



Contents:

- 1 Optimizing claim handling
 - 2 Improve claim handling with real-time risk assessment
 - 3 How do predictive analytics solutions work?
 - 4 Increase customer satisfaction with fast-track claim approval
 - 5 Reduce claim handling costs and loss adjustment expenses (LAE)
 - 5 Improve claims fraud detection cost-effectively
 - 6 Predictive analytics for risk assessment
 - 7 Conclusion: Improving profitability throughout the organization
 - 8 About IBM Business Analytics
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Increasing customer satisfaction and reducing costs in property and casualty insurance

Optimizing claim handling

In today's commoditized climate, the ability to provide good customer service can help an insurer differentiate itself from the competition. Since a customer may not have much regular interaction with his or her insurer beyond the semi-annual renewal process, the real test of an insurer's ability to provide satisfactory service is how quickly the company responds when the customer files a claim.

By settling a claim quickly and involving fewer handlers, insurers satisfy their customers and keep claim-related expenses to a minimum. The longer a claim remains open, the more valuable it becomes; a major reason for increased claim value is the cost of medical care for injured claimants. Insurers must be able to resolve these claims quickly in order to keep medical costs and associated handling costs from increasing even further.

Another challenge, fraud, continues to drain insurer resources. Even generally honest customers may try to pad claims to cover their deductibles or make up for the premiums they've paid over the years. In fact, of the estimated \$30 billion in losses attributed to property and casualty insurance fraud in the U.S., more is related to this type of opportunistic fraud, also known as buildup or soft fraud, than to the more complex fraud schemes that garner the most publicity. Though the public is increasingly intolerant of fraud, many still believe it's acceptable to exaggerate or inflate insurance claims in certain circumstances.

While more complex fraud, also known as hard fraud, is less common, the methods and schemes devised by fraudsters are becoming increasingly complex and sophisticated.

Every insurer wants to reduce claims fraud, but doing so cost effectively is difficult. Most property and casualty insurers have a combination of voluntary and mandated systems in place for detecting and preventing fraud. Many, however, rate their efforts as only moderately effective.



In this paper, you'll discover how you can cost effectively achieve both your customer service and fraud prevention goals with a real-time, automated risk assessment application that integrates directly into your existing claim management system.

The real challenge for insurers, therefore, is how to fight fraud more effectively, without incurring greater costs or negatively affecting customer service.

Improve claim handling with real-time risk assessment

IBM SPSS predictive analytics solutions instantly assess the fraud risk of submitted claims and enable you to move quickly – and in many cases, instantly – to settlement or investigation. These solutions use proven technologies known as business rules and predictive modeling, which analyze historical claim data to predict claimant behavior and identify both known and new fraud risks.

Business rules capture the suspicious fraud indicators, or behaviors, for your industry. However, the implementation of business rules is not a one-time activity. Your organization also has the flexibility to implement new business rules to account for specific events or new indicators. For example, when tornados, hurricanes and hail storms occur, you can rapidly implement new business rules that are specific to the affected region. Once identified, these business rules are combined with predictive modeling, which uses sophisticated techniques that enable organizations to analyze claims and detect forms of suspicious behavior that may indicate fraud.

Predictive modeling enables organizations such as yours to enhance their business rules by discovering forms of suspicious behavior which may have been occurring, but have gone undetected, and – more importantly – by discovering new forms of suspicious behavior as they occur. Because fraudsters frequently develop new means for perpetrating fraud, companies need an early warning system to detect them.

Our predictive analytics software uses real-time decision optimization, which immediately assesses claims at the point of submission and assigns a score based on the potential fraud risk associated with that particular claim.

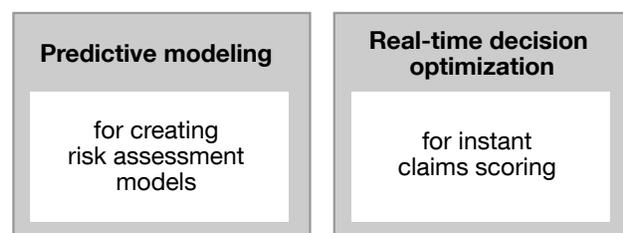


Figure 1: IBM SPSS solutions combine advanced analytics and real-time decision optimization to accurately assess claim risk at the point of claim notification.

“Eighteen of the top 18 domestic property and casualty insurance companies are IBM SPSS customers.”

— Reported numbers are compared to 2008 FORTUNE 500 industry lists

This combination of analytics and decision optimization enables you to settle legitimate claims quickly – often in as little as one phone call or one online session – and to detect potentially fraudulent claims before they increase your costs and impact other critical measures of performance.

IBM SPSS predictive analytics enable you to:

- Approve low-risk, legitimate insurance claims quickly to satisfy valuable customers and minimize loss adjustment expenses (LAE) and claim handling costs
- Identify potential fraud at an early stage with a high degree of accuracy – even with large claim volumes
- Understand why certain claims are flagged as suspicious, so internal investigators or Special Investigation Units (SIUs) know where to focus their efforts
- Combine and analyze data from multiple internal and external sources, including federal and insurance industry databases such as ISO ClaimSearch
- Integrate with existing claim management systems without extensive customization or lengthy implementation periods
- Analyze textual claim data, such as accident descriptions, for other indicators of fraudulent behavior

How do predictive analytics solutions work?

When a customer makes a claim – whether through a call center, online form or in-person visit – the IBM SPSS software analyzes the claim information against a combination of customer information, claim type characteristics, business rules and fraud risk data. Based on this analysis, each claim is assigned a score that reflects its level of exposure and fraud risk. Each score is backed up by understandable descriptors such as “accident happened at night, there were no police at the scene,” so claim handlers or investigators know why a claim received a particular score.

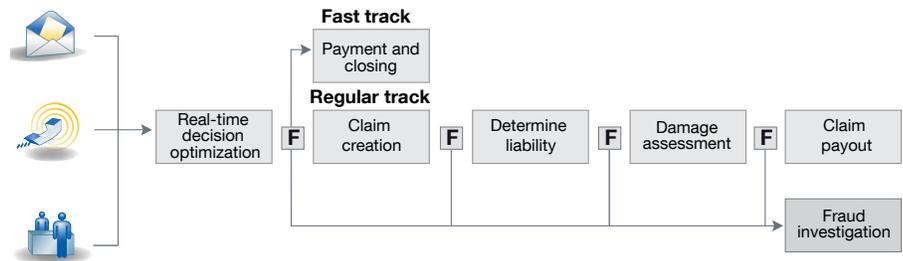


Figure 2: **Real-time Fraud Detection** The risk assessment workflow moves quickly from the first notice of loss to settlement or investigation.

Low-risk claims, for example, are scored for fast-track approval, payment and closing. If a claim is scored as medium-risk, or is missing critical information, the IBM SPSS solution prompts the agent or claim handler with “smart” questions during the initial call or session. High-risk claims are scored for referral to an investigative team or SIU.

For example, some insurance companies use predictive analytics to settle more claims through fast-track processing and to detect a greater percentage of fraudulent claims. The application has enabled insurance companies to improve customer service, reduce claim handling costs up to 40 percent and make significant progress toward doubling the amount of fraud detected.

In fact, property and casualty insurers worldwide rely on predictive analytics to help them retain valuable customers while reducing handling expenses and detecting a greater percentage of fraudulent claims.

Increase customer satisfaction with fast-track claim approval

It's no surprise that the speed with which you respond to claims can make or break your relationship with your customers.

According to a recent survey of property and casualty insureds, 94 percent of respondents who filed a claim in the previous five years cited quick resolution of an insurance claim as a highly important factor in the claims process – more important, in fact, than the settlement amount offered. When a claim was settled in one to three days, for example, only eight percent of respondents considered changing insurers. That skyrocketed to 65 percent, however, when insurers took more than 15 days to settle claims. In addition, customer dissatisfaction increased in proportion to the number of claim handlers customers spoke with during the claims process.

Our predictive analytics solutions enable you to settle most legitimate claims at the point of notification, with a minimum of handling. Whether claims are made through a call center, online self-service application or in person, you can assess them efficiently and accurately, and help your valued customers move forward.

For example, an insurer with several million customers handles hundreds of thousands of claims annually through its call center. Using predictive analytics to combine risk profiles with business rules, such as claim value guidelines, the company is able to resolve most legitimate claims in just one phone call, while increasing the percentage of fraudulent claims detected at an early stage. As a result, the company has reduced claim handling costs by 30 percent – an annual savings of several million dollars. At the same time, the company has improved customer service and satisfaction by resolving legitimate claims in less time.

Reduce claim handling costs and loss adjustment expenses (LAE)

Increasing customer satisfaction is not always synonymous with reducing costs. By settling more claims through fast-track approval, however, you can significantly limit both handling costs and LAE. In fact, insurers that use IBM SPSS software have reduced their claim handling costs by as much as 40 percent.

When you settle claims quickly, you not only reduce internal handling, you have fewer customers calling your service center or sending e-mails to follow up on their claims. If up to three out of five calls to your service center are customers following up on claims, the ability to settle claims quickly can significantly reduce the volume of calls handled by your inbound service systems.

Fast-track approval of claims can also help you limit loss adjustment expenses such as car rentals and hotel stays. Another benefit of expeditious claim settlement is that customers are less likely to retain attorneys. Finally, with medical costs in particular skyrocketing, continuously reducing LAE wherever possible can have a positive impact on your combined ratio.

Improve claims fraud detection cost-effectively

Every insurer wants to reduce claims fraud, but doing so cost effectively is a challenge. Our software uses sophisticated modeling techniques to help you:

- Increase the amount of fraud detected without increasing personnel
- Detect both existing and new types of fraud
- Flag potentially fraudulent claims for follow-up at an early stage, before perpetrators are able to cover their tracks
- Make better use of investigative resources by focusing on only those claims most likely to be fraudulent and most likely to be resolved
- Prioritize claims for investigation (based on risk level, value and solvability), and fully understand how to perform the investigation

IBM SPSS predictive analytics solutions use a multi-stage assessment process that re-evaluates claims based on the most up-to-date information. For example, a claim may be checked at first notice of loss, when the names of all involved parties are entered, and then again prior to payment of the claim. This ensures that settlement decisions take into account all of the data available for a particular claim.

Because our solution detects and refers potentially fraudulent claims at an early stage, your investigators are better able to follow up quickly, before perpetrators can blur the accident details. The software also pinpoints the critical risk characteristics for each claim, so investigators have a good starting point for their investigations. You also reduce costs and make better use of internal or external investigators or your SIU by referring only the claims most likely to be fraudulent.

For example, the underwriter for one of Portugal's largest banks wanted to reduce investigations of legitimate claims and detect new forms of fraud more quickly. Using our software, the company discovered that certain claim types are rarely fraudulent, and used that information to refine its legacy fraud detection system. In addition, the company used the information the software gathered about fraudulent claims to develop an early warning detection system for new types of fraud. In the future, the company plans to use IBM SPSS software to assess the risk of new insurance applicants, helping to improve the quality of its customer portfolio.

In addition to helping you detect claims fraud, our software can also be used to uncover internal fraud attempts. Examples include the intentional submission of incorrect claim information by a claim handler or independent financial advisor, or an adjuster working together with a certain bodyshop to increase the average repair sum. The IBM SPSS solution detects such anomalies.

Predictive analytics for risk assessment

To help you more accurately assess claim risk, IBM SPSS predictive analytics uses a unique combination of analytics technology and claims expertise that includes:

- A wide range of predictive modeling techniques to cover nearly all claim types and situations
- Internal expertise and industry best practices in the form of business rules that are easily modified when new information is available (We provide a list of up to 200 proven risk indicators)
- Text analysis capabilities that find key information in adjuster notes, call notes and other textual data sources, for more accurate risk assessment
- Intelligent scripting that prompts agents to fill in key missing information that could confirm or rule out fraud
- Real-time alerts that provide recommended actions to agents
- A multi-stage assessment process that incorporates information available throughout the claim cycle
- An open architecture that integrates easily into existing claim management systems and incorporates data from multiple internal and external sources

By providing a wide range of analytic techniques in conjunction with proven business rules, our solution ensures that you significantly reduce the number of claims falsely identified as fraudulent. Its sophisticated analytics are better able to correctly separate non-suspicious information patterns from those that indicate risk, even when those patterns change over time (such as when perpetrators adjust their techniques). This enables you to confidently focus your efforts on the claims most likely to result in a finding of fraud, and to settle legitimate claims efficiently.

For example, the IBM SPSS solution uses a technique known as irregularity analysis to discover new forms of fraud. This technique

analyzes claims and sorts them into groups according to specified characteristics. Claims that don't fit well into any clusters (known as outliers), or that fit into clusters that also contain cases of known fraud, are flagged as more likely to be fraudulent.

To provide the most accurate risk assessment, the software also includes information from textual sources, such as adjustors' field notes or written descriptions of accident scenes, which often contain critical observations. This ability to include all of the data related to a particular claim gives you more reliable risk scores and sets the IBM SPSS solution apart from the competition.

Conclusion: Improving profitability throughout the organization

While predictive analytics software enables you to detect fraud at the claim stage, its underlying risk assessment capabilities can also be put to use much earlier in the customer relationship. To that end, we also offer solutions for sales and marketing, and for underwriting.

For example, to improve your marketing and sales efforts, you can use predictive analytics to predict the behavior of prospective customers. Risk assessment models enable you to avoid higher-risk applicants and focus more resources on attracting and converting lower-risk, higher-value customers. These solutions can help you increase earned premiums, just as other predictive analytics solutions help you reduce incurred losses.

You can also use predictive analytics during underwriting to better assess future claims and fraud risks, and to produce a better risk estimation.

Companies that also offer credit products and other financial services will improve the quality of their customer portfolios – and their financial health – by using analytics to accurately predict future behavior, such as likelihood to default on a loan.

Organizations that use analytics to improve performance company-wide are known as Predictive Enterprises – able to direct and automate decisions to meet business goals and achieve measurable competitive advantage.

A property and casualty insurer might begin the process of transforming into a Predictive Enterprise by using analytics to more accurately predict claims fraud risk. Based on its successes in that area, it could then apply the same analytic techniques in its marketing and sales initiatives, to focus on higher-quality prospects. Eventually, it could use predictive analytics to help determine optimal pricing and to develop more compelling and profitable products.

IBM SPSS solutions enable you to become a Predictive Enterprise by providing the proven analytics that can help you improve effectiveness and increase profitability across your organization.

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision-makers trust to improve business performance. A comprehensive portfolio of business intelligence, predictive analytics, financial performance and strategy management, and analytic applications provides clear, immediate and actionable insights into current performance and the ability to predict future outcomes. Combined with rich industry solutions, proven practices and professional services, organizations of every size can drive the highest productivity, confidently automate decisions and deliver better results.

As part of this portfolio, IBM SPSS Predictive Analytics software helps organizations predict future events and proactively act upon that insight to drive better business outcomes. Commercial, government and academic customers worldwide rely on IBM SPSS technology as a competitive advantage in attracting, retaining and growing customers, while reducing fraud and mitigating risk. By incorporating IBM SPSS software into their daily operations, organizations become predictive enterprises – able to direct and automate decisions to meet business goals and achieve measurable competitive advantage. For further information or to reach a representative visit www.ibm.com/spss.



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