GO All in! IASA 2015

Educational Conference & Business Show
June 7-10, 2015 • Mandalay Bay, Las Vegas, NV
Taking Analytics to the Next Level

Session 272
The Panelists

Pat Saporito
Monique Hesseling
Louis Bode
Taking Analytics to the Next Level:

State of the Market
Internet of Things is Disrupting all Industries

- 1 billion Facebook users
- Data doubles every 18 months
- 4 billion YouTube views per day
- 5 billion in emerging middle class
- 15 billion web-enabled devices
“World Class Analytics”
Often Described, Rarely Achieved
Organizations Need to Mature their Analytics to Attain that Value
Unlocking the Value of “Dark Data”

Use Analytics Today
- 10%
- 75%

Need Analytics by 2020

Missing new insights
Not utilizing all the information out there

IT is not agile enough and the business wants to get involved
Ability to manage and consume all data is getting harder

Bottom Line: Not leveraging the power of collective insight

It takes not just “data scientists,” but a data democracy

Nucleus Research, Gartner, Fortune Magazine
Analytics Challenges

- Data Governance
- Staffing and Skills
- Unsure of the Technology Requirements
- Cost vs. Value
- Culture & Change Management
- Connect people to information in the moment they need it and in the right experience
Reality of Analytics in Insurance Today

Analytics Use is Siloed Today

Analytics is most highly leveraged in the evaluation of risk, especially in actuarial and in underwriting. They are used less extensively for customer oriented areas such as marketing and distribution.


Result: Only attaining partial value from analytic investments
Optimize Value: Integrated Analytics

Integrate and apply across all business processes.

Business rules, data and KPIs should be leveraged across business.

Example: The business rules used in claim detection fraud can also be applied upfront during the underwriting process.
Insurance Analytics Evolution
Strategy to Execution

**BI Strategy**
- Corporate Strategy
- BI Strategy & Roadmap
- Strategically Aligned
- New Data / Capabilities
- Corporate Data Strategy & Metrics

**BI Execution (BICC)**
- Ad Hoc Reporting
- Operational Reporting
- User Access & Usability
- Self Service
- Exploration & Visualization
- Real Time Analytics
- Improved Decisioning
- Predictive Analytics

Link & Align Strategy to Execution

- Executive Business BI Sponsor
  - BI Governance
  - BICC & BI Team
  - Information Architecture
  - Technologies & Tools
  - Sustained Funding

Feedback to Strategy

- Data Governance
  - Trusted Data / Data Confidence
  - User Training & Development Needs
  - Increased User Adoption
  - Increase BI Maturity
BI Strategy Pillars

**Create Vision**

**Define Strategy**

**Operationalize with a BI Competency Center**
Taking Analytics to the Next Level:

Insurer Discussions
Our mission is to help insurers make wise technology investments that enable business value by advising, influencing and keeping a pulse of the industry...

- Advisory Retained Relationship
- Research – Syndicated and Custom
- Next-Gen Innovation
- Project-based Consulting
- Events – Summit, Awards, Forum
SMA Top 10 Imperatives for Insurers

- Leverage MATURING and EMERGING Technologies
- Create and Execute a DIGITAL STRATEGY
- Drive Value Through Improved CUSTOMER EXPERIENCE
- Achieve Responsive PRODUCT CONFIGURATION
- Implement OMNI-CHANNEL Capabilities
- Optimize CLAIMS Beyond the Transaction
- Execute on CORE TRANSFORMATION
- Interconnect Intelligence for UNDERWRITING

INNOVATE to become a NEXT-GEN INSURER

Source: Strategy Meets Action 2015
## 2015 Top Strategic Initiatives & Investments

<table>
<thead>
<tr>
<th>Category</th>
<th>Initiative</th>
<th>Percent of Insurers Citing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer Engagement and Experience</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td>Channel Expansion and Experience</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>New Customer Segments</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>Digital Insurer</td>
<td>52%</td>
</tr>
<tr>
<td><strong>Core</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core System Replacement</td>
<td>68%</td>
</tr>
<tr>
<td><strong>Products &amp; Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Products and Services</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td>Risk Model Transformation</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Geographic Expansion</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Emerging Techs &amp; Trends</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Innovation and R&amp;D</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>Outside Industry Partnerships</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>Aerial Imagery, Drones, Geospatial, and Mapping</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Internet of Things, Wearables, Driverless Vehicles</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: SMA Research, Insurance Ecosystem 2015, n=105

# IASA2015
The investment patterns for BI and analytics tools are consistent with the last two years. Traditional BI tools are still experiencing new investments, are expanding into other business areas, and are moving toward enterprise-wide BI.

Predictive analytics/models are the top area of investment in the advanced analytics space. This closely aligns with a continued focus on market segmentation, new products, and expanding sources of data to assess risk.

The percentage of insurers investing in big data continues to increase, from 7% in 2012, to 9% in 2013, and 12% in 2014. This represents a higher percentage of the insurers over $1B in premium and a few innovative smaller insurers.
Top 5 Areas for Analytics Today

1. Pricing models
2. CAT models
3. Financial management
4. Underwriting profitability
5. Product profitability

- Predictably, the top areas of analytics usage are in product and risk management. However, the areas of pricing and CAT models are undergoing significant upheaval with the explosion of data sources, advanced technologies, and the embedding of analytics in business processes to gain new and more sophisticated and precise views of risk.
- Financial management (investment mgmt., capital allocation) continues to be a top area given the economic climate.
- Growth and profitability remain key drivers for insurers, thus the focus on underwriting and product profitability. Conspicuously missing from the top 5 areas today are customer-centric analytics, although that is expected to change.

#IASA2015
Adoption of Traditional BI Solutions

The industry is in the early stages of enterprise-wide Business Intelligence (BI). As indicated in Figure 2, only a small percentage of insurers deem their BI capabilities to be advanced enterprise-wide.

Only about half of P&C insurers report that they have advanced reporting (12% enterprise-wide and 36% in key areas). Those with advanced capabilities have flexibility to report more frequently and change or update reports quickly.

Ad hoc queries and drill-down analysis capabilities are the two top areas of advanced usage for traditional BI tools. Dashboards/scorecards are increasing in importance, and we expect more movement toward enterprise-wide capabilities.
Adoption of Advanced and Emerging Analytics Solutions

Many insurers report advanced usage of analytics, especially for predictive analytics/models and advanced statistical analysis. Predictive capabilities have high visibility, but many opportunities exist to gain insights through statistical tools.

Once again, only a small percentage have enterprise-wide capabilities, but this is changing as more insurers establish senior executives and cross-functional teams with the charge to guide and foster analytics across the company.

Important and potentially differentiating activities are underway for data/text mining, analytics collaboration, and cognitive computing.
Use of Analytics for Customer, Marketing and Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>In Use/Implementing</th>
<th>Evaluating/Piloting</th>
<th>Planning Over the Next 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent performance</td>
<td>10%</td>
<td>14%</td>
<td>21%</td>
</tr>
<tr>
<td>New business</td>
<td>55%</td>
<td>42%</td>
<td>21%</td>
</tr>
<tr>
<td>Customer segmentation</td>
<td>36%</td>
<td>10%</td>
<td>26%</td>
</tr>
<tr>
<td>Channel performance</td>
<td>26%</td>
<td>26%</td>
<td>31%</td>
</tr>
<tr>
<td>Customer relationship management</td>
<td>21%</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>Customer lifetime value</td>
<td>24%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Single view of the customer</td>
<td>21%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Campaign analysis</td>
<td>19%</td>
<td>17%</td>
<td>21%</td>
</tr>
<tr>
<td>Social media analytics</td>
<td>17%</td>
<td>12%</td>
<td>31%</td>
</tr>
</tbody>
</table>

- Usage of analytics for customer, marketing, and distribution is generally lower than in other areas of the business. However, these areas have the highest percentage of insurers planning new projects over the next three years.
- Agent performance and new business analysis are the top two areas and are expected to have increased focus over the next three years. Customer segmentation is the top area for new projects over the next three years, with 43% of insurers planning efforts in that area, and another 10% piloting or evaluating today.
- Investments in all of these areas are vital to customer experience initiatives, redefining the Next-Gen Insurer.
Use of Analytics for Actuarial, Underwriting and Product Management

The areas of risk management, product management, and underwriting remain the top areas of analytics focus by P&C insurers. Almost every specific business area identified in Figure 6 shows that a majority of responding companies leverage analytics.

There continues to be significant activity in these areas, building on the years of business priority and use, with a focus on leveraging new sources of data, transforming and innovating the business, and embedding real-time analytics in specific business processes.
Use of Analytics for Policy Service, Billing and Claims

Figure 7. Usage and Plans for Policy Service, Billing, and Claims Analytics

- Analyzing profitability by various key dimensions is the top area for analytics in core systems. With increased focus on detailed profitability due to the economic climate, growth is continuing to drive new initiatives, with 12% of P&C insurers piloting or evaluating, and 27% planning new projects over the next three years.

- Equally important are key operational areas including policy in-force, operational metrics, and reporting.

- Claims recovery and fraud prevention and detection are the top areas for analytics investments, with almost half of the respondents piloting or evaluating new solutions today or planning future investments.
Taking Analytics to the Next Level:

A Practitioner’s View
BIG DATA

My Data
Customer Data
Industry Data
Social Data

Project

Solution 1

Solution 1
Here are few interesting ideas to reflect on:

• What are we **thinking**?

• What is my **critical** need?

• How do we get the **buy in** we need?

• What does the **future** really look like?
What are we thinking?

Is anyone happy?
- Underwriters
- Producers
- Actuaries
- Executives
What are we thinking?

Figure 7. Respondents’ profile in Accenture North America Commercial Insurance Underwriting Survey 2013.

- **Job Title**
  - Underwriter: 33%
  - Senior Underwriter: 29%
  - Department/Product Manager: 28%
  - Other Underwriting Executive: 10%

- **Primary Area of Focus**
  - Commercial Lines: 83%
  - Specialty Lines: 9%
  - Reinsurance: 1%

- **Company’s 2012 Net Premiums Written (USD)**
  - Less than USD $100 million: 28%
  - USD $100 million – USD $500 million: 21%
  - USD $500 million – USD $1 billion: 24%
  - Greater than USD $1 billion: 29%

Source: NA Commercial Insurance Underwriting Survey, 2013
What are we thinking?

Figure 5. Underwriters believe that technology increased their workload.

- Workload increased: 54%
- No change: 16%
- Workload decreased: 30%

Increase of 20 basis points since 2008

Base size: All respondents (n=559)
Source: NA Commercial Insurance Underwriting Survey, 2013

Figure 6. Rank the reasons why technology has increased your workload.

- Lack of data integration: 81%
- Lack of process integration: 67%
- Insufficient training: 56%
- System performance issues: 48%
- System is not intuitive, not easy to use: 48%

Selected within top 3 choices

Base size: Respondents who indicated workload increased through technology (n=306)
Source: NA Commercial Insurance Underwriting Survey, 2013

It often means that underwriters spend their time jumping from task to task, re-entering data into different tools to reach a decision. A confidential study by a leading insurer of its internal processes suggested that 20 percent—or a full working day each week—of each underwriter’s time was spent on non-core tasks. Underwriting solutions need to focus on integration that presents data and insight to the underwriter at the point of need. Every extra system, tool, data entry, and mouse click adds to underwriting complexity, inefficiency, cost—and a less-than-positive underwriter perception of value.
A Ouija Board and an Underwriter

15 minutes with Louie Bode, solutions architect for Great American Insurance Group.

February 28, 2013

Chris McMahon

It’s not just the technology that’s changing, or even how we use it. Technology is driving societal changes, from where we live, to how we work. Insurance Networking News asked Louie Bode, Solutions Architect for Great American Insurance Group, what changes insurers are anticipating and how they are coping with the acceleration of change.

INN: Your title is ‘solutions architect,’ not systems architect. What’s the difference?

LB: My job is to help define solutions to problems, and they may not be technology related. It could be process, people or thought related. There’s a lot more to finding a solution than just writing code.
What are we thinking?

Big data and actuaries – are we part of the solution?

May 11, 2014

The Actuaries Institute had a financial services forum last week, which I managed to get to some of. My first report is of the Big data plenary session which closed the conference.

I’ll start with some background reading:

Cheerleaders for big data have made four exciting claims, each one reflected in the success of Google and Facebook: that data are the new oil; services are better if they can be personalized; that more data is better than less data; and that the more data you have, the more you can make of it.
What is my critical need?

Is there an ROI in analytics?

• We have identified areas within the organization that we can create an analytics program, but do we need to think of these as separate programs?
  – Marketing
  – Underwriting
  – Claims
What is my critical need?

- Can we strive for an analytical mindset across the organization. One effort with many reuses. What is the problem we are trying to solve? Is analytics fundamentally unique to each area of the insurance organization?
  - Marketing
  - Underwriting
  - Claims
What is my critical need?
What is my critical need?

Is Analytics fundamentally unique to each area of the insurance organization?

It is all fundamentally the same. When it comes down to it, it is just data. Whatever the area is in our organization, that we are trying to help, the fundamental mechanics of data driven analytics is the same. Collecting, cleaning, understanding, storing and retrieving data, at the opportune moment, in a manner in which it could be understood by the end benefactor is a fundamental cornerstone to all things analytics.
How do we get the buy in we need?

1) Have A Good Story
2) Build A Team
3) Think Like An Entrepreneur
How do we get the buy in we need?

Have A Good Story

1) Make sense
2) Have the ability
3) Build the passion
How do we get the buy in we need?

Build A Team

1) Identify the Doers
2) Stitch together the departments
3) Build the passion
How do we get the buy in we need?

Think Like An Entrepreneur

1) DO the first two steps.
2) Get the buy in.
3) Raise the Capital.
What does the future really look like?

When you DO succeed and you put it all together that is what your analytical program could look like.
Please Complete the Session Evaluation Form on the Conference App