



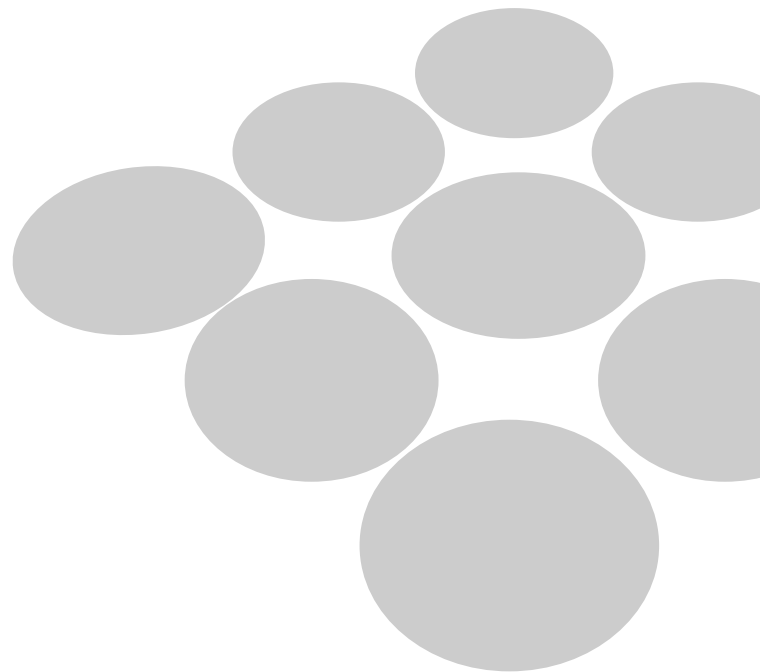
STRATEGY MEETS ACTION

ANALYTICS IN INSURANCE:

Start Fast, Accelerate Value

Featuring as an Example:

Avanade



An SMA Perspective

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This perspective is based on SMA's ongoing research on analytics in insurance.

Avanade has purchased distribution rights.



About This Perspective

This perspective is based on SMA's experience, research, and insights.

Avanade has purchased the distribution rights to this research and perspective. This is not paid-for research.

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ANALYTICS IN THE DIGITAL ERA

Solving Traditional and New Problems

The insurance industry has always been a data-centric industry. It could be argued that the industry has historically acquired more expertise regarding data and the analysis of that data than any other industry. The actuarial and underwriting professions are solid proof of the centrality of data and analytics in the industry. But the world is changing rapidly. The mobile, digital, connected world now generates massive amounts of data every second, including an increasing variety of types of data from new sources. In addition to all of this new data, insurers possess vast amounts of proprietary data – much of which holds potential insights that are trapped in legacy systems and databases.

This presents great opportunities for insurers to solve new types of problems with modern analytics tools and to approach traditional problems in new ways. Insurers will always need to create quantitative, factual reports on the state of the business, and most are quite good at this already. The new wave of analytics enables more frequent and even real-time views of the traditional reports, but more importantly, supports more qualitative assessments, along with predictive and prescriptive capabilities. This new era of analytics also allows for new types of questions that seek to find patterns or determine potential actions – questions that were once difficult to answer due to the cost and time related to the technologies available in the past.

Business Objectives for Analytics

The reason that insurers continue to increase investments in data and analytics are that they are ultimately looking for an edge in three key areas:

- ✓ **Product/Risk:** Analytics can be harnessed to achieve more granular exposure analysis, enhance product design, improve underwriting, enable better pricing precision, and more efficiently and effectively adjudicate claims. Analytics are especially vital to address claims fraud.

The result – increased profitability of the core business.

- ✓ **Customer Experience:** Improving the customer experience requires actionable insights to better understand customer needs and journeys, support omni-channel expectations, personalize interactions, and propose best next actions. Gathering, processing, and managing data at scale is required to develop the necessary understanding of all customers as individuals.

The result – new customer acquisition, improved retention, and maximized customer lifetime value. In a recent study, 28% of insurers saw increased retention and improvement in lifetime value due to a focus on improving the customer experience¹.

- ✓ **Operational Efficiencies:** In order to identify opportunities to improve efficiencies, move to digital operations, and capitalize on the new economies of IT, insurers must have real-time access and insights for operational data. They must have access to a variety of data to explore, question, and extract actionable insight to apply to operational activities.

The result – business optimization and a reduced cost structure.

¹Customer Experience and Your Bottom Line, 2016 market research report – Avanade, Sitecore, Vanson Bourne.



It is also important to consider the broader context of insurance transformation. Many insurers have significant digital strategies, aiming to build more agility and flexibility into the organization. And being a digital business means being an analytics business. The ability to leverage digital data for insights is of high value and is a major factor in insurers gaining and maintaining an edge in the digital age. Finally, given the pace of change and increasing pressures on the industry, it is vital that insurers quickly start to accelerate the acquisition of value from their analytics program.

BUSINESS CAPABILITIES FOR INSURERS

Answers Insurers Are Seeking

Business intelligence and analytics are becoming increasingly vital to every part of the insurance business. Insurers need capabilities that address a wide variety of questions across marketing, sales, and service as well as enterprise operations. The general types of questions raised are illustrated in Figure 1. At a high level, insurers want to explore questions like the ones above the orange boxes: How do we gain new insights from historical data? What are our new opportunities? At the next level, they are asking more specific questions, like those inside the orange boxes: What happened? Why is it happening? What can we do about it?

There are a variety of technology tools and approaches to address these questions. They generally fall under the categories of business intelligence, advanced analytics, and emerging analytics, and these technologies can be applied to answer the types of questions posed in each of the sections.

Figure 1. The BI and Analytics Spectrum for Insurers



Source: Strategy Meets Action 2016

As can be seen from the diagram, the questions to be answered range from the traditional, more operational types of issues to more complex and differentiating insights and actions. On the far left, analysis of historical data enables reporting on the state of the business (What happened? What is happening now? Where is the problem?). In addition, historical data (both internal and external) can help with diagnostics on specific problems (Why is it happening? What if it continues?). Towards the middle and the right of the diagram, more complex and forward-looking analytics can be applied to understand how insurers can identify, predict, and capitalize on new opportunities, and ultimately, through emerging analytics, move to human augmentation and automated decisioning. It should be noted that big data is an overlay onto this diagram, providing a set of approaches and technologies to answer these questions when the volume, variety, and velocity of the data cannot be addressed in a timely manner by traditional analytics.



Business Use Cases for Analytics

The types of problems described in the prior section exist for every department and line of business in an insurance company. Figure 2 is a sampling of the specific types of business uses for each part of the insurance value chain.

Figure 2. Business Analytics Across the Insurance Value Chain



Source: Strategy Meets Action 2016

It is evident from Figure 2 that there are many types of business uses for analytics, including traditional uses (CAT modeling, agent performance, claims fraud) and newer uses (personalized marketing, omni-channel customer experience, claims cost optimization). In addition, new and deeper insights can be gained in traditional areas, such as more granular by-peril risk assessment, social network analysis for fraud, and actionable insights on the existing book of business.



Achieving Business Value From Analytics

Because the pace of change is so rapidly increasing, to achieve business value from analytics, insurers will require rapid deployment of solutions to address specific business problems and opportunities. Analytics solutions in the past could address many of these problems and business cases, but the turnaround in some cases was weeks or even months. The true requirement for competitiveness today is to establish a platform to enable iterative, rapid deployments on an ongoing basis which allow the company to respond to market conditions and opportunities in days or even hours.

Business executives are seeking solutions that meet three criteria:

- 1 They must support actionable insights that can be operationalized. Offline analytics are still required for strategy purposes, but real-time insights are now required and must be embedded into transactions and interactions.
- 2 Data and insights must be interactive and visualized. Static reports are no longer viable. Executives need the capability to interactively drill down for more information and visualize data via mapping layers, graphics, and other visual forms.
- 3 Solutions must be elastic, supporting solutions that scale, with costs that are aligned with the value (no big-bang projects).

The universe of expanding internal and external data provides great new opportunities. But the data itself is of relatively little value unless it can be processed, enriched, visualized, and surfaced in a way that provides actionable insight.

ORGANIZATIONAL AND TECHNOLOGY CAPABILITIES REQUIRED

The organizational and technology capabilities required by insurers to support their business requirements fall into three related areas: data management, analytics technologies, and insurance expertise.

Data Management

Managing data so that it can be leveraged for analytics is one of the most challenging tasks that insurers face. There are organizational, process, and technology dimensions of good data management. Several areas must be addressed to create the base for BI and analytics activities.

Data Sources: Internal and external sources of data must be incorporated into the plan, as well as both structured and unstructured data. Traditional data sources and new, emerging data sources should be leveraged for new insights.

Data Characteristics: Traditionally static, structured transaction data has been the primary type of data used for analysis. Today it is useful to think of data in motion as well as data at rest, which creates new requirements for the capture and management of data.

Data Stages/Processes: Every stage of data requires the proper technology tools and operational processes to ensure high data quality and availability when needed. This means that the data definition, capture, creation, cleansing, conversion, enrichment, organization, and management steps be part of a disciplined, integrated approach.

Data Organization and Governance: Perhaps the most important aspect of data management is the development of a master data management scheme with the proper management oversight and accountability, policies, and procedures that apply in a common manner across the enterprise.



Analytics Technologies

Analytics capabilities are rapidly becoming the lifeblood of insurers. It is critical that analytics tools sit on platforms that are industry tested and proven. Additionally, pre-integration for speed to execution as well as mitigating execution failures or sub-optimal delivery is imperative.

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- ✔ **Enterprise Level Integration:** While some insurers will not have an analytics infrastructure and will want analytics technology that can do a ground-up build, it is more likely that various components will already exist. It is important that analytics technology can integrate with existing platforms or tools that are still viable and important to retain.
- ✔ **Speed and Ease:** Given the pressing business need for analytics insights, no insurer can wait multiple months or years for modern capabilities. Leveraging cloud for analytics delivery is an important execution option. With the vast quantities of existing data insurers have, day-one provisioning of the data exponentially increases the value of insights.
- ✔ **Dynamic Scaling Capabilities:** Most insurers can contend with standard data volumes. However, events that require analytics support such as natural catastrophes, spikes in financial markets, or major new product releases drive the need for an analytics infrastructure that can respond in real time, and then scale back to normal levels when the event has concluded.
- ✔ **Flexibility for the Future:** No one knows what the data volumes or market opportunities will be next year, let alone five years from now. Emerging technology and the connected world will certainly change the data paradigm. Technology that can adjust as new data emerges is critical. Creating a technology base that is elastic allows for an iterative, build-out of analytics capabilities.

Insurance Expertise

An analytics-driven organization requires new hybrid skills. Experts that blend insurance business expertise with data/analytics knowledge and experience are a must-have but difficult to come by. While growing this expertise internally is important, insurers need those skills now. That means finding partners with existing insurance business and data/analytics skills to jump-start business value.

- ✔ **Line of business depth:** On the surface, it may appear that data and analytics knowledge combined with general insurance knowledge are the only critical knowledge sets. However, to target analytics decisions appropriately, line-of-business experts are critical analytics team members – questions and analytics outputs that may appear valuable for personal automobile will probably have an entirely different set of parameters for business automobile or fleet business.
- ✔ **Functional area experience:** Process re-engineering and optimization are high-value analytics outcomes. Because of this, functional areas such as marketing, claims, and underwriting are important contributors to analytics initiatives and analytics team members.
- ✔ **Implementation success on projects with other insurers:** Nothing beats success when undertaking an analytics initiative. The problem is that most insurers have experienced only small-scale, single-problem analytics initiatives. Enterprise analytics initiatives require a whole different set of skills and experience; therefore, it is valuable to partner with an organization that can bring best practices to the initiative.



AVANADE

Company Overview

Avanade was founded as a joint venture between Accenture and Microsoft, designed to leverage the solutions and expertise of both firms. Avanade focuses on partnering with clients to help them become modern digital insurers through capabilities in four main areas: customer centricity, insurance core systems replacement, digital marketing, and advanced insurance analytics. In the BI/analytics space, Avanade has delivered digital enterprise analytics solutions for over 550 enterprises across multiple industries leveraging over 3,400 skilled resources globally and is an industry leader in helping clients move to the cloud.

Avanade has a broad, cloud-based platform for analytics to support the needs of the modern digital insurer. Capabilities include a range of BI and analytics solutions, from digital analytics strategies to delivery of solutions.

Breadth of Functionality

Avanade has a broad, cloud-based platform for analytics to support the needs of the modern digital insurer. Capabilities include a range of BI and analytics solutions, from digital analytics strategies to delivery of solutions. Avanade is able to accelerate the insurer’s analytics journey through seasoned industry experts, proven software platforms and solutions, a robust architecture, and a successful track record in insurance.

Case Study: Pacific Specialty engaged Avanade to design and build a data and analytics platform to provide employees with better insights into the business. The data and analytics solution is opening the door for the company to achieve its growth goals. The solution allows operational and executive users to gain valuable insights into existing policyholder behavior and trends in order to improve performance ratios and inform new product development.

- ✔ **ACAI:** Avanade Customer Analytics Insight (ACAI) supports a Best Next Action approach to the digital customer experience through the use of a predictive modeling engine, a management console, and a configurable business rules module.
- ✔ **AMAP:** Advanced Modern Analytics Platform (AMAP) is a comprehensive analytics offering designed to integrate in a modular fashion with existing enterprise platforms and tools. The offering includes a growing library of technology and use cases for insurance and other industries.
- ✔ **RPA:** Robotic Process Automation (RPA) quickly automates high-volume, highly repetitive manual tasks without replacing existing systems.
- ✔ **Power BI (Microsoft):** Power BI from Microsoft is an advanced data visualization tool with extensible plug-in visuals, natural language query capability, and AI-enhanced data exploration.
- ✔ **Cortana Intelligence (Microsoft):** Cortana Intelligence Suite from Microsoft supports machine learning, traditional analytics, structured and unstructured data, and a growing number of advanced AI and cognitive computing components that fit into AMAP.

The Avanade model for applying advanced analytics for driving innovation is to identify business-defined problems, pilot at a low cost, then scale as value is proven. Their designs support zero-day provisioning and low up-front costs. Created in 2000 by Accenture and Microsoft, Avanade brings together the best of the companies, uniting Accenture’s consulting, business, and industry acumen with Microsoft’s enterprise-class software.

The alliance is the largest and most significant relationship of its kind for these companies, bringing to bear the largest collection of Microsoft-skilled resources in the world.

Visit <http://www.Avanade.com/insurance> for more information.



STRATEGY MEETS ACTION COMMENTARY

Insurers are clearly at a critical juncture with the adoption and evolution of analytics. Actuarial capabilities around analytics are pervasive, but insurers are in deep need of new customer and business insights and the ability to leverage new data sources – and they need them now. There are also critical internal employee issues related to difficult culture changes emanating from an analytics-driven decision environment. New millennial employees are looking to work for organizations that utilize the technologies they are familiar with to assist in job execution. It is rare to find an organization that brings a heritage of cultural transformation and change management, IT implementation success, and a global technology stack that is pervasive across commercial as well as personal entities. Avanade should be on the short list of service providers that can assist insurers with the challenging task of morphing from a traditional insurer into an innovation-based insurer.

ABOUT STRATEGY MEETS ACTION

Strategy Meets Action (SMA) is dedicated to helping the business of insurance modernize, optimize, and innovate for competitive advantage. Exclusively serving the insurance industry, SMA blends unbiased research findings with expertise and experience to deliver business and technology insights, research, and advice to insurers and IT solution providers. By leveraging best practices from both the management consulting and research advisory disciplines, we take a unique approach – offering an unrivaled set of services, including retainers, research, consulting, events, and innovation offerings.

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