

## Advanced Analytics for Better Insights

Part of the Insurance series:  
Benefits of a New Policy  
Administration System: Why  
Going Live is Not Enough



### **Abstract**

Insurance professionals agree that data is a key asset of the P&C insurance industry that delivers significant organizational value. Underwriting, actuarial, claims, marketing, finance, etc. derive value from data through the application of analytics. Unfortunately, there is general agreement that most companies underutilize this key data asset. The reasons are multiple, ranging from inconsistent electronic data capture, to data quality and accessibility, to inadequate analytic tools and skills. The implementation of a new Policy Administration System (PAS) can create a unique opportunity to evaluate and address many of the data and analytics challenges that an organization faces in the front end of their operations. However, to be successful and fully leverage the opportunity a new PAS creates requires planning and a series of activities before, during and after the actual PAS implementation.

This article investigates the value data and analytics can deliver to a P&C insurance organization and the three A's many successful analytics organizations master: Accumulate, Analyze and make Actionable. As well as, how organizations can approach the analytics improvement journey while implementing a new PAS.

### **Challenge**

Data is the "life blood" of the P&C insurance industry. Yet many carriers miss opportunities because they do not have good visibility into their data and have not made their data actionable. Specifically as it relates to an organization's PAS and related applications, decisions such as risk appetite, risk selection, pricing and product changes are often sub-optimized because of data and/or analytics constraints.

Many P&C insurance organizations are modernizing their PAS and related applications in order to enhance the effectiveness and efficiency of their underwriting units. While the PAS itself can move companies towards this goal, they will fall short of their desired destination if they do not also explicitly address their data and analytics needs throughout the PAS implementation process. Some key challenges companies need to address include:

### **Accumulate**

What are third party data needs today? In the future?  
How do I maximize the data capture of underwriting information?

### **Analyze**

What tools are required by underwriters? Management?  
How do we transform data into information?

### **Actionable**

What are the predictive model requirements today? In the future?  
How can I enable rapid changes to product, pricing, etc?

Many Insurers at the end of their modernization journey have found "Going Live is Not Enough." These initiatives have fallen short of the destination because they realize they did not address the three A's (Accumulate, Analyze and make Actionable). Only by strategically address the three A's before, during and after their PAS initiative can an organization maximize their probability of reaching their destination.

### **Building Analytics into Your PAS Journey**

Reaching the full potential of your PAS journey should require that analytics be considered before, during, and after your PAS initiative. Specifically, this means understanding your data needs and data sources as well as putting in place the tools and processes that will allow you to transform your data into information and make it actionable.

No matter which business problem you are trying to solve, the challenges and requirements for leveraging analytics are the same. A concise way to represent the three primary requirements for success with analytics is through the three A's:

### **Accumulate**

Make data accessible from disparate sources to be analyzed

### **Analyze**

Transform large sets of data into insights and knowledge.

### **Actionable**

Take profitable and expense reducing actions based on those insights and knowledge

### **What is Analytics?**

Analytics is the practice of deriving insights from data to make better fact-based decisions. Many organizations have access to a wide array of analytics applications and capabilities. These applications have varying levels of sophistication and potential benefits.

Figure 1 depicts a range of techniques leveraged to derive insights from data. These range from the most basic methods, “descriptive analytics,” which provide the foundation for turning data into information, to “predictive analytics” that provide advanced forecasts and the ability to model future results and outcomes, to the top-tier of analytics called “prescriptive analytics” that leverage machine learning techniques and dynamic rule engines to both interpret data and recommend actions. In our view, as one moves from descriptive analytics up the ladder to prescriptive analytics, there is a progression through ‘hindsight’ (what happened), ‘insight’ (why did it happen), to ‘foresight’ (what is likely to happen in the future). Each progressive stage also makes your data more actionable.

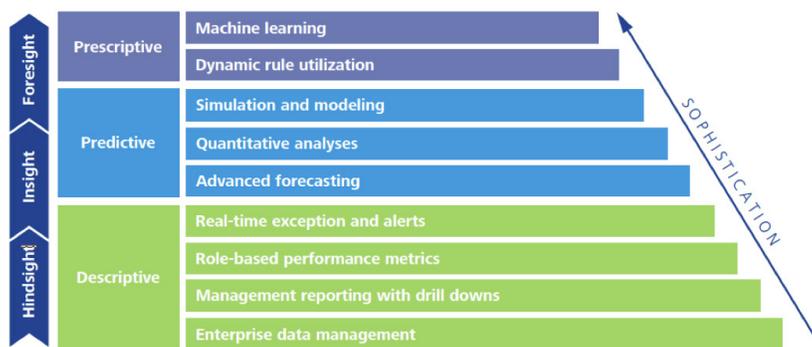
Most successful P&C carriers are making use of analytics to fuel decision-making across many organizational domains:

- Customer strategies — Customer segmentation, targeted marketing, cross selling and upselling, customer call routing, and claims processing
- Channel management — Producer segmentation and strategies, producer targeting, online management instead of call center management, third party application data verification
- Product — Product performance, product portfolio optimization, new product development
- Underwriter and Risk Selection — Risk appetite, risk selection, risk pricing, portfolio management,
- Finance strategies — Interactive financial visualizations, risk-adjusted planning, budgeting, and forecasting, and analytics for control, efficiency, and reducing working capital

As companies look to modernize their PAS and related applications many of the domains come into play from a data and analytics perspective. For example, some companies have taken the opportunity to optimize/minimize the required information on customer applications. In this process, they have:

- Reduced required information for relatively simple products where unnecessary/unused data fields accumulated over the years,

Figure 1. Analytics includes a range of techniques for gaining insights from data and making data actionable.



- Leveraged third party data to pre-fill information about the risk which had the benefits of reducing the demands on the applicant and increasing the accuracy of the data, and
- Standardize the data capture across the product portfolio to enable enhanced analytic solutions.

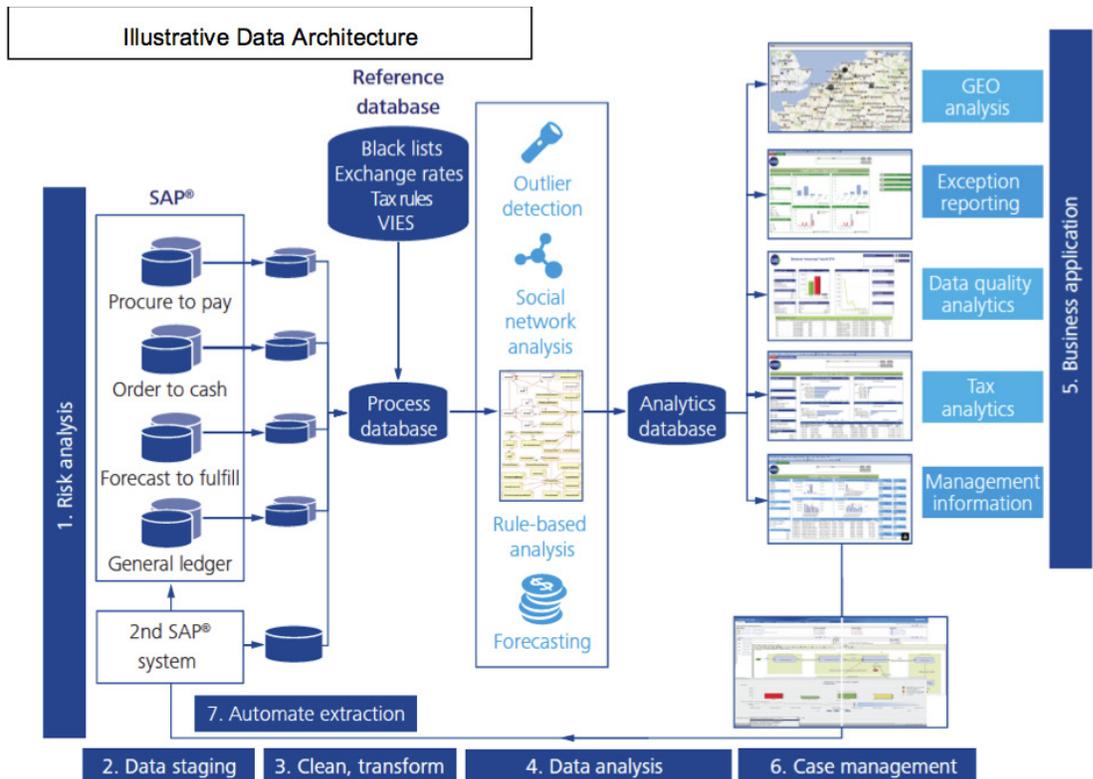
### Accumulate

Insurance carriers have access to more sources of data than at any time in history. To make use of all this data you have two general options for accumulation:

- Bring the data together in a centralized repository: extract, transform, clean and load.
- Pull data directly from multiple sources and make it available through an interface that gives users a single view of the data.

Choosing how to accumulate your data into an integrated data architecture will depend on your individual situation. Having a roadmap, trained people and tools can enable your organization to make the right accumulation choices to meet your business objective. Once the data is accumulated, queries and visualizations can be adapted to support specific analysis requirements.

Figure 2. Data should be accumulated into an integrated data architecture.



**Analyze**

Only by understanding your business requirements well, can you expect to apply analytics in a way that can have a significant impact on your bottom line. The analysis phase can be broken into three basic steps:

**Step 1**

Issues: What business problems(s) are you trying to solve?

- Examples: Enhance U/W performance and efficiency. Enable organization growth through rapid product development and deployment.

**Step 2**

Facts: What internal and/or external data and tools can you leverage to understand the business and improve performance?

- Examples: Leverage third party data to pre-fill applicant information. Develop/enhance business rules to simplify pre-renewal process.

**Step 3**

Understanding: What is currently happening or has happened related to your business and why?

- Examples: Provide portfolio management visualization tools for underwriters to manage new and renewal books. Enable new product performance tracking from initial market entry through retirement.

After thoroughly understanding your requirements, you should be in a good position to build analytics into your business processes going forward.

## Make Actionable

Making your data actionable is a critical step in gaining the full value of analytics. This involves both rethinking your business processes to better leverage analytics and using analytics tools to drive decisions and actions that improve business performance.

Examples of actionable data include:

- Creating actuarial tools to monitor risk levels and provide early warning signals to the business,
- Establishing underwriting portfolio performance targets and link submission routing based on actual performance,
- Developing performance dashboards that can be used to make profitable decisions about target markets and pricing.

Many of the processes supported by your Policy Administration System can benefit from fast access to actionable data. Building analytics into your PAS processes is what turns analytics into power.

## Plan for success

Major company investments often fall short of their desired destination. As it relates to PAS modernization efforts, companies realize “Going Live is Not Enough” too late and they often spend additional years of effort and millions of dollars to reach their desired destination. With disciplined planning and execution before, during and after the PAS modernization, companies can address the three A’s of analytics and reach their desired destination sooner. This can be a difficult process and critical decisions are required to prioritize efforts. A strategic roadmap built around business objectives and needs can be an effective approach to establish the plans and focus execution. The roadmap can create needed balance between short-term objectives and long-term vision while helping to optimize the value data and analytics can deliver.

## Conclusion

If you agree that data is the “life blood” of P&C Insurance, you may also agree that organizations that make the best use of analytics and data will be most successful. These organizations know that “Going Live is Not Enough” when it comes to their PAS journey combined with analytics. These organizations have planned and executed on a road to master the three A’s of analytics: Accumulate, Analyze and make Actionable. Many successful businesses turn data into action to improve business performance.



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