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Insurance Practice

Industrializing data and analytics among Asian insurers

To realize the full potential of data and analytics for a changing world, Asian insurers must go beyond discrete use cases, adjusting governance and management and building new technical capabilities.

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In recent years, Asian insurers have increasingly turned to data and analytics tools to drive growth and improve operational efficiency. Many have already invested in starting up analytics teams or setting up insurtech partnerships to launch pilots. To date, some of the most popular use cases revolve around increasing new business by suggesting the next product to buy, improving claim-fraud detection, and increasing the straight-through processing rate of new life insurance policies (exhibit).

In the wake of the COVID-19 pandemic, insurers' interest in data and analytics has only intensified, and several insurers are looking at fast-tracking the build-out of these capabilities. These insurers know that customers expect personalized, convenient service from their service providers—including their insurance carriers. Omnichannel engagement, online self-service, personalized offers, instant pricing, and seamless claims adjudications are increasingly becoming requirements. Insurers must first focus on how data and analytics can help solve some of their immediate challenges amid COVID-19 so they can turn to capturing new opportunities in a world that is more connected and digitized.

During COVID-19: Personalize response to immediate needs

Although the full impact of the crisis continues to unfold in many parts of Asia, the pandemic has already led to a broad economic slowdown. As a result, an increase in late premium payments and policy surrenders has pushed many insurers to rush into quick fixes, such as offering refunds on a portion of premiums for all customers. While such broad actions may boost customer retention, a more targeted approach could use analytics to prioritize such offers for customers most in need and proactively reach out. This could be more cost effective and strengthen the insurer's long-term relationships with those customers. Companies with this capability can also determine the size of

the premium relief based on the predicted customer lifetime value.

The sudden and visible increase in health and mortality risks has also created an urgent customer desire for relevant insurance coverage. To satisfy this demand, Thai insurers Dhipaya Insurance and Muangthai Insurance have launched COVID-19 microinsurance products; Dhipaya claimed it sold half a million such policies in the first quarter of 2020.[1] Insurers with established analytics capabilities could gather customer-reaction data during the first month of a new product launch and use it to refresh their campaign analytics model to support more-targeted digital marketing and outbound-call campaigns.

China has also experienced a dramatic increase in health insurance–related activities as a result of COVID-19. Ping An Good Doctor, the world's leading healthcare ecosystem platform (with 315 million users at the end of 2019), saw 1.11 billion visits between late January and early February 2020.[2] The platform also accumulated ten times the normal number of new registered users and nine times the normal daily consultations by new registrants in that time.[3] Following this surge in interest, Ping An launched a global telehealth platform in April 2020, providing 24/7 online consultation services.

From a technical perspective, insurers that have already deployed data and analytics use cases have observed that some of their analytical models have become less accurate as a result of COVID-19 because changes in underlying customer behaviors have occurred at a much faster pace. For example, segments that were previously deemed safe started to see increasing loss ratios. To address these effects, insurers have focused on increasing their agility to react quickly: if it took months to launch a new analytical model in the past, it might now take less than a week.

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[1] Apornrath Phoonphongphiphat, "Insurance sales surge in Thailand as epidemic spreads," March 26, 2020, asia.nikkei.com.
[2] "Ping An Good Doctor launches global medical consultation platform in 24/7 support of anti-COVID-19 efforts," Ping An Healthcare and Technology Company Limited, April 8, 2020, pingan.cn.
[3] "The rise of telemedicine: Embracing a new normalcy," Mirae Asset Global Investments (Hong Kong), June 2, 2020, am.miraeasset.com.hk.

Exhibit

There are a variety of use cases for advanced analytics in the insurance industry.

Impact size: ● High ◐ Medium ○ Low
Adoption: ✓ Widespread ✓ Selective

Value lever	Feasi-bility	Impact	Products			Channels			
			Life	Health	Property & casualty	Agents & brokers	Digital	Banc-assurance	B2B
Distribution, sales, and marketing									
Distribution productivity management	Easy	●	✓	✓	✓	✓		✓	
Lead management and workflow optimization	Med	◐	✓	✓	✓	✓			
Cross-selling: Next product to buy	Med	◐	✓	✓	✓	✓	✓	✓	✓
Value-based prospecting	Easy	○	✓	✓	✓	✓	✓	✓	
Preferred prospect modeling	Easy	●			✓	✓		✓	✓
Retention management	Easy	●	✓	✓	✓	✓	✓	✓	✓
Underwriting and pricing									
Underwriting automation	Easy	◐	✓	✓	✓	✓			
Technical pricing, new business	Easy	●	✓		✓	✓	✓	✓	✓
Technical pricing, renewals	Easy	○	✓		✓	✓	✓	✓	✓
Fraud prediction in underwriting	Med	●	✓	✓	✓	✓	✓	✓	✓
Lifetime-based pricing	Med	●	✓		✓	✓		✓	
Behavioral pricing, new business	Med	◐	✓		✓	✓	✓	✓	
Behavioral pricing, renewals	Med	○	✓	✓	✓	✓	✓	✓	
Claims management									
Claim prevention using telematics	Hard	◐		✓	✓	✓	✓	✓	✓
Enhanced negotiation with providers	Hard	◐		✓	✓	✓	✓	✓	✓
Enhanced fraud prediction	Med	◐		✓	✓	✓	✓	✓	✓
Segmentation and STP[1] modeling	Easy	◐		✓	✓	✓	✓	✓	✓

[1]Straight-through processing.
Source: McKinsey analysis

After COVID-19: Capture the spiking insurance demand

Insurers also need to plan beyond immediate needs. In China, demand for term life and health insurance showed a significant increase after the SARS outbreak in 2002.[4] COVID-19 will likely create a similar uptake from consumers across Asia. Of course, the world now is much more digitized—and widespread physical-distancing and lockdown measures have pushed Asian insurers to accelerate their digital-transformation efforts. For example, AXA recently launched a digital enrollment system for tax-deductible products in Hong Kong and further digitized its claims and customer-service operations in mainland China.[5]

Data and analytics capabilities can underpin a wide variety of initiatives to provide the personalized and convenient experience that will define insurers' competitive advantage in the years to come. Insurers are increasingly adopting these capabilities as the insurance distribution model is fundamentally changing and migrating to digital channels faster—not just toward self-service but also toward remote, proactive outreach through phone, social media, and professional and other channels.

[4] "Covid-19 pandemic to lead to greater demand for insurance," *Hindu BusinessLine*, April 2, 2020, thehindubusinessline.com.
[5] Gabriel Olano, "AXA Asia's Gordon Watson on how the insurer deals with COVID-19," *Insurance Business*, March 14, 2020, insurancebusinessmag.com.

Personalization

Data and analytics can enable insurers to offer the personalized services customers have come to expect.

Microsegment marketing. Create microsegments based on customer and A/B-experiment data and couple segmentation with a data management platform to personalize offers across channels.

Timely human assistance. Identify customers struggling in real time and provide agent assistance—over chatbots, social media chat tools, outbound calls, or in person—to improve customer engagement and minimize potential drop-off from key journeys, such as purchase or increase in coverage.

Agent recommender. Recommend agents to new customer leads based on profiles, product expertise, customer lead-behavior, availability, and so forth to maximize the conversion rate.

Convenience

Convenience can also be facilitated by data and analytics.

Omnichannel integration. Capture customer preferences and inputs in real time and feed this information to all available channels to create a seamless experience.

Streamlined and automated underwriting. Remove questions with little impact on the underwriting decision and, where possible, automate those decisions to enable instant policy approvals.

From single use cases to industrialization

Typically, data and analytics use cases are developed from the bottom up to address specific points of the customer journey, such as underwriting or cross-selling. A more top-down approach requires more than shiny algorithms and a team of data

scientists. An industrialized process involves going beyond discrete use cases and scaling technology capabilities, such as data extraction and performance monitoring, to reduce set-up overhead. It also requires business alignment on areas such as leadership, team buy-in, and resource commitment to support rapid development and facilitate an end-to-end strategy for data and analytics.

Governance and management

To achieve full industrialization of data and analytics use cases, insurers should consider the following priorities for governance and management.

Mechanisms for impact assessment and prioritization. The finance function should develop an impact-estimation methodology to assess all data and analytics projects on key business metrics. Informed by this assessment tool, a governance structure with participation from both business and technology units can prioritize initiatives, form a delivery road map, and respond to abrupt changes such as those caused by COVID-19.

Business-led agile delivery. Industrialized use-case delivery is predicated on agile, cross-functional teams and business ownership. Such ownership means there is a sponsor accountable for delivery outcome and for guiding teams in execution while ensuring employees strengthen their data and analytics capabilities to meet new key performance indicators. Ownership is critical to ensure business relevance of any new data and analytics enhancement, while agile teams are crucial for rapid iteration between business and technology functions and frequent feature releases (that is, faster time to market).

Organization-level buy-in and a culture of adoption. The whole organization, from senior management to frontline staff, should receive training about the value of data and analytics to minimize resistance to using them. Internal communication and training should encourage a controlled adopt-and-learn

approach and evidence-based evaluation. Closing the data and analytics talent gap may be harder as the demand for technology talent is not easing and internal reskilling is becoming increasingly important—indicating a need for establishing a digital and analytics academy.

Partnerships and ecosystems. Insurers should double down on alternative acquisition channels and partnerships, such as ecommerce partners, affinity players, utilities, telcos, and banks. Insurers can position themselves as partners that help prevent losses and support customers through challenging times by developing new analytical models that identify the best prospects in terms of risk, value, and customer needs. Through close partnerships, insurers will generate new insights on customer behavior and opportunities with newly expanded and available data sources.

Technical capabilities

In addition to governance, insurers should consider advancing technical capabilities in a few specific areas.

Live model performance monitoring. To identify new trends and opportunities in a rapidly changing operating environment, data engineers, data scientists, and machine-learning engineers need to build performance monitoring into production data and analytics models to ensure no major deviation from assumptions at development. The monitoring should consider both inputs and outputs. For example, input tracking for an automated underwriting model would include tracking the share of policy applicants by key demographic segments, sources of applications, and so forth. Output tracking would include tracking the rate of automated policy approvals in key segments. Major changes in the input or output pattern may mean the model requires an update.

Modular and scalable data pipelines. Data engineers should follow standardized guidelines on how to develop data pipelines to ensure regular, low-latency data extraction and reusability in multiple use cases, including built-in flexibility to scale up processing. For instance, an insurer with a regularly refreshed pipeline to extract the raw digital-footprint data for a product recommender would save time when it needs to develop other use cases, like customer purchase intent detection or an omnichannel engine, three to six months later.

Scalable architecture. The data-architecture team should equip the analytics-delivery team with easily scalable development and production environments to enable development, testing, and deployment of new data and analytics models with minimal time-consuming IT enhancement. For example, some insurers are deploying data and analytics directly on next-generation cloud infrastructures. These environments allow greater flexibility to quickly scale up analytics use cases and ramp down computing capacity as required.

Even for insurers that have experienced major successes in deploying discrete data and analytics use cases, developing more comprehensive, top-down capabilities and scaling to the rest of the organization will not be easy. Industrialized delivery takes time to organize up front. However, it can result in seamless, integrated releases and competitive differentiation in the months and years to come.

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