



White Paper

# TAZI Automated Cross-Sell Lead Prediction Solution

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## SUMMARY

The insurance industry continues to traverse through its digital transformation journey, which in recent years has been further accelerated by the COVID-19 pandemic. Carriers continue to look for innovative means to improve business outcomes by leveraging proven data management, automated and continuous machine learning capabilities.

One such application of these capabilities is in the betterment of outcomes achieved through account penetration (cross-sell and up-sell) campaigns, a known lever to contribute towards profitable growth. This application would establish a paradigm of continued and predictive improvements in account penetration tactics, such as to predict future customer behavior in cross-sold insurance products. By focusing on the right customer segments for cross-sell campaigns, insurance carriers can significantly improve their customer engagement and cross-sell conversion rates.

In this paper, we outline how TAZI's Cross-Sell Prediction solution works. This solution is based on TAZI's Continuous and Explainable, No-Code, Automated Machine Learning (AutoML) platform. We describe how continuous learning and dynamic customer segmentation help predict the most qualified leads for a possible cross-sell purchase, such as an umbrella policy. We also describe how business units, such as sales managers and agents, can monitor their sales processes and take the best sales and marketing actions in order to improve their conversion rates.



## INTRODUCTION

In order to achieve profitable growth while maintaining customer loyalty, there is a need to apply targeted marketing strategies. Sales agents have to go through a sizable list of potential customers that meet the requirements to buy another policy. Because the sales process is not standardized and sales agents tend to pick the qualified leads according to their own instincts, the conversion rates might not improve over time, which can impact both retention and sales revenue of insurance organizations. Hence, it is highly significant for sales managers to standardize their sales process and increase the lead to close rates with new sales strategies. While these lists indicate product distribution at the account level, they do not include an indication of conversion confidence.

Wouldn't the business benefit if there was a system available that monitored your existing customer portfolio and provided a set of qualified leads that have a high likelihood of buying into another policy?

Machine Learning systems can detect such complex patterns in data and make accurate predictions. However, opaque reasoning or complexity of most ML approaches hamper their use and benefit to the business. TAZI's AutoML system is designed from the ground up to be understandable by business users, enabling them to trust machine learning and stay in sync with continuously changing business dynamics. TAZI operationalizes machine learning models that enable business users to monitor the sales process across the organization, provide a prioritized list of leads, and recommend the right sales action to take and increase your conversion rate.

When TAZI is deployed to predict future customer purchases, your revenue is increased, your conversion ratios improve and you stay ahead of the competition. Furthermore, the customer becomes stickier with your organization, which also helps with customer retention. Imagine if you also used TAZI to help your marketing team find those high-value prospects that look like your most promising and successful leads already on the books and convert them too.

In this paper, we give details on the use and benefits of TAZI's Continuous and Explainable No-Code Automated ML platform for Cross-Sell Prediction.



## PROBLEM STATEMENT

The insurance company needs an automated mechanism to predict the existing customers that have a high likelihood of buying an umbrella insurance policy on top of their auto insurance. Current sales leads have very low conversion rates and there is a need to automate the lead generation process. The sales managers and agents want to understand the reasons for making a customer a qualified lead and want to take the right sales action for successful conversions.

Traditional machine learning models are not updated frequently, and they are updated usually after they fail. The updates require a huge time and effort from the data science teams. Traditional machine learning models are black boxes, the business receives problematic segments, but doesn't understand why problems are happening. If the machine learning models are right and trustable, the right business actions can be taken.

## TAZI's APPROACH

TAZI utilizes the Cross-Sell Prediction Workflow shown in Figure 1.



Figure 1: TAZI's Cross-Sell Prediction Approach



To keep up with the current continuously changing and evolving environment, machine learning systems need to be able to adapt “on the fly”. They also need to quickly notice, recognize, and adapt to changing customer behavior introduced by digital environments. To recognize and react to this ever-changing environment, batch machine learning models are no longer sufficient since they are already out of date by the time they are deployed. Since the change across all sales and customer variables is rapid, the only way to stay ahead of the market is through continuous machine learning.

TAZI’s continuous machine learning technology allows cross-sell models to be updated continuously so that they can detect dynamically changing customer behavior and future purchases. The descriptive indicators of successful purchase change due to a myriad of factors ranging from demographic, economy, competition against the company’s own product or marketing actions. TAZI helps automatically and continuously determine the level of contribution of each of these factors that drive sales.

The first step in the cross-sell prediction solution is to predict a prioritized list of qualified leads across your existing customer portfolio. These leads are generated based on the historical sales and existing customer profiles where different micro-segments are generated with future purchase behavior. A micro-segment can be a class of customers that are of a certain demographic with certain insurance limits that already look like other customers who have bought other products. In Figure 2, the areas shown in red are micro-segments highlighting customers with a possible purchase of secondary products. An example micro-segment of predicted cross-sell, based on driven mikes, insured age, email clicks, company tenure, and occupation is highlighted in the figure below.

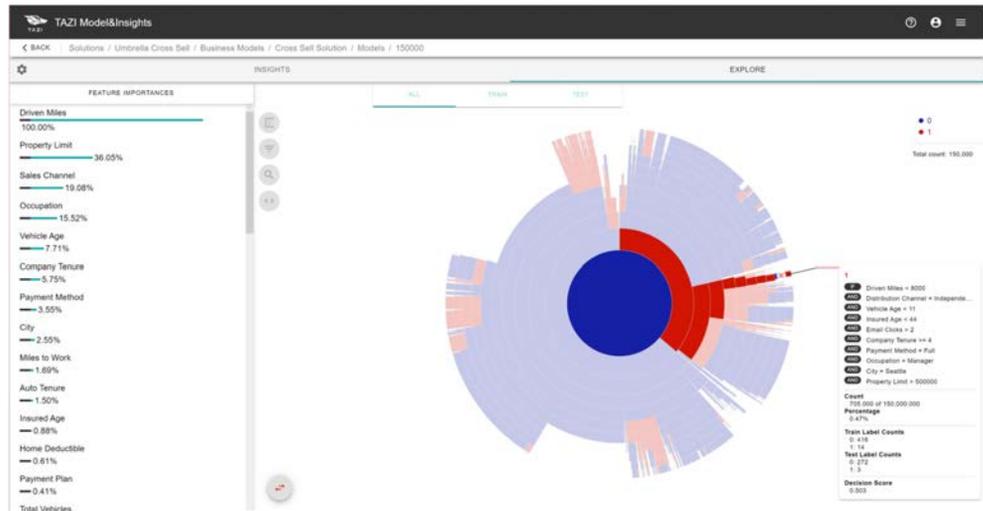


Figure 2: Interactive Explainable AI interface showing predicted possible cross-sellable customers (in red) and highlighting a particular micro-segment.

All the segments in the explainable AI interface can be copied over to the business dashboard component of the solution, where the user can interactively monitor the conversion ratio and sales trends for a specific segment. Cross-Sell indicators and sales trendlines for a specific customer segment be observed through a single screen (Figure 3).

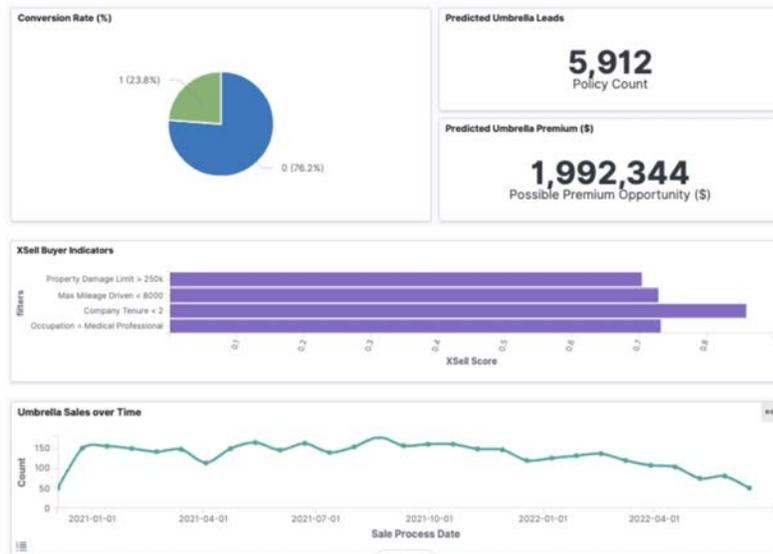


Figure 3: Business Dashboard interface showing historical conversion rates, possible cross-sellable premium opportunity and cross-sell indicators.



The appropriate sales action for cross-sellable policyholders may depend on the micro-segment definition. Email campaigns can be generated for certain customers with high email engagement as an up-sell/cross-sell process. Another action might be to contact the possible buyers through sales agents directly as immediate outreach.

TAZI focuses on its prediction models to be actionable. Hence, all the actions described above can be planned for business straight from the interface. For each segment, the user has the option to customize different business actions, and take output from TAZI's prediction models as the next best action that will add value to the insurance organization. Since TAZI is integrated with most CRM systems, all the different actions will be automatically transferred over the CRM system for the convenience of sales agents.

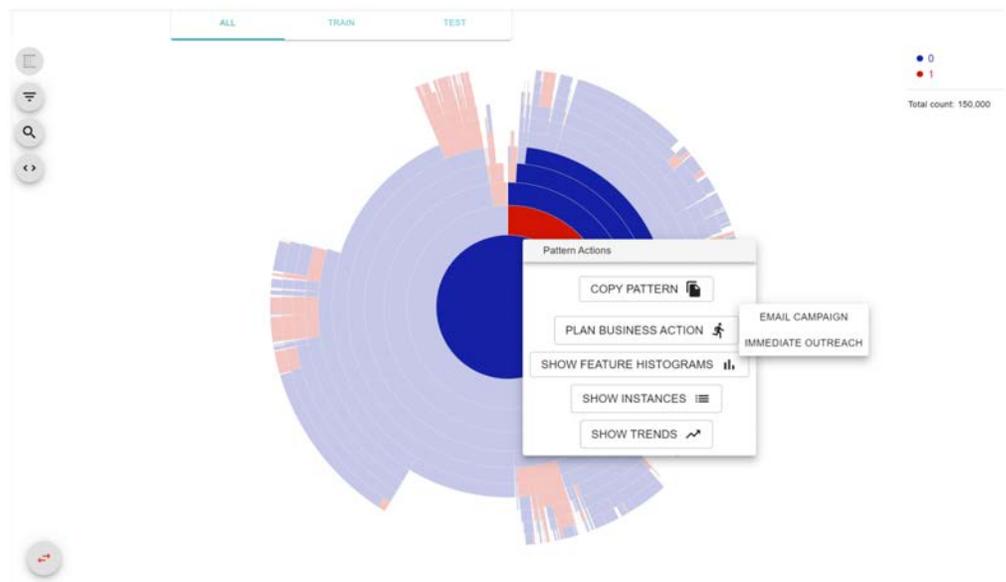


Figure 4: Explainable AI interface showing predicted possible cross-sellable customers (in red) microsegments (in red) and highlighting a particular microsegment.

In addition, especially when there are abrupt changes through competition, economic conditions, and risk levels, there might also be emerging micro-segments with small amounts of data where traditional machine learning models are not able to detect these new patterns. For these situations, the TAZI



self-updating models can be fine-tuned by business SMEs that are able to detect newly emerging patterns for improved performance.

With TAZI, sales managers or marketing members can now drill down into the micro-segment to monitor the conversion ratio and observe sales trends. The user can view the purchase drivers for each segment and can take the best action for an increase in revenue. Based on historical customer behavior, the system recommends the right action that has the highest probability of success. An example output of the TAZI system to CRM systems is shown in Figure 5.

<b>Customer Name</b>	<b>Cross-Sell Score</b>	<b>Outreach Action</b>	<b>Contact Time</b>	<b>Expected Premium</b>
<b>John Doe</b>	76	EMAIL	MORNING	357
<b>Mike Brown</b>	86	DIRECT CALL	EVENING	423
<b>Jane Hydes</b>	92	EMAIL	NIGHT	897
<b>Alice Robbins</b>	88	DIRECT CALL	NOON	656
<b>James Chibe</b>	81	DIRECT CALL	NOON	452
<b>Wade Kipler</b>	93	EMAIL	MORNING	128
<b>Dylan Combs</b>	77	EMAIL	EVENING	932

*Figure 5: Example List of Customers with suggested actions*



## CONCLUSION

TAZI AI with its automation and the explainable interface can help you segment the policyholders in your portfolio that have a high probability of successful conversion to buying another product. By engaging with [TAZI's Cross-Sell Solution](#), product owners and sales managers will be able to improve their product sales campaigns to take the right action in order to increase profitable growth and improve customer loyalty across the organization.

Do you want to learn:

- Do you have sufficient and clean data to predict which products should be resupplied?
- How you can build your own evolving sales forecasting models within 10-30 days?
- How you can start increasing your sales revenue in 1-2 months?
- How you can up-skill your business and data teams to adopt machine learning?

Contact us at: [info@tazi.ai](mailto:info@tazi.ai)

For more information visit our website [tazi.ai](http://tazi.ai)



## ABOUT TAZI

Artificial intelligence (AI) is a source of both huge excitement and apprehension, transforming enterprise operations today. It is more intelligent as it unlocks new sources of value creation and becomes a critical driver of competitive advantage by helping companies achieve new levels of performance at greater scale, growth, and speed than ever before, making it the biggest commercial opportunity in today's fast changing economy.

TAZI is a leading global Automated Machine Learning product/solutions provider with offices in San Francisco. TAZI is a Gartner Cool Vendor in Core AI Technologies (May 2019) and is considered as "[The Next Generation of Automated Machine Learning](#)" by Data Science Central.

## WHO WE ARE

Founded in 2015, TAZI has a single mission which is to help businesses to directly benefit from Automated Machine Learning by using TAZI as a superpower, shaping the future of their organizations while realizing direct benefits like cost reduction, increasing efficiency, enhanced (dynamic) business insight, new business (uncovered), and business automation.

## WHAT WE OFFER

Through its understandable continuous machine learning from data and humans, TAZI is supporting companies in banking, insurance, retail, and telco industries in making smarter, more intelligent business decisions.



TAZI solutions are based on a most compelling architecture that combines the experiences of 23 patents granted in AI and real-time systems, proven at different global implementations.

Some unique differentiators of TAZI products are:

- Business users can automatically configure custom ML models based on their KPI and the available data. TAZI's Profiler accelerates this process through data understanding and automated cleaning, feature transformation, engineering, and selection capabilities.
- TAZI models learn continuously, and are suitable for today's dynamic, realtime data environments.
- TAZI models are GDPR compliant (no black-box models). They provide an
- explanation in the business domain's terminology for every result they produce.
- TAZI supports multiple (heterogeneous) data sources, i.e.,...: external, batch, streaming, and others.
- TAZI can learn both from human domain experts and from data, which speeds up accuracy improvement.
- TAZI's hyper parameter optimization feature reduces human time spent for model configuration. TAZI products contain algorithms that are developed and coded to be lean, efficient, and scalable.

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