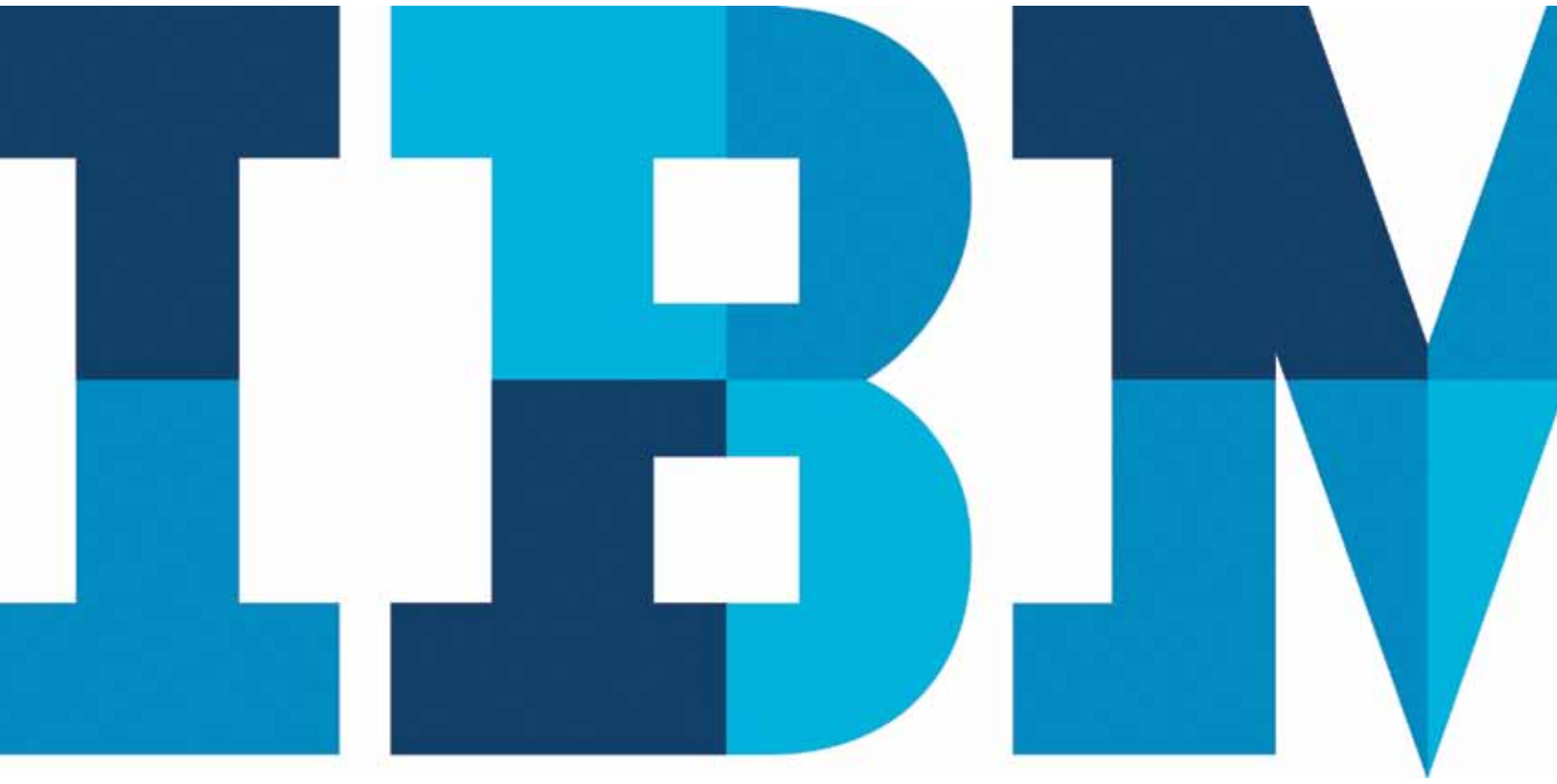
Three Ways to Improve Claims Management with Business Analytics



Overview

Filing a claim is perhaps the single most important "moment of truth" in the relationship between insurers and the insured. It lays the foundation for customer satisfaction, profitability and positive word-of-mouth for attracting new customers. The speed, accuracy and effectiveness of claims processing is also paramount for controlling costs, managing risk and meeting portfolio underwriting expectations. As the single largest expense for insurers, claims management is fundamental to success in the insurance industry.

In today's environment of intense competition, lower investment returns and higher customer churn, insurers are seeking the most effective strategies for mastering claims management. Many insurers still rely on intuition and subjective "gut-level" decisions for processing claims. Others use static, pre-defined business rules that automate how claims are processed. However, both of these approaches are limited when you consider the complex web of ever-changing conditions, variables and consequences represented in the processing of each individual claim.

In this white paper, you will learn how business analytics is helping insurers overcome these challenges and transform the way they process claims. By combining business intelligence and predictive analytics technologies, business analytics offers a particularly powerful resource for determining how to treat an individual claim at every stage of the claims lifecycle. As you will see, the optimization of claims management through business analytics can increase customer satisfaction, control claims-related costs including fraud, and improve the utilization of claims resources for a competitive advantage.

The challenges of claims management

Claims management professionals have to deal daily with formidable, and sometimes competing, challenges including:

- **Deliver a superior customer experience**—Nothing is more important to a customer's perception of an insurance company than the experience of filing a claim. Insurance organizations need to focus on key customer interactions such as claims processing, policy renewals, buying new products, referrals, and understand what those experiences are like for customers. Using that insight, they can better allocate resources to the operational processes that most impact retention and satisfaction.
- **Control claims payout and operational costs**—Claim payouts and loss adjustment expenses represent the largest portion of all insurance expenses. Insurers that rely on static, manual processes to handle simple claims or rely on subjective opinion to determine subrogation opportunities, will suffer unnecessary costs and worsened combined ratios in comparison to competitors who take an analytics-based approach.
- **Manage risk**—Detecting and avoiding unnecessary payments from fraud represents an "easy target" for insurers to reduce risk exposure and control losses. In addition, the ability to gain a deeper insight into risk exposure in order to determine optimal reserve adequacy can have significant benefits for an insurer's bottom line.

Staking the claims process on business analytics

Infinity Property & Casualty Corporation used business analytics to reduce payments on fraudulent claims, reduce loss adjustment expenses and improve its ability to collect payments from other insurance companies.[1]

Infinity achieved a payback on its predictive analytics investment in only three months, and gained an annual ROI of 400 percent for direct and indirect benefits in the following areas:

- Increase of $12 million in subrogation recoveries
- As much as 95 percent reduction in time required to refer questionable claims for investigation
- Increase in success rate in pursuing fraudulent claims from 50 percent to 88 percent
- Ability to keep 25 percent of claims within the company's first notice of loss area (up from 4 percent), enabling Infinity to sharply improve its Loss Adjustment Expenses (LAE) ratio

"Whether it's fraud reduction, customer convenience or cost control, leveraging intelligence will be increasingly important to the way we differentiate ourselves in the future. We've shown our willingness to take some chances to make this happen and we have the results to show for it," said Bill Dibble, SVP of Claims Operations, Infinity Insurance.

How business analytics works

The term "business analytics" refers to a broad business approach that combines advanced business intelligence capabilities with the science of predictive analytics. The business intelligence aspect of this equation provides insight into business decisions and the effects of those decisions in meeting corporate goals and objectives. Predictive analytics employs advanced analytical algorithms to process historical business data and create models that can make predictions about future outcomes. Each of these capabilities is powerful in and of themselves. When combined as business analytics, they provide breakthrough capabilities for improving business performance.

Business analytics helps connect data to effective action by drawing reliable conclusions about current conditions and future events. It enables organizations to make predictions and then proactively act upon that insight to drive better business outcomes, achieve measurable competitive advantage and meet corporate business goals. It enables organizations to adopt a "predict and act" approach to business decision making by answering questions such as:

- **How are we doing?**—Answering this question requires combining two perspectives: how an insurer thinks its claims process is performing, and its customers' perspectives regarding their claims experiences.
- **Why?**—Using a wide range of analytical techniques, this question can be answered by digging into and making sense of the massive amounts of data available throughout most organizations. For example, insurers can uncover the patterns that determine the potential for fraud or impact customer satisfaction and retention.
- **What should we be doing?**—In terms of claims management, the answer to this question will help optimize actions at both the individual claim level and the portfolio level. This optimization happens at the point of impact in real time through an analytics-driven claims management process.

Moving from art to analytics

Historically, claims decisions related to fraud or payouts have been made on the basis of the "art" of anecdotal experiences and hunches of seasoned domain experts. These "gut feel" decisions are subjective, often inconsistent and do not adapt well to changing circumstances, thereby limiting their value. Some organizations have moved to automate decision making by using business rules to standardize simple decisions to make them more consistent and reliable. Although this automation provides a degree of efficiency and objective consistency, static rules quickly become obsolete amid the complexity of ever-changing conditions and situational variables. In addition, they provide a "one size fits all" approach to decision making that cannot adjust to the circumstances and needs of individual cases.

Using business analytics for claims performance assessment and predictive decision making is a more flexible and effective approach. That is because predictive models consider all available data and continuously adapt to new information, becoming smarter and more effective over time. These predictive decisions are customized for each unique case, rather than using intuition, generalizations or rigid rules. Plus, with business intelligence insurers can gain insight into the overall performance of the claims process and drill down to determine the underlying root causes of issues. This insight then feeds back into the predictive analytics process to help fine tune models and improve results.

According to a study from analyst firm IDC, the median ROI for analytics projects that incorporated predictive technologies is 250 percent, compared with a median ROI of 89 percent for projects that did not.[2]

Three ways to improve claims management with business analytics

Insurance providers have access to massive volumes of information about their customers and the organization. However, much of this information and the insight into business outcomes it contains goes unused, or is not leveraged to its full advantage. Business analytics harnesses this data to help improve claims management, solve problems, improve performance and drive better business outcomes. In particular, it helps insurers:

- **Know your customers.** To transform customer relationships, and improve retention and profitability, insurers need to optimize every customer interaction, especially the experience of filing of a claim. But in order to do so, they first need to understand who their customers are and what they want. Business analytics provides a single view of the customer across many variables including products, regions, demographics and behaviors. Insurers can use this insight to understand each customer and the factors that contribute to customer retention, profitability and satisfaction. They can analyze data from call scripts, historical data and social media to predict customer responses and behaviors. This insight can then be delivered directly to agents, claims adjusters or call center employees through reports or interactive dashboards. With this 360-degree view of each customer, insurance professionals can improve every customer interaction including the fast tracking of simple claims, or proactively offering renewal or additional products that customers actually want.
- **Improve operational efficiency.** Business analytics also improves operational efficiency and effectiveness by determining the right resource for a particular claim based on its complexity, likelihood of fraud or churn risk. It applies advanced algorithms to identify claims that will likely require specific resources such as senior handling teams, litigation support or third-party services such as external assessors or a rental car agency. By improving the claims triage process using severity scoring and fraud analytics, insurers are able to route claims to the appropriate adjusters, and redeploy highly skilled adjusters and investigators to focus on complex claims.

  With business analytics, insurers can segment and determine the appropriate treatment for each type of claim. Simple, low-risk claims can qualify for immediate payment, while more complex claims can be sent to the right person directly, without the usual escalation process. Because claim payouts represent the largest portion of insurance expenses, faster and more efficient claims handling through business analytics can generate dramatic benefits for an insurer's bottom line.

- **Manage risk.** Business analytics also helps insurers identify, predict and minimize fraud by performing a deep analysis of each claim. For example, insurers can use this technology to analyze textual claim data such as accident descriptions for indicators of fraudulent behavior, determine if a claim will likely involve a legal dispute, or if a claim can likely be recovered from a third-party insurer. They can even automatically detect new forms of fraud through analytics that "learn" from the data and generate more accurate results with each iteration. At the same time, business analytics also helps insurers understand their risk exposure and determine the financial impact of claims processing. For instance, identifying a greater number of potentially fraudulent claims could require additional resources for investigation and processing. In this way, insurers can gain a timely, accurate and consistent understanding of claims risk across the organization.

Using business analytics to guide claims management can help strike the right balance between enabling superior customer experience, cost containment and minimizing the risk of claims leakage. For each new claim, insurers can assess likelihood of fraud and leverage analytics to determine how to minimize leakage and maximize profitability. And because business analytics provides deep insight into the variables and interrelationships that define risk, insurers can craft premiums and coverage that best fit customer needs, and set more accurate and effective reserve adequacy for achieving better financial performance for the company.

The figure below shows an example of how business analytics can provide recommended actions for dealing with individual claims.

Figure 1: After analyzing each claim for fraud, complexity and potential customer attrition, recommended actions are provided to generate the most positive business outcomes.

Faster claims processing for better customer service

Santam Insurance, South Africa's largest short-term insurance company, used business analytics to improve customer service by settling claims 70 times faster than before, while improving its fraud detection capabilities. Also, Santam cut operating costs by reducing the number of mobile claims investigations.[3]

Santam's business analytics solution automatically scores each claim according to its risk level, and then recommends the appropriate processing channel for settlement or further investigation.

"Within the first four months, we had saved R17 million on fraudulent claims, and R32 million in total repudiations – so the solution delivered a full return on investment almost instantly!" said Anesh Govender, Head of Finance, Reporting and Salvage, Santam Insurance

Making smarter decisions

There are many decisions in the claims management process that can benefit from the insight of business intelligence combined with the foresight of predictive analytics. The figure below shows a simplified claims process flow, and highlights a few examples of the decisions that business analytics can help to improve:

Figure 2: The yellow diamonds represent decision points that can be automated and optimized with business analytics.

Typically, an insurer would start with one or two of these decision points or processes and then extend the use of business analytics to all relevant points in the claims process. Using such a pragmatic "journey" approach is recommended as opposed to a "big bang" approach. Business analytics can provide answers for questions at every stage of the claims lifecycle including:

Q: What is the right amount to reserve for an individual claim?
A: Suggests the reserve adequacy amount most appropriate given the full set of claim characteristics to help control reserve creep with increasing risk exposure.

Q: Which resource is best suited to deal with an individual claim?
A: Identifies the right resources at the right time to reduce handling expenses.

Q: Should I assign this claim to an outside party?
A: Identifies which claims are likely to require external resources later on in the handling process.

Q: Should I investigate this claim for fraud?
A: Identifies claims with the highest likelihood of avoiding (full or partial) payout to reduce unnecessary payouts.

Q: Which claims should I investigate first?
A: Identifies referrals with the highest likelihood of a successful investigation outcome.

Q: Should I subrogate this claim? Which ones should I chase first?
A: Identifies the claims with the highest likelihood of successful recovery to help maximize the amount recovered from third parties.

Q: Should I make this customer a cross-sell or retention offer?
A: Identifies the offer with the highest likelihood of being accepted by the customer.

Q: Should I invest time in a specific proposal to improve the customer experience?
A: Identifies which customer satisfaction issues are the strongest drivers of policy cancellations and which actions will improve retention.

A better bottom line through business analytics

Zorg en Zekerheid, a regional health insurer in the Netherlands, used business analytics to reduce costs and keep premiums affordable by reducing fraudulent claims.[4]

Instead of manually selecting data on the basis of risk indicators, the firm's business analytics solution automatically discovers patterns and anomalies in claims, significantly improving the accuracy of fraud detection. Since implementing business analytics, the financial results of its Special Investigation Unit have doubled each year since 2007.

"While previously the full investigation process might have taken weeks, we're now able to track down fraud cases within days," said Andor de Vries, Fraud Analyst, Zorg en Zekerheid.

IBM Predictive Analytics and Reporting for Claims (PARC) solution

IBM has assembled a powerful claims analytics solution that combines state-of-the-art IBM SPSS predictive analytics and IBM Cognos business intelligence and performance management technologies. The solution is a template for integrating IBM business analytics software to accelerate and improve the key stages of the insurance claims life cycle and supporting workflow.

PARC can help insurers achieve highly effective claims management through better fraud detection, improved subrogation and claims right-tracking capabilities, providing new value across the insurance claims processes. Through the capabilities of predictive analytics and business intelligence, insurers can use PARC to significantly improve claims processing and reap the benefits of superior operational effectiveness, cost containment and increased customer satisfaction.

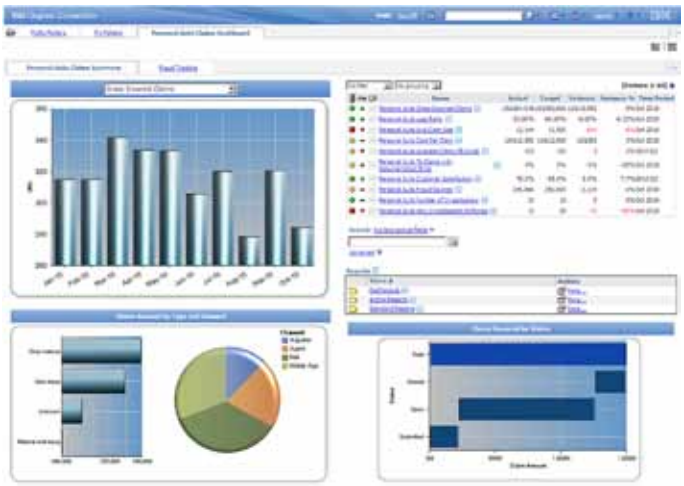


Figure 3: IBM PARC is an implementation accelerator that provides templates and best practices for using IBM business analytics applications to optimize and automate claims processing.

As shown in the image above, PARC provides a high-level understanding of overall claims performance as well as drill-down capabilities for analyzing individual claims. Through a series of business intelligence reports, scorecards, dashboards, KPIs and analyses, executives and claims staff gain a comprehensive multi-dimensional view into the performance of the claims operations. In addition, individual claims can be scored at one or more points in the claims lifecycle to determine the next best action to take. This real-time scoring combines the insurer´s business rules with predictive models and is integrated directly within the insurer´s claims handling system, as shown in the image below.

Figure 4: The IBM PARC solution scores individual claims and provides a recommendation for the next best action to take.

PARC shows how to combine IBM SPSS predictive analytics, SPSS deployment services and IBM Cognos business intelligence technologies to enhance customer interactions, improve operational efficiency and manage risk for a faster, more profitable claims management system.

Conclusion

As insurers face the challenges of increased competition and customer churn, the ability to execute highly effective claims management has become critical for success. Using business analytics software is an exceptionally valuable approach for helping insurers improve claims processing to accelerate operational efficiency, contain costs and increase customer satisfaction and retention. The IBM Predictive Analytics and Reporting for Claims solution combines predictive analytics with business intelligence and performance management technologies to help insurers gain the full benefits of improved claims processing and significantly impact their bottom line.

About IBM Business Analytics

IBM Business Analytics software delivers actionable insights decision-makers need to achieve better business performance. IBM offers a comprehensive, unified portfolio of business intelligence, predictive and advanced analytics, financial performance and strategy management, governance, risk and compliance and analytic applications.

With IBM software, companies can spot trends, patterns and anomalies, compare "what if" scenarios, predict potential threats and opportunities, identify and manage key business risks and plan, budget and forecast resources. With these deep analytic capabilities our customers around the world can better understand, anticipate and shape business outcomes.

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For further information or to reach a representative please visit ibm.com/software/analytics/insurance

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To request a call or to ask a question, go to ibm.com/business-analytics/contactus. An IBM representative will respond to your inquiry within two business days.

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Produced in the United States of America
December 2011

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2 "The Business Value of Predictive Analytics" IDC June 2011

3 "Santam Insurance boosts customer service and beats fraud," IBM Case Study. http://www01.ibm.com/software/success/cssdb.nsf/CS/STRD8JJETD?OpenDocument&Site=default&cty=en_us

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