Nine levers for maximizing analytics ROI

by Chris McShea and Keith Toney
Advances in the use of data, technology and analytics are reshaping the nature of competition in the insurance industry. Senior executives are pushing hard to monetize their analytic assets by weaving data-driven decision making into all aspects of their business process. A decade ago, the first movers enjoyed significant benefits through information arbitrage and data asymmetry. In today's marketplace, such disproportionate benefits are hard to find. The senior executive now faces a greater challenge to harvest return on investment (ROI) from analytics and design a data-driven basis for future competition. The good news is that powerful innovation remains possible when one examines the analytics landscape through a new lens of organizational behavior.

The critical enabler for analytics success is not only about data or technology, as the conventional wisdom seems to suggest, but rather about a shift in the mental models used by senior leadership teams. Today's top performers have gone beyond high-end mathematics, sophisticated data models and powerful analytical tools to identify and foster the specific behavioral changes and broad-based cultural shifts required for the adoption of data-driven decision making. In short, they have moved from simply “implementing analytics” to “thinking, managing and acting analytically.”

The analytics revolution in insurance represents a fundamental shift in how the business operates and how it should be managed. Historically, human judgment and experience were the principal engines of strategic and operational decision making in underwriting, risk management, product development and sales. Today, however, decision-making frameworks are being redefined by exponentially larger data volumes, major advances in technology and computing power, and increasingly sophisticated statistical models.

While most senior insurance executives recognize the potential value of advanced analytics in making better decisions faster, very few conceive of the full impact to longstanding management practices in the industry, and how difficult it can be to move past the old ways of thinking. The possible analytics-enabled transformations in decision making, resource allocation and operational excellence programs are fundamentally different than the value proposition for, say, claims processing automation.

Nearly all insurers we speak to understand the need to adopt and expand their analytics programs; the business case is so clear and intuitive that underinvestment in technology and lack of effort in execution are very rare. However, most insurers still struggle to maximize the return on analytics investments or achieve the differentiated performance they expect. We believe the disappointing performance is largely a function of management styles and mental models that prevent insurers from aligning the collective activities needed to generate a strong return.

The key differentiator between firms that succeed with analytics and those that struggle is that firms that succeed are willing to challenge legacy thinking and shift their management models to fully change how the business works. Through increased awareness and clearer focus, senior leadership can spur an analytics-led transformation in decision making and management. The good news is that the solution is largely within the control of senior leadership. The challenge is that the barriers are conceptual in nature and do not yield easily to directives, additional spend or expanded headcount.

This paper will help senior executives identify the most common barriers to analytics success and to recognize the required changes in mental models and management approach. The nine “levers” described below provide a framework for driving analytics programs to their full potential, maximizing analytics ROI and creating the objective, insight-driven management culture required for next-generation market leadership in insurance.
The nine levers

1. Analytics and the C-suite agenda

Innovations that can be used to design and launch a distinctive new strategy are rare, but analytics is clearly such a force. Thus, senior leadership teams must be prepared to let go of legacy decision-making models and explore the full potential of analytics in terms of gaining visibility into operations and pointing the way forward to improved results. Given the impact analytics is having on innovation and strategic positioning, the subject should be rigorously debated within the senior leadership team. At some carriers, an increased respect for data and a new openness to insights produced by analytics applications must be established.

The Chief Analytics Officer should be added to the senior leadership team, or at least make regular contributions, perhaps via a weekly agenda item. Training and education will also be necessary – an analytics “boot camp” may be a good fit for some senior leadership teams in the industry. Lastly, an intense “analytics scan” of the company’s most intractable challenges may prove effective in demonstrating the power of analytics in action.

2. Organizational design – structure and leadership

Where does an advanced analytics function best fit in the insurance enterprise? Most insurers debate centralized vs. decentralized models, hybrid vs. federated approaches, or vertical integration with actuarial or strategy groups. There is no one-size-fits-all model. In fact, the optimal design will evolve through a series of phases as the organization strengthens its commitment to advanced analytics, matures its capabilities and assembles the right analytics leadership.

Experience confirms that connectedness and access to the C-suite – with the attendant ability to make an impact and gain validation – will strengthen the function faster than anything else. Collaboration on complex issues and the sharing of best practices will likely determine which insurers compete effectively and win through analytics. Leadership then deals with policy, productivity, quality control, shared costs and other organizational factors. The bottom line is that talent management, ready access to tools and ongoing dialogue with the C-suite ultimately trump traditional design considerations.

3. Navigating the last mile

Twenty years ago, when advanced analytics first came to financial services, the challenge was finding modelers and quantitative analysts, or quants, who could convert the traditional mental models of applied mathematics to address business problems. The early models, primitive by today’s standards, generated disproportionate returns as they arbitraged human decision making that was then the industry norm.

Now that we’ve reached mass adoption, it’s more about cultivating analytics cultures, designing models for widespread adoption, and addressing local implementation issues. This latter exercise is where we see most ROI failures. Once the lift charts are approved by the senior leadership team the journey gets decidedly less glamorous and success becomes dependent on sorting out a myriad of often local execution challenges. It is these challenges coupled with the tenacity and creativity required to get this done that defines the “last mile”. Insurers who do navigate the “last mile” well share several notable traits. They speak the same analytics language (which minimizes subjective debates), emphasize collaboration and thrive on the daily grind of experimentation and extensive piloting. The intense learning environment fuels the company’s culture.

Powerful models are necessary but are not sufficient to drive strong analytics ROI.
4. System dynamics – dealing with how things really work (and distractions)

Competitor actions, broader economic pressures, constant “fire fighting,” human nature and a constant barrage of other forces can dilute the impacts of large-scale strategic investments or cause executives to lose sight of critical objectives. They may also cause a drift in the execution of customer-facing activities or innovation programs. The underlying causes of this drift can be difficult for management to detect. In complex environments, seemingly small details - what a broker customer service representative (CSR) thinks of your technology, how the marketplace interprets competitor pricing and how field management messages to distributors - can have an oversized effect on performance. Thus, insurance leaders need to understand the complexity and overall system dynamics of the environment in which they seek to instill advanced analytics capabilities.

5. Local optimization

Local optimization issues vary in type, but all of them represent potential breakdowns in the insurance value chain. That is true largely because individuals do not spend every moment thinking about the company’s core strategies or profit margins. A product manager works backward from production quotas, rather than from agreed risk/reward standards. A line of business executive negotiates a conservative plan because the results are already better than internal peers. A distributor representative places business based on a path of least resistance.

Addressing these types of issues offers the quickest ROI gain for advanced analytics, provided that insurers design applications calibrated to their unique local optimization issues and opportunities. The benefits are many: legacy assumptions and mental models are neutralized, automation creates efficiencies and fact-based insights cut through human bias in the managerial decision-making process.

6. Model development

In the early days of modeling, circa 1995, management’s attention was occupied with mastering the math and pursuing powerful “lift curves.” New generations of models have reached new levels of complexity and reflect dramatic changes in the business over the last decade. Elevated customer expectations, pricing micro-segmentation and new channels have redefined what it takes to win; today’s models must reflect these realities.

With plentiful resources and widespread model adoption, the payback has shifted to architecting applications that complement existing strategic assets to strengthen a company’s core value proposition. Without this alignment, the organization works against itself. Distributors may balk at working with insurers whose underwriting models they perceive as black boxes, even if the business fit is otherwise a good one. Similarly, marketing campaigns aimed at increasing website traffic may ignoring the type of business that is being attracted. These situations are often (and unfortunately) attributed to models. Meanwhile, back in the lab, the modelers do what they do best – build even more sophisticated models - therefore, the spiral toward greater complexity. While steeper lift curves are a good thing, they are no substitute for alignment.

Powerful models are necessary but are not sufficient to drive strong analytics ROI. Therefore, insurers must be sure that analytics applications, processes and models are clearly understood in terms of their intent, scope and capabilities. Further, models should be recalibrated periodically to ensure targets and assumptions are still valid and aligned to specific business objectives and the core value proposition.
7. Talent management

Lost in all the big-data discussions is the critical need for human skills, judgment and leadership in analytics programs. Today’s quants are industry-agnostic, highly mobile and motivated by opportunities to have an immediate impact and reap significant rewards. Insurers can and should be a destination of choice for top-tier analytics talent.

Insurers need professionals who see industry complexity as an opportunity for competitive advantage, who understand business design, who have the confidence to drive change across silos and can engage with the insurance industry’s original quants - actuaries. As objective, fact-based management models take hold, workers across the enterprise - including underwriters, marketers and claim adjusters - will take on more strategic work aligned to external market realities, not internal policy constraints or conventions.

8. Embracing experimentation

In the current economic environment, budgets are so tight that there is little room for insurers to experiment or set up “sandboxes” to explore new ideas. The intense “here and now” focus overlooks the benefits of a “test and learn” culture. Carefully designed, experimentation facilitates a more disciplined search for valuable insights about consumers, processes and operations. Further, it breaks down organizational silos and significantly reduces project execution risk. The end result is a faster speed to market for value-adding enhancements. Thus, experimentation should be explicitly budgeted and assigned to talented managers. Culturally, failure should be recognized as an effective teacher and insight-driven course corrections should be supported by senior management.

Relative to analytics, experimentation can take many forms, including the incorporation of new data sources in the lab or field pilots that test channel and customer reaction in advance of new product launches. Between apps borrowed from other industries, big data and the critical nuances of insurance activities, the possibilities for innovation are substantial. The challenge is in pivoting existing assets (channels, value proposition and service expectations) to embrace new learning.

9. Data – from cost center to strategic asset

Chronic underinvestment in data as a strategic asset has left most insurers overwhelmed by the notion of big data. The longstanding underestimation of data's strategic importance – and the view that data was mainly a cost center – is a cultural issue that can be addressed through strong leadership. In the 1990s, the rule of thumb was that 80% of the effort in advanced analytics was collecting and preparing the data. Today, for some industries, it is dramatically lower than that. However, in insurance, data collection remains the major burden. What has changed is the volume and nature of available data, as well as the tools to manage and monetize the information. Entire industries (e.g., retail and pharmaceuticals) are being remade by deeper and richer customer insights. A new conceptual model for the industry would allow insurers to attack their most pressing problems in more powerful ways - provided they can access the data they need.

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Bottom line: from analytics to innovation

Insurers have always been reliant on data. Actuaries and marketing quants have always played critical roles in the translation of raw information into actionable insights and, ultimately, an edge in the market. But today is different. Data is everywhere and it can be argued that too much is a greater risk than not enough. Insurers must now focus on choosing which questions they should be asking of the data and precisely where, in their operations, analytics can uncover opportunities and improve performance in tangible ways.

Experience shows that insurers generating the most value from their investment in analytics have successfully navigated the organizational challenges described here. The most successful have designed and implemented analytics strategies that reflect their unique organizational structure and cultures to drive improved business results and true innovation. Indeed, the winning insurers in the analytics and big data era will be those most willing to explore new frameworks, new management paradigms and even new visions for a different future.

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