## WHITE PAPER

# REVISUALIZING UNDERWRITING - PART II Monitoring Model and Team Performance with Visual Insights

#### Abstract

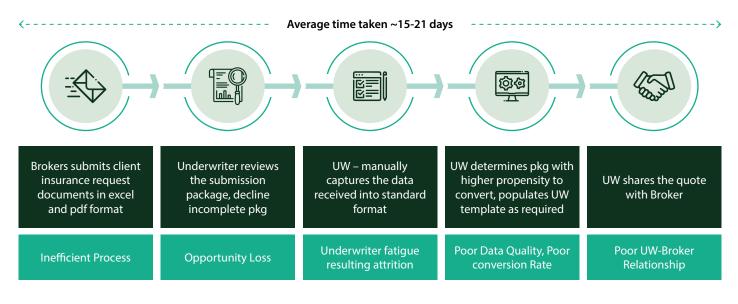
The complex, lengthy, time-consuming processes of insurance underwriting typically leads to a stagnant submission to quote ratio. This paper — a follow-on to the earlier paper in this series that introduced our submission prioritization model for more efficient underwriting — discusses how the solution's monitoring and diagnostic dashboard enables performance reviews of the prioritization model as well as that of underwriting teams.



The insurance underwriting process is often complex, lengthy, time consuming, and inherently inefficient. As a result, most large property, casualty, and specialty insurance carriers around the world perennially grapple with identifying quality submissions from the large flow of submissions they receive daily.

## Inefficiencies leading to poor outcomes

The carriers struggle with key challenges related to their submission process as illustrated and discussed below.



The submission process is often unstructured, with most of the submissions coming through mails having numerous attachments. Due to the complexity involved in identifying risk exposure, quoting for any such submission requires the underwriters to minutely examine these voluminous documents in addition to using their experience and subjective

#### judgement.

With the underwriters spending most of their time trying to analyze the submissions coming in at a steady flow, they can hardly have any time to spare for identifying specific patterns in these submissions. Thus, possessing insufficient insights on the quality of submissions coming through the brokers, they fail to effectively engage with their brokers and keep receiving poor-quality submissions.

The result is a stagnant submission to quote ratio. The lack of insights creates a vicious cycle of poor-quality submissions, underwriter burnouts, and eventual churn in the team.

## Alleviating the pain with analytics and automation

Because the challenges involved in the submission to binding process are cyclical, a solution to prioritize submissions can help resolve them. This requires completely overhauling the business processes involved, through leveraging cutting-edge machine learning models, visualization, and workflow tools. In the earlier paper in this series, we introduced and discussed in detail our submission prioritization model integrated to a workflow tool, to help underwriters focus on prioritized submissions and thereby improve the submission to quote and quote to bound ratio.

In addition, the solution also provides for

an analytical dashboard which is of prime importance to provide continuous insight on the prioritization model performance. The dashboard also provides actionable business insights such as underwriter submission load, quality of submissions received by regions, by brokers, and the like.

## Tracking and visualizing performance

Our solution's analytical monitoring and diagnostic dashboard depicts the prioritization model's efficacy, which in turn help improve the overall quote and bound ratios. Through continuously feeding in the scores from the prioritization model and visualizing them against the expected outcomes, the dashboard enables underwriting heads to review the performance of the model as well as that of their teams.

In case the expected outcomes are not being achieved, the data can be sliced and diced, for example to understand how many days it took for a team to respond to a top priority submission, why a low priority submission has been bound, or why a high priority submission has been declined. This understanding can then be used as feedback for further model improvements.

## Myriad visualization possibilities

The solution's dashboard provides a snapshot of the overall quote and bound ratio of the respective business lines. This provides actionable insights on how effectively the underwriters are utilizing the model outcome in their quote/ binding decisions. A view of the same can also be achieved at a monthly level to track the month-on-month performance and to analyze any seasonal spikes that might exist in the different business lines. Management can then take appropriate decisions on improving performance in accordance with the trend.

This can be further extended to view the quotes and bind ratios by the UWs, brokers, and region. The dashboard can display the respective submission distribution along with quotes and bind numbers for each of these three variables. This will facilitate a comparative analysis of each of the subfactors present in these three metrics and help evaluate their performances through multifaceted visual representations. The distribution of submissions across the different scoring buckets can help gauge how effectively the prioritization engine is working and how underwriters are deciding upon accepting and rejecting the array of submissions coming in daily. In an ideal scenario, the bulk of the submissions should be sitting in the low bucket and only a niche number in the high bucket. This view provides insights on the low-quality submissions and helps to gradually move the number of "low' quality submissions downwards while improving the number of "top," "potential," or "nextbest" submissions.

The dashboard can also provide a clear picture on the concentration of quality submissions coming through from brokers across the region, and their submission allocations to each underwriter. This helps underwriters to engage with their respective brokers more effectively and gain better quality submissions. In addition, the concentration and quality spread of submissions can provide management with insights on managing underwriting resource allocations well.

A comparative study can also help management take decisions on enhancing the skill sets of underwriters and brokers. It can also act as source for new and prospective business areas where the carrier can invest, expand, and optimally utilize their resources for overall growth.

Further, the geographical concentration of submissions can also be measured and used as an indicator of profitable business areas. This will help conclude how each location is performing against the different scoring buckets and if any corrective steps are required to streamline the submissions. Potential new geographical locations can also be targeted to develop the business further. These insights potentially help the actuaries with deeper insights in developing their pricing model.

### The benefits of clearer insights

The submission prioritization and analytical dashboard is crucial for underwriters to focus on quality submissions and better utilize their productive time. It will help improve the overall quote and bind ratios and thus improve the overall revenue for the book of business.

If effectively used, the submission to quote ratio can experience a jump by 10%-12%. Similarly, the bind ratio can also see a drastic increase by 6%-8%. Also, the earlier submission processing turnaround time (TAT) of about 30 days can also exponentially decrease to about 30 mins. It is also important to note that the precision of the prioritization model depends on its periodic maintenance based on the insights derived through the analytical dashboard.

## **About Author**



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Abanti is a Senior Lead Analyst with Infosys BPM's Digital Transformation Services and is responsible for Insurance – digital solution design and service delivery. She is currently pursuing a PG Diploma in Machine Learning and AI and has over 10 years of experience in domain consulting, exploratory data analysis, ad-hoc analysis in Insurance and Retail spanning across geographies like Australia and Canada. Prior to Infosys BPM, Abanti has been with WNS Global Services and Tata Consultancy Services.



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Prior to Infosys BPM, Sourav had been with IBM, Satyam, Tata Consultancy Services and Standard Chartered Bank in diverse roles across India, US, and UK.



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