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# Drivers for the Digitalization of Insurance

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The insurance industry is becoming increasingly focused on the digitalization of its business processes. There are many factors driving digitalization, but a reliable and meaningful data architecture is the basic prerequisite to a successful digitalization strategy.

Digitalization is not just the “buzzword of the day.” A number of trends and changes in the insurance business environment are forcing companies to prioritize investment in digitalization.

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## KNOWLEDGE ABOUT CUSTOMER BEHAVIOR IS BECOMING MORE IMPORTANT THAN EVER

Many insurance companies have already invested in IT solutions for customer intelligence and customer analytics in recent years. In the future, the identification of current customer needs will be essential for a successful sales strategy and creating long-term customer loyalty. How has the customer (possibly including his peer group) behaved in the past? What were the motives? How will the customer behave in the future?

Today, a 360-degree customer profile includes all available customer information: data from party, core, debt collection and claims management systems and business analytics data warehouses as well as available external information (social media, Google maps, blogs and more).

## NEW DISTRIBUTION CHANNELS ARE REPLACING TRADITIONAL ONES

Customers expect their insurance companies to be accessible at all times (online, call centers, local personnel). Thus, online sales and traditional distribution channels (agency, broker,

sales department) needs to be seamless; but omnichannel management creates difficult challenges for insurance IT.

## CHANGING CONDITIONS OF COMPETITION

New digital business models (InsurTechs) are pushing into the insurance market with innovative offers:

- Online broker and comparison portals are gaining market shares in new business.
- Peer-to-peer (P2P) insurers are trying to replace traditional insurance models. For example, Friendsurance is taking a social community approach.

## COST AND CUSTOMER REQUIREMENTS ARE DRIVING PRODUCT INNOVATION

Falling interest rates and changing customer demands require the development of new and innovative insurance products:

- Customizable insurance policies, e.g., a life insurance policy with flexible investment options for the portion of the premium that goes into savings.
- Linking the internet of things (IoT) and insurance products will grow and is already prevalent today in auto, home, life and health insurance.

## COST OPTIMIZATION IS REQUIRED TO REDUCE LOSS RATIOS AND ADMINISTRATIVE COSTS

Altered basic conditions (e.g., increasing damage rates, declining interest rates) are forcing cost reduction:

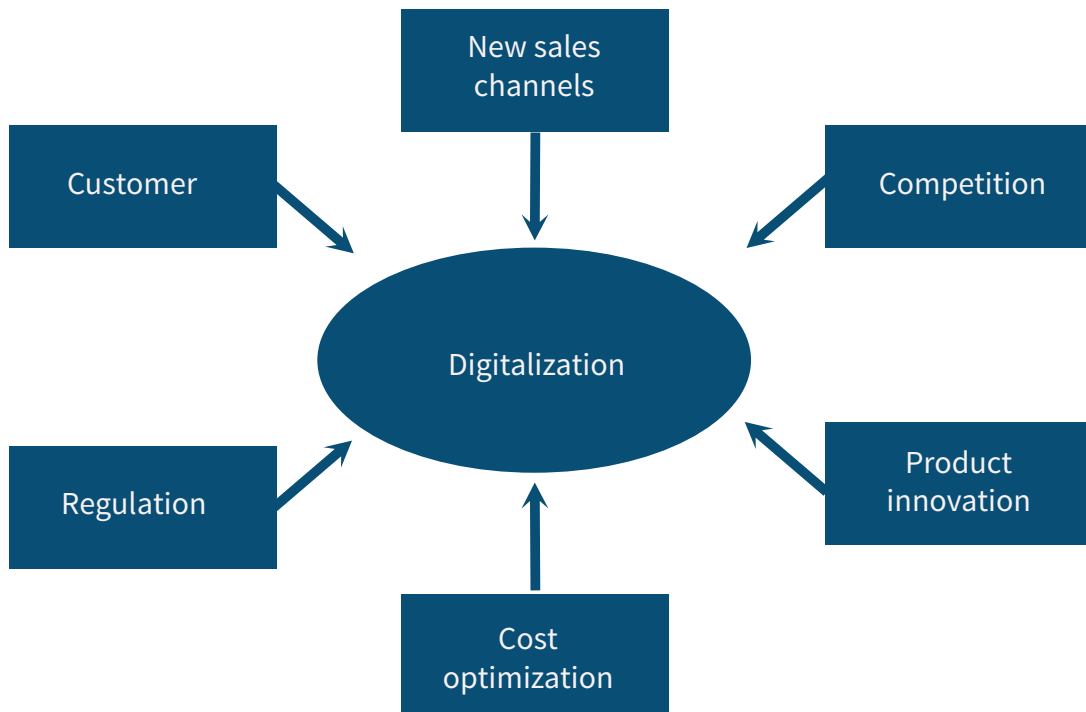
- Claims predictions using predictive modeling for property insurance, ideally in combination with IoT solutions for claim avoidance.
- Improved fraud detection for all lines of business using analytics tools and methods.
- Optimization of management functions by automating business processes (for example, in application examination).

## COMPLIANCE REQUIREMENTS DEMAND A FUNDAMENTAL MODERNIZATION OF INSURANCE IT PROCESSES

Regulatory and legal requirements are defining new standards for the IT systems of an insurance company:

- Solvency II includes stricter requirements for transparency of IT processes.
- The introduction of the EU General Data Protection Regulation requires fundamental adjustments to data management processes related to personal data.

Figure 1



All of the digitalization drivers described above represent substantial data management challenges for IT departments throughout the insurance industry. So what's an insurer to do to stay competitive?

### 1. IMPLEMENT 360-DEGREE CUSTOMER AND PARTY PROFILES

Most insurance companies have implemented “party systems,” which uniquely identify a business party, regardless of the role he or she plays in the insurance business process (for example, customer/policyholder, contributor, intermediary/producer, external service provider).

In practice, however, many companies still have duplicate and incorrect information on parties due to data quality problems. Therefore, data cleansing is a must.

A further challenge is using not just internally stored customer information, but also to evaluate externally available data, and storing the insights from it in suitable structures. This includes geo-information (for example from Google Maps), as well as information from social networks and blogs. Since this information is generally not well-structured, new data management concepts are required (for example, based on Hadoop), as well as access mechanisms that must be incorporated into ETL processes and analytical evaluations.

### 2. EMPLOY OMNICHANNEL MANAGEMENT

Until now, it was tolerated that internal departments, brokers and agencies had different databases available for their sales activities. Now insurers are realizing that these data silos are killing an omnichannel strategy.

New concepts such as a customer decision hub, which provides all channels with complete customer history in a consolidated, quality-assured version, will be the norm. The customer decision hub may be linked to a business-analytics data warehouse thus giving a 360-degree view of all party information.

### 3. LEARN FROM NEW COMPETITORS

New competitors are not only a threat to traditional insurers, but also an opportunity.

- P2P products will likely secure larger risks through cooperation partners (i.e., insurance companies).
- Online comparison portals prefer high-value products, which can also be offered by established insurers.

In both cases, it's a great advantage for insurance companies if they're able to exchange data with insurtechs' IT systems via standard interfaces. Insurance companies that have already cooperated with insurance brokers will have an advantage over



companies with exclusive distribution channels. Furthermore, companies that have already implemented standard structures like ACORD in their data systems will be leaders.

#### 4. KEEP INTRODUCING PRODUCT INNOVATIONS

Customizable insurance products, which in some cases also require a link to raw data and/or scoring results from IoT applications, will require extended and comprehensive access to policy and risk information. This relates to core and rate-making systems, as well as to already existing dispositive systems.

Without extensive modernization of the data systems in question, insurance companies will find it very difficult to introduce product innovations successfully.

#### 5. OPTIMIZE COSTS THROUGH CLAIM PREDICTION AND IMPROVED FRAUD DETECTION

IT optimization in the context of claims leads to the topic of data:

- Claims prediction using analytical models is only as good as the underlying database. If the data of historical claims

cannot be evaluated correctly, the analytical models will not yield accurate scoring values. Data quality is an important prerequisite.

- Fraud detection by analytical methods requires the unmistakable identification of all involved persons as well as all claims objects over a claim's history. This requires a solid data management strategy.

#### 6. MODERNIZE IT TO COMPLY WITH NEW REGULATIONS

The increasing regulatory and legal requirements for insurance compels companies to fundamentally renew their data processes. As a rule, the requirements cannot be served by a simple expansion or adaptation of software programs and IT infrastructures, especially ones that are piecemeal and outdated. A fundamental modernization of data management concepts is required:

- Solvency II requires that the underlying rules and all source information (data fields and source systems) be extensively documented. The resulting efforts to change and extend proprietary developments is immense and requirements are generally not met by existing IT solutions. Therefore, new data management solutions are necessary—optimally automated and supported by a metadata solution and a business glossary.
- With EU General Data Protection Regulation, insurance companies must ensure that personal data in the information systems is no longer displayed to all users. The necessary anonymization or pseudonymization requires either complex adaptations in existing ETL programs or the use of data management solutions designed for this purpose. In many cases, it is a challenge to recognize where all personal data is stored in the branched data landscape of an insurance company. Again, an intelligent data management solution may help.

#### SUMMARY

It becomes clear that the requirements for data management processes, including the underlying data structures, are in increasing demand to implement a digitalization strategy. This is why it is becoming crucial for insurance companies to implement new, powerful and flexible data management concepts. ■



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