

**Implementing  
behavioral analytics to  
drive customer value:**

**Insurers cannot afford  
to wait.**





# imagine

Two customers phone into your call center. One customer recently inquired about increasing coverage when she got married, then researched policy cancellation on the website. The other customer searched for payment options. With this information, you can presume that different interactive voice response (IVR) options are appropriate. Yet when these customers phone into the center, they are presented with identical and equally frustrating automated responses. Because the technology fails to recognize the behavioral pathway that led to the call, the experience is generic.

Automated responses are often developed to replicate the call routing in the absence of behavioral context. In this day and age, customers expect more. Their experience outside of insurance has taught them that information and help can be context-specific – or, in their words, relevant. Fortunately, by applying analytics that assess both the characteristics and behaviors of their customers, insurers have powerful tools to meet higher customer expectations.

## Robotic process automation:

Technology where software or a “robot” is programmed to capture and interpret data for further utilization.

## Smart automation:

Automation that uses machine learning to continuously optimize processes and decisions.

## Automation shaping the insurance proposition

The convergence of technological innovations creates opportunities for insurers to tailor customer experiences in ways that would not have been possible even a few years ago. One can only imagine the potential that will be realized as technology continues to advance.

Insurers are increasingly using robotic process automation (RPA) to increase efficiency and consistency in core insurance processes. Adding analytics that enable the automated process to respond to customer behavior presents an opportunity to develop smart automation.

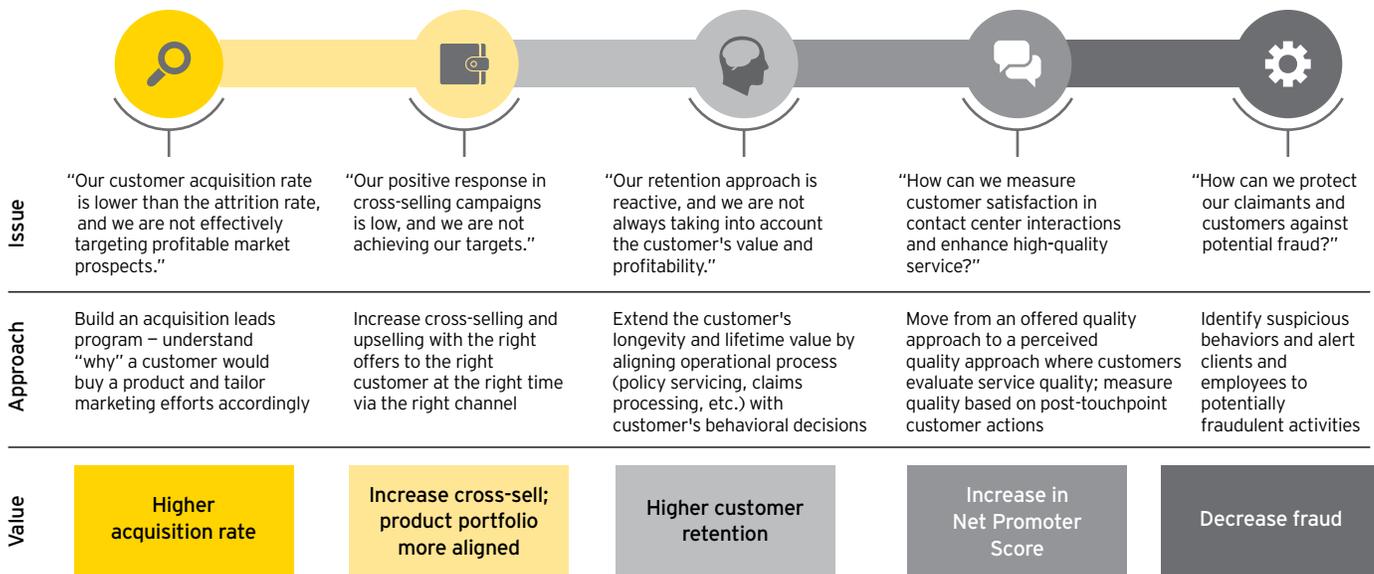
Combining smart automation with advances in sensor technologies, including telematics and wearables, means that insurers can now analyze and respond to consumer behavior both in the virtual and physical world. The key is understanding the characteristics and behaviors of the customer.

## Behavioral analytics as a critical enabler

Behavioral analytics creates a unique value proposition for both insurance companies and their customers. The benefits can range from higher acquisition rates and customer retention to more aligned product portfolios and a reduction in fraudulent activities, as shown in the chart below.

Moreover, behavioral analysis helps explain the “why,” “who” and “what.” Insurers increasingly understand “who” their customers are based on the characteristics. Age, sex, income and residence are all attributes that insurers capture. They also are able to track the interactions they have had with customers; for example, a customer bought a policy, contacted the call center and paid the bill on time. All of this information provides valuable insights.

## Behavioral analytics creates a unique value proposition for both companies and their clients



The next frontier, focusing on behavioral analytics, allows insurers to address “why” customers react as they do.



Did a 34-year-old married customer decide to buy a life insurance policy because she was ...

- A** Starting a family?
- B** Concerned about a health scare?



Did a 55-year-old customer let his whole life policy lapse ...

- A** Because his assets had accumulated to the point that he no longer needed life insurance?
- B** Because he anticipated that a pending job loss would make current premiums unaffordable?



Did a couple update the garaging location of their vehicle as they applied for insurance ...

- A** Because they were moving?
- B** Because the premium was too high?

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**Knowing “why” the customers behaved in a particular way points to a different action by the insurer.**

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In each of these examples, knowing “why” the customer behaved in a particular way points to a different action by the insurer. Behavioral analytics helps insurers understand “why,” and using those insights to tailor the customer experience through automation will create value for both the insurer and the insured.

Consider the example above and the 55-year-old customer who called to cancel his whole life insurance policy. If the insurer knew the customer had initiated cancellation because he was secure in his financial position, one might discuss the tax advantages of the policy or potentially an alternative such as a deferred annuity. However, if the customer was contacting their insurer because of concerns about pending job loss, one might offer a lower premium term life product or explain the loan provisions of whole life insurance.

**Innovation is emerging from other industries**

Behavioral analytics were pioneered outside the insurance arena. Amazon’s vaunted recommendation engine is an example of a situation where understanding client behaviors enables a company to provide the right offers to the right customers at the right time and through the right channel – all through automation.

Building on these innovations, financial services firms use behavioral analytics to identify suspicious activities by analyzing the behavioral patterns of their customers to flag atypical actions and automatically notify their customers. Cybersecurity firms increasingly analyze behaviors to isolate specific threats and implement automatic countermeasures.

# Going forward

The emerging applications in insurance will be just as powerful. For example:



Chat bots, informed by financial wellness algorithms, will consider not only the characteristics of potential customers, but also their unique combinations of financial behaviors to automatically recommend products that are individually relevant.



Online activity will result in a proactive contact from the insurer before the customer contacts the call center, when the behavior indicates that an issue is unresolved.



Agent-based cognitive simulation models will anticipate how customers are likely to respond to new situations and send signals that modify behavior to prevent a potential accident.



Service center contacts will result in direct connection to the person or bot that can help because of insights gained by observing interactions online that occurred prior to the call.



Mobile claims apps will access vehicle telematics to pre-populate information about the accident that just occurred.

All of these use cases point to an improved customer value proposition that results from the combination of behavioral analytics and automation.

## What will it take to capture this opportunity?

Data will be foundational. That data needs to be integrated across different customer interaction points. Information will be stored as structured data in relational and transactional databases.

In parallel, as the volume, variety and velocity of traditional data increases, new data sources will continue to emerge. Data increasingly will include unstructured data such as multimedia data or call center recordings. Insurers will need to ingest and curate information in various forms from sensors, online activity outside of the insurance context and various other collateral sources. The big data toolkit will need to expand to include Hadoop and NoSQL tools. And finally, there will be a need for increasingly sophisticated techniques, including machine learning

algorithms, artificial intelligence (AI), agent based simulations and cognitive computing.

The question for most insurers is not if, but when and how behavioral analytics will be deployed in their own organizations. While many of the opportunities highlighted above may seem far in the future, we would caution that in most if not all of the areas above, work is happening now. InsurTech start-ups are seeking to disrupt the current insurance business model. Insurance companies are combining internally generated innovative ideas with the wider technology infrastructure. First movers may not succeed immediately, but they will learn valuable lessons and develop relationships in the wider data and analytics ecosystem that will generate long-term value.

Our view is that behavioral analytics in combination with automation will create a compelling value proposition. Insurers

would be well advised to invest in understanding and piloting now. Customers are increasingly benefiting from the consistency and efficiency of automation. That automation often is not yet smart enough, as anyone who has struggled with an automated response system will attest. Yet, the technology and expertise has reached a state of maturity where the future is possible now – and customers expect nothing less than the most tailored experience that can be delivered. Focusing on areas where context-sensitive, targeted, quick-service differentiators will point insurers to high-value use cases like cross-sell, upsell and digital self-service applications. Capturing those opportunities will generate immediate value and position insurers to deploy the technology more widely.

EY is ready, willing and able to assist



### **Opportunity assessment**

We can work with clients to identify, prioritize and evaluate the potential cost and benefit of behavioral analytics opportunities – and objectively identify tools and techniques appropriate for particular use cases.

### **Proof of value**

EY can help clients transition from an idea to a proof of concept and ultimately a proof of value. We identify key value drivers, define success metrics and measure against those metrics to assess value in advance of full-scale rollout.

### **Industrialize**

We can work hand in hand with our clients to support wide-scale implementation of behavioral analytics ultimately transferring skills and technology that align with business objectives.

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# Contacts

**David Bassi**

+1 617 565 0141  
[david.bassi@ey.com](mailto:david.bassi@ey.com)

**Franck Chevalier**

+33 1 46 93 70 76  
[frank.chevalier@fr.ey.com](mailto:frank.chevalier@fr.ey.com)

**Kevin Koenig**

+1 212 773 2769  
[kevin.koenig@ey.com](mailto:kevin.koenig@ey.com)

**Woh Choo**

+61 2 9248 4151  
[woh.choo@au.ey.com](mailto:woh.choo@au.ey.com)

**Abhinav Goel**

+1 212 773 3744  
[abhinav.goel@ey.com](mailto:abhinav.goel@ey.com)

