Redefining Insurance Business Models Through Advanced Analytics and Data Monetization

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Executive Summary

Experiences with digital natives have changed the customer and partner (intermediaries) expectations in doing business with insurance companies. These customers and partners expect simple and personalized products and services that suit their unique needs and situations. They also expect contextual and meaningful interactions across the policy lifecycle through their choice of channels. Additionally, the business is characterized by minimum number of touch points with the customer in the form of policy sales, claims, or renewals and most of the business functions rely on the data from these touch points.

Insurers understand the need to transform to stay relevant in a changing marketplace but they face many challenges like inflexible legacy systems, regulatory pressures and lack of innovation culture.
Executive Summary, cont.

On the positive side, insurers now have the opportunity to leverage data from external sources be it unstructured social media data, data from sensors/wearables or public data sources. This external data combined with internal structured or unstructured data can help them build a holistic picture of the customers and their preferences.

Digital technologies like advanced analytics, artificial intelligence (AI) and machine learning can be powerful accelerators for insurers who want to undertake a transformation journey to monetize data to improve customer engagement, innovate new products and mitigate risks in a digital age.

IDC believes that “digital” means data and drawing value from data using analytics for transforming business models. Those insurers who make the most of digital by applying the right technologies will be best placed to respond to market challenges in the coming years.
Combining internal and external data effectively, and applying analytics can positively impact customer and partner engagement, product innovation, and risk mitigation in insurance.

### Customer & Partner Engagement
- Customer and partner (intermediaries) engagement across the policy life cycle beyond traditional touch points
- Advice and support to manage risks at the right time and place, with real-time insights
- Virtual and augmented connect with one another
- Contextual and targeted marketing without being intrusive
- Secure, intuitive and seamless policy and claims handling

### Product Innovation
- Simple, personalized and transparent products based on changing requirements
- Quick, agile delivery of products
- Usage Based Insurance (UBI) for the connected ecosystems (cars, homes, businesses)
- Insurance for the sharing economy (ride sharing, home sharing)
- Cyber Insurance (Underwriting cyber risks using external data and historical data)

### Risk Mitigation
- Evidence based proactive risk management in Automobile, Home, Health and Life Insurance enabled by sensor based technologies
- Cyber risk management (internal and insured)
- Data enabled fraud management in a connected world
- Improved and accurate risk assessment and pricing with the help of real-world data
- More comprehensive and accurate management and regulatory reporting with access to up to date, diverse data sets
Digital technologies can be powerful accelerators for insurance companies that want to monetize data to transform business models.

Due to the nature of the business, insurers have the advantage of holding a great amount of data about their customers. They now have access to many external data sources, for example: social media, public or industry data, databases on property conditions, weather, etc.

What they need to do now is leverage the right technologies to help them build a more complete picture of their customers, their preferences and risk exposures to address their unique requirements and better manage their risks.

This will help them position products and services that are contextual and relevant and engage in meaningful interactions with their customers across the policy lifecycle, based on real-time insights.
Adoption trends indicate that many insurers are looking at Big Data and Analytics to help drive insights throughout the business units, use data as an asset, and leverage information for competitive advantage.

However, they need to understand that large volumes of stand-alone data may not help them achieve their objectives. They should direct their efforts to combine both structured and unstructured data and invest in Analytics and Cognitive technologies to turn the large volumes of data into insights and insights into action.

At what stage is your organization today in the deployment of each of the following digital initiatives?

Does your organization use Big Data and analytics solutions?

Source: IDC’s 2016 Vertical IT and Communications Survey, May, 2016 (n = 156 insurance companies)

Source: IDC European Vertical Markets Survey, 2016, November 2016 (n = 87 insurers)
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More relevant and meaningful customer engagement and risk mitigation are the most common reasons for big data & analytics adoption.

To realize the true value and benefits from these use cases, insurers need to move away from the siloed approach that exists within different business departments that results in additional and disparate data sources. They should plan and deploy a long term enterprise wide strategy that emphasizes a strong data foundation, smart analytics, cognitive technologies and more importantly, a strong commitment from senior management.

Source: IDC’s 2016 Vertical IT and Communications Survey, May, 2016 (n = 156 insurance companies)
Source: IDC European Vertical Markets Survey, 2016, November 2016 (n = 87 insurers)
Use case #1: Employing advanced analytics and machine learning to enable contextual and meaningful interactions across the customer journey

The insurance business has been characterized by minimal touch points in the form of policy sales, renewals and claims through traditional channels like face-to-face, intermediaries or contact centres.

Traditional ways of doing business do not always help to understand the unique needs and preferences of customers as the data collection is mostly oriented to identify the right risk class, price policies accordingly or settle claims.

Today, insurers can engage with their customers through multiple digital channels like online, mobile, social websites like LinkedIn, Twitter or Facebook and virtual digital assistants.

They can also access demographic, credit or other data from public data sources. They can understand their customers’ lifestyles, behaviors and preferences using data from location based sensors or social media interactions.

When advanced analytics are applied on a combination of structured and unstructured data from different sources, they help build a holistic picture of the customer and enables insurers to engage with them at the right time and place when they most need the services of the company. A great way to build trust, long lasting relationships and brand loyalty.

Machine learning can be used to analyse these interactions and help to continuously improve products, services and communication in a proactive fashion with higher predictive accuracy.
U.S.-based insurer MassMutual employs mining of structured data and unstructured social media data to identify relevant customer segments to position specific products and services. The company uses its analytic capabilities to support internal ventures like online term life insurance platform HavenLife.

Grange Insurance, Nationwide and Safeco have partnered with Amazon on its cloud-based virtual assistant device. The device can help customers find local independent agents, hear insurance tips or advice and conduct research on the insurance carrier’s home, automobile, business or life insurance products.
Use case #2: Using advanced analytics and cognitive technologies to maximize the value of connected car offerings

Advanced analytics and cognitive technologies for connected cars relies on real-world data like individual and current driving behavior rather than actuarial studies of aggregated historical data to determine premium pricing.

It holds the potential to greatly improve customer experience through more accurate pricing, based on individual risks and enable better loss prevention. It also reduces fraudulent claims with real-time monitoring and tracking.

According to IDC’s 2016 Vertical IT and Communications Survey (156 insurers in the United States) and 2016 European Vertical Market Survey (87 insurers), IoT adoption levels in insurance companies are very positive and encouraging.

However, the real value of IoT investments will be realized only if insurers adopt an integrated strategy that covers product and risk management enabled by analytics and cognitive technologies, and further use cases.

Such a strategy will enable them to effectively reach out to a customer base that expects highly personalized products and services as well as value across the policy life cycle in exchange for the data that they provide their insurance carriers.

Insurers should choose technology partners that can offer solutions to effectively merge data analytics with the policy holder’s risk exposures and extend offerings to include business functions like claims, marketing, customer service.

As part of their offerings, insurers should collaborate with players in the wider ecosystem like car manufacturers, repair shops, entertainment providers, and hospitals to maximize customer experience using the insights drawn through information sharing where relevant.
UK insurer LV= Broker has signed an agreement with a telematics player to adopt its data analytics and telematics services that will enable them to price risk, enhance claims management and reward consumers.

The Generali Group in Italy has a million vehicles with telematic devices installed. The data can be used to detect a crash and reach out to the customer and offer assistance, whether it’s emergency or roadside. The data is also used in speedy resolution of the claim by helping find a repair facility.
Use case #3: Utilizing advanced analytics and artificial intelligence to better manage claims and effectively handle fraud in the digital world

In the past, insurers have relied heavily on historical data to model the frequency and severity of claims. They have used pre-built business rules and workflow to detect fraudulent activities.

With access to a trove of data from both internal and external data sources, insurers can now employ advanced analytics solutions and robo-claims handlers. This will study the structured and unstructured information to build predictive models for expense management, claims settlement, litigations and loss analysis. It also uses complex algorithms more effectively and accurately than ever before.

Telematics technologies can help detect suspicious activity due to the real-time monitoring. Analysing social media activities can detect fraudulent behaviour patterns and trends at an early stage. AI systems can analyse accident details based on video images, audio recordings or accident reports.

With advanced analytics and cognitive technologies, it is possible to detect correlations and identify links and suspicious patterns as these technologies are able to handle large volumes of data in a shorter period of time.

These technologies can help speed up claims processing and cut down the loss costs through the analysis of massive volumes of data quickly, accurately and effectively and also by converting the data insights into action to combat claims leakage and fraud.
U.S.-based insurance start-up Lemonade is working with academia to build algorithms to expedite the claims settlement process. They employ software that can screen applicants and handle claims quickly by collating data about a home and its neighborhood from different external data sources. This reduces the need to ask too many questions to the customers during the first notice of loss.

Lemonade has employed chatbots to handle claims cases that do not require human intervention and constantly learn from customer interactions to improve service in future.
Insurers need to undertake an Information Transformation to realize data monetization and redefine business models – a journey starting from the simplest ad-hoc stage to the advanced, optimized stage.

**Digital Reactor**
Work with IT to develop standard processes to extract key performance indicators and business informatics in the form of analytics and dashboards.

**Digital Explorer**
Develop an information architecture that includes internal and external data sources to enable instantaneous data analysis and market intelligence.

**Digital Player**
Integrate internal and external data and processes such as social “listening” using web, mobile, and analytics sources to drive new revenue streams based on rapid-return information.

**Digital Transformer**
Capture real-time prediction analytics to monetize data from and about products, customers, and markets. Prepare real-time decision capabilities to gain competitive advantage.

**Digital Disruptor**
Develop data algorithms to capture and valuate information as a key driver for new DX products and services and new non-traditional business models.

Source: IDC MaturityScape: Digital Transformation in Insurance, June 2016
Essential Guidance for Insurers

- **Assess** the current information capabilities and stage of maturity of the organization, understand the challenges and opportunities, identify areas of improvements, and create the roadmap and framework to enable the information transformation.

- **Plan** for small, meaningful pilot projects in the roadmap before investing in large ventures.

- **Build** an enterprise wide strategy underpinned by a robust data foundation, smart data management and analytics and cognitive technologies. These are necessary to improve customer engagement, deliver innovative products and services, and help manage risks proactively.

- **Define** the use cases that align well with the organization’s mission and strategy and prioritize them based on short-, medium- and long-term objectives.

- **Nurture** a customer- and data-centric culture across the enterprise, and build a leadership that believes and supports this.

- **Optimize** your data and analytics investments by measuring, documenting and managing the value, risk and cost associated.

- **Partner** with technology suppliers that are innovative with a true understanding of the industry and its current data transformation needs, and has proven analytics and integration capabilities to support your transformation journey.

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