on real-time and historical data sets.

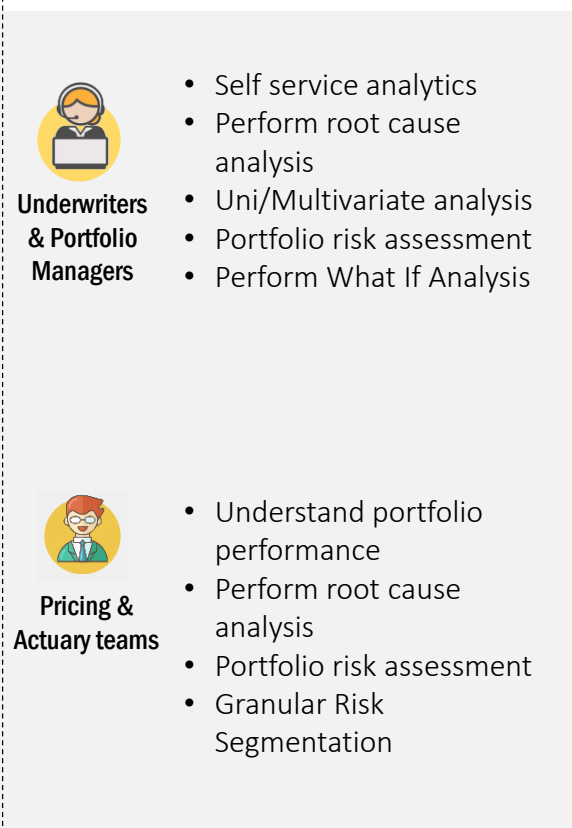
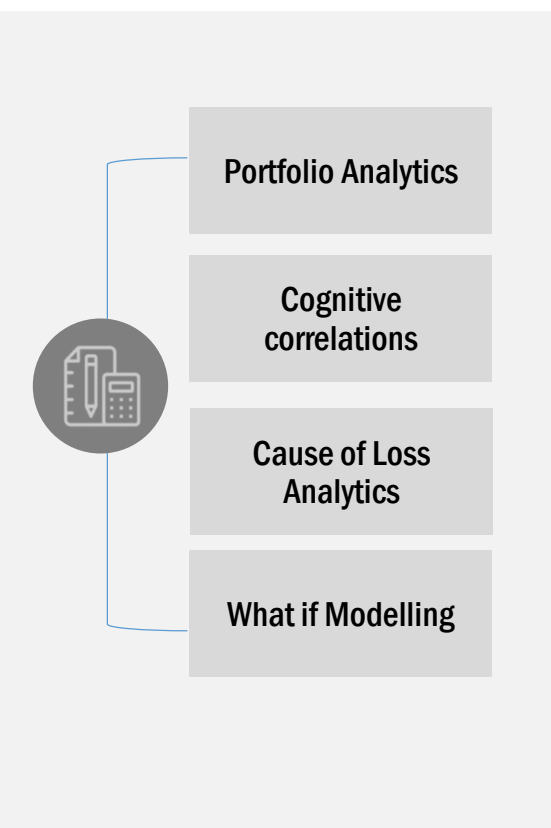


An Integrated approach to better insights for underwriting

Approach to Making AI/Cognitive intelligence solution for underwriting



Submission Documents	Internal Information	External Information
Applications	U/W Guidelines	Demographic Information (e.g. Acxiom, Esri)
Field UW Notes	Loss Experience	Risk Indices (e.g. RMS, Verisk, NOAA)
Questionnaire Data	Rating Factors	Social Media (Reviews, etc.)
Producer Correspondence	Underwriting Notes	Business' Credit Rating
Agent's Report	BI Reports & Models	Reference Data (e.g. Clue)
Consent Forms	Previous Submissions	Other 3rd Party UW Information



Portfolio Insights for Home Office and Field Adjusters

Background

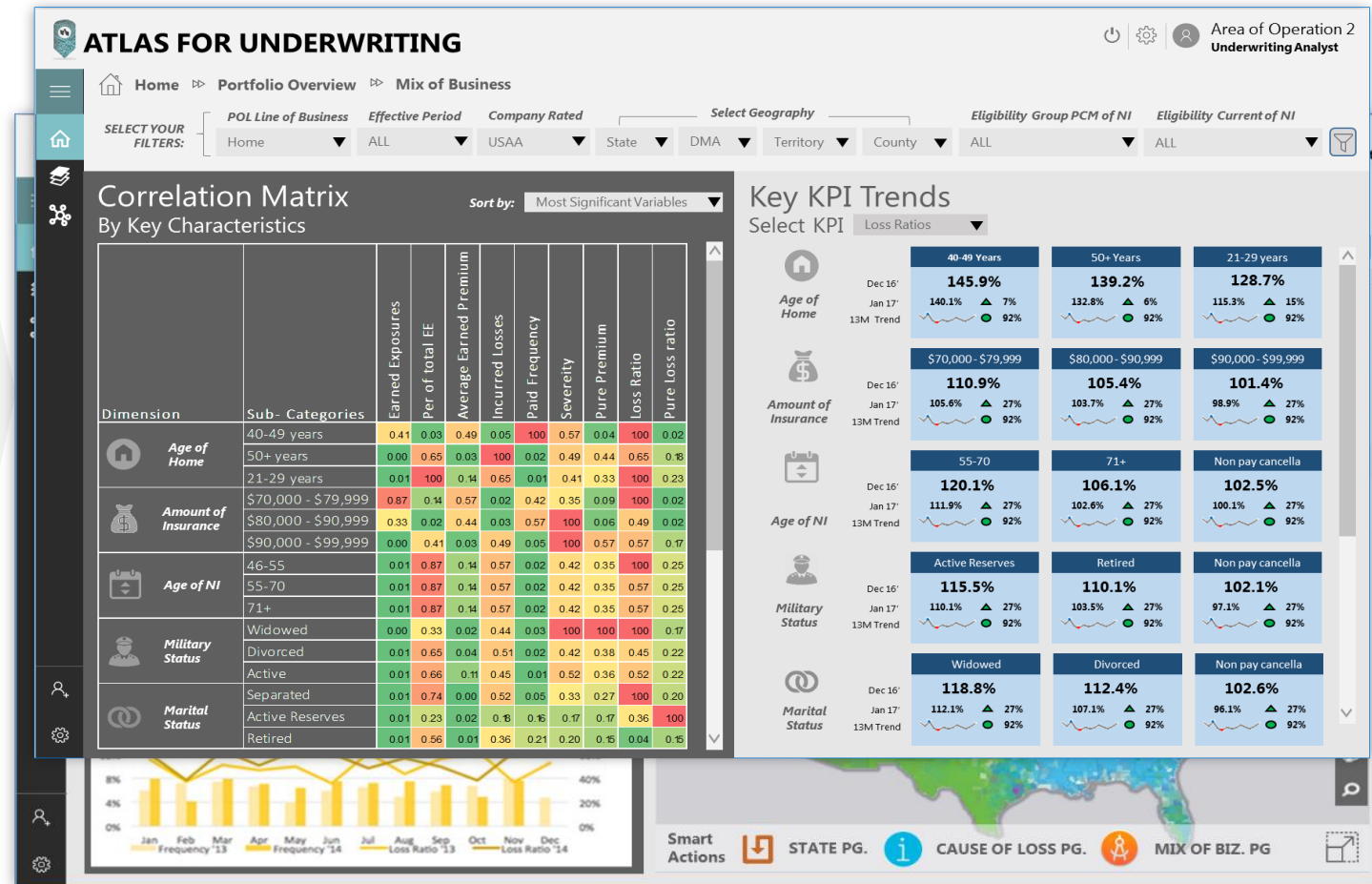
- ❑ Need to share information across the board for field adjusters and U/W teams
- ❑ Understand historical claims and causes
- ❑ Overlay several sources of information

Solution Features

Risk indices	Layered Data	(Max Prob) Loss predictions
Historical Claims	Historical Losses	Past Event tracking
Current Weather tracking	Information sharing	Key KPIs

Business Benefits

- ❑ Understand Portfolio performance
- ❑ Ability to use cognitive technology to discover correlations that exist within data sets and test hypotheses quickly
- ❑ Provide critical feedback to pricing teams



Perform the **cause of loss analysis** to reduce your time market

Background

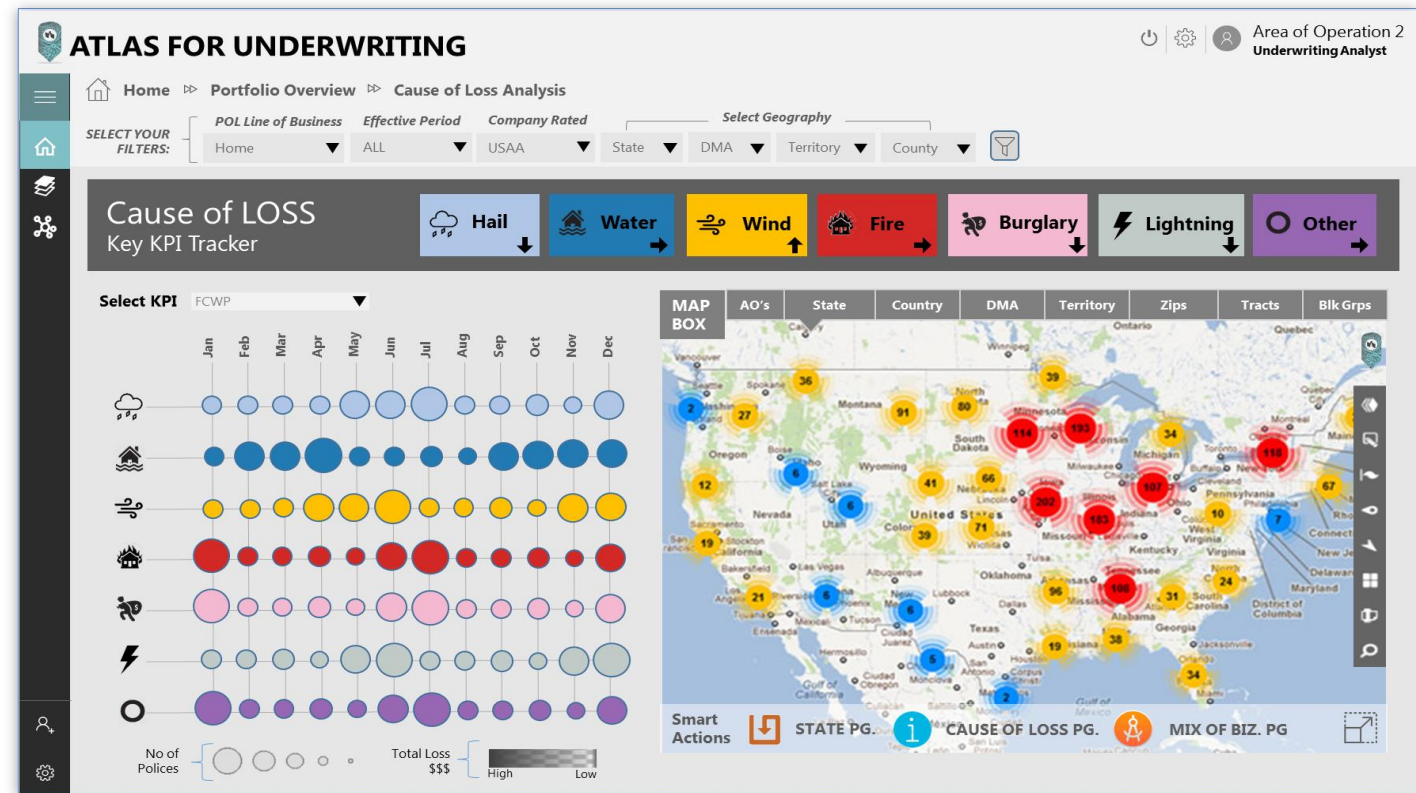
- ❑ Ability to layer weather and event information on your portfolio and compare with loss development patterns from the past
- ❑ Ability drill down to cause-effect relationships of events and losses

Solution Features

Clustering	Heat Maps	Key KPIs
Weather Events	Historical Losses	Past Event tracking
Current Weather tracking	Information sharing	Key KPIs

Business Benefits

- ❑ Understand the reason behind loss experience.
- ❑ Avoid tedious data exploration studies reducing time to market
- ❑ Ability to understand changes in risk profiles so that pure premium or experience based pricing can be improved



What-IF simulator enables you to understand the impact of your decisions

Background

- ❑ Need to share information across the board for field adjusters and U/W teams
- ❑ Understand historical claims and causes
- ❑ Overlay several sources of information

Solution Features

Risk indices	Layered Data	(Max Prob) Loss predictions
Historical Claims	Historical Losses	Past Event tracking
Current Weather tracking	Information sharing	Key KPIs

Business Benefits

- ❑ Reduce losses, loss ratio & questionable claims
- ❑ Increase premium per customers/households
- ❑ Improve risk profiling capability at NB UW
- ❑ Increase profitability in the long term

ATLAS FOR UNDERWRITING Area of Operation 2 Underwriting Analyst

Home » What if Simulator

RISK PULL Query Builder

SELECT YOUR FILTERS:

- POL Line of Business: Home
- Effective Period: ALL
- Company Rated: USAA
- Select Geography: State, DMA, Territory, County

SELECT MEMBER CHARACTERISTICS:

- Member: NONE
- Dwelling: Older than 50YRS
- ALI: <100K
- Loss Ratios: >100

Pull Data

Policy	# of paid claims in past 36 month	# of paid claims in past 90 days	Frequency	Severity	Pure Premium	Loss Ratio	Days till renewal	Decision
4557629	2	1	4.5	\$1,500	\$101	179	43	✓
5626598	3	1	2	6000	\$122	168	32	✓
6414822	1	1	12	1800	\$114	185	51	✗
6414842	2	1	9	780	\$137	178	42	✗
6237819	2	1	2	1400	\$119	165	40	✓
6417108	2	1	5	1700	\$131	170	43	✗
6530887	1	1	12	1500	\$120	134	51	✗

Simulate

FINANCIAL IMPACT Estimates

- 91% to 87% LOSS RATIO
- \$11,800 LOST PREMIUM
- 12 LOST POLICIES

Download Share

Portfolio Risk Mapper helps you visualize all your policies and exposures

Background

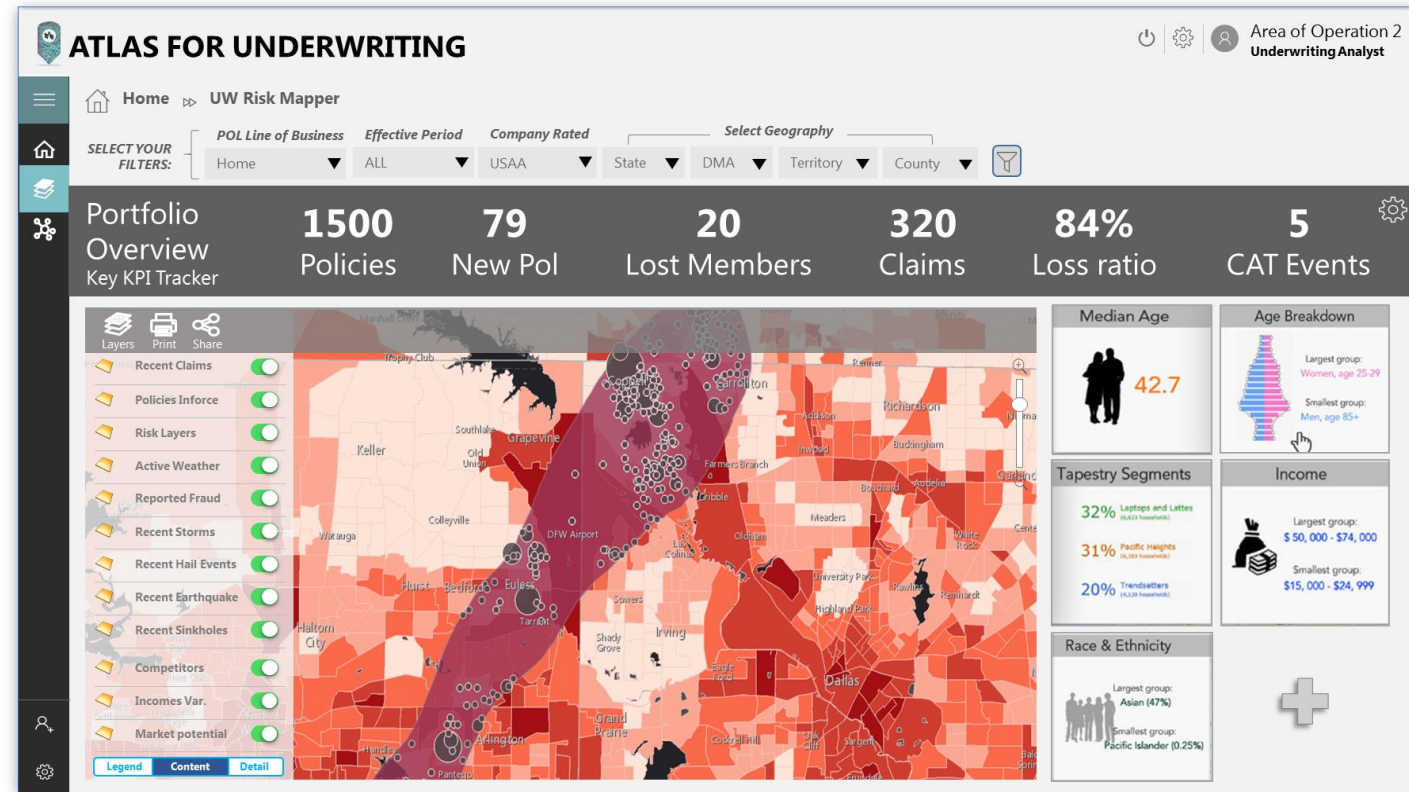
- ❑ Want answers to key business questions such as “who are my most profitable customers?”
- ❑ Understand market share and competition
- ❑ Identify changes and spikes in key metrics

Solution Features

Key KPIs	Customer Segmentation	Cross-Sell/Up-Sell
Renewal/Attrition Prediction	Orphan Policy Assignment	Customer Profitability
Product Recommendations	Market Potential Benchmarking	Current Business KPIs

Business Benefits

- ❑ Ability to define, track and report major changes in KPIs in geographic areas
- ❑ Gathering “local intelligence”
- ❑ Provide ability to coordinate between underwriting and pricing teams



Business benefits of our approach



- Lower frequency & severity
- Improved loss ratio
- Win market share
- Better risk selection
- Higher operational efficiency
- higher competition awareness
- Deeper understanding of member & risk characteristics



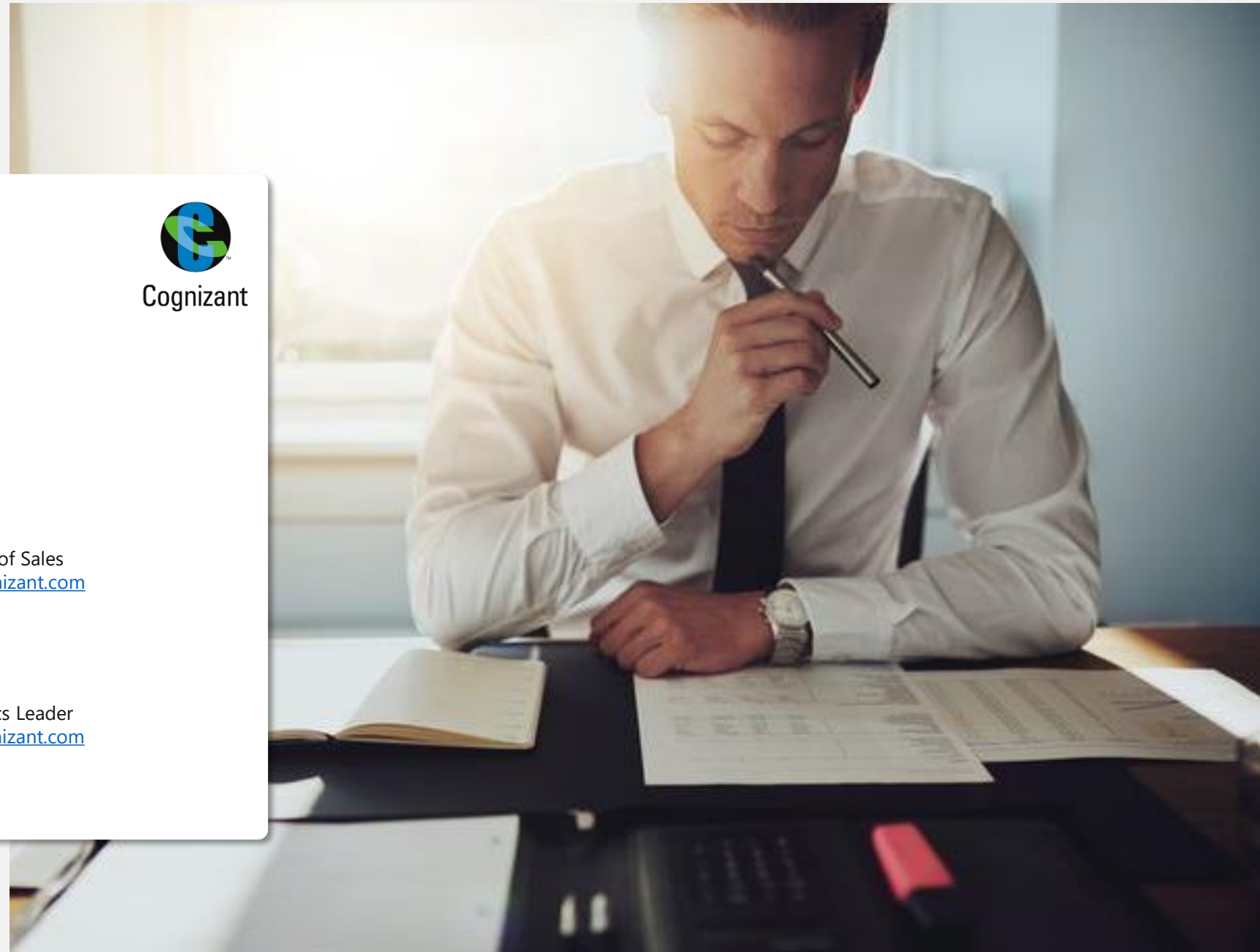
Thank You



Pankaj Parasar
Global Insurance Head of Sales
Pankaj.Parashar2@cognizant.com
+12019519156



Yash Yedavalli
Data Science & Analytics Leader
Yash.Yedavalli@cognizant.com
+15133286822



The 3rd party data provider landscape is fairly large and growing

