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Towards Data-Driven Insurance: **Leverage Advance Analytics to Propel your Business**

White Paper

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New Frontiers
in Insurance Data Analytics

When it comes to utilizing data, insurance companies have a definitive advantage over other sectors. By virtue of the nature of their business, insurance firms collect and amass huge volumes of data, be it structured, semi-structured, or unstructured. Data is at the heart of most insurance practices, traditionally used in underwriting, market risk assessment, and calculating loss ratios.

To fully exploit the potential of information, however, insurers need a robust analytics portfolio. Interest and investment in this area is growing at a rapid pace, with the global insurance analytics market expected to reach almost $12 billion by 2023. This suggests a CAGR of 12.5% between 2018 and 2023, mostly driven by advancements in technology such as increased computing power, AI/ML, big data processing, and access to predictive algorithms. This has allowed insurers to build more sophisticated analytics models, leveraging them to personalize marketing, enhance risk assessment in underwriting, and reduce the cost of claims.

But despite this rise of cutting-edge technologies, insurers aren't always achieving the expected return on investments (ROI) from their data analytics solutions. According to research, global life and P&C carriers were investing as much as $80 million every year in data analytics. And at least half of CEOs in this sector consider data analytics to be among their top five priorities. However, only one in six respondents said that analytics was delivering the impact that they had expected. This could have several reasons. For starters, 20% of firms are struggling with poor data quality, fragmentation, and inadequate access. A significant 40% also said that adoption by frontline employees was poor, limiting the benefits to a select few stakeholders.

Clearly, insurance enterprises must rethink their strategy when adopting data analytics. The same research also suggested that analytics could actually have a 250% annual ROI in steady-state, by intelligently outlining the adoption roadmap. So, how can insurers bridge this gap between potential and actual outcomes? Is it possible to convert the existing repositories of data into actionable, monetizable insights?

At Zensar, we believe that the answer is a resounding YES. By combining traditional and non-traditional data sources with cognitive technologies such as AI, ML, and NLP, insurers can democratize data and reduce the time between insight and action. This will help percolate the benefits of analytics across the entire insuranceorganization, driving ROI at every touchpoint. In this paper, we examine the opportunities for insurers and the challenges in leveraging AI/ML/NLP-driven advanced analytics. We then explore how data analytics can help insurers achieve higher ROI across the insurance value chain.

Getting ROI from Analytics: Opportunities and Challenges

In this digital era, insurance solutions are becoming more and more customer driven. Customers expect their service providers to be informed, be available around-the-clock, and add value. Companies that offer policies that aren't competitive or are easy to replicate will face very low switching costs, leading to a risk of customer attrition. That's why it is so important for insurers to innovate fast and consolidate their customer base – this means better customer management through deeper customer insights, led by advanced analytics.

There is also the increasing complexity of operating costs. If we break down the opex for a typical insurance provider, major components will include claims management, policy management, fraud, and of course, IT expenses. A McKinsey report suggests operations and IT accounts for 50% of a typical insurer's cost base, in large part driven by claims management and policy servicing cost. Advanced analytics, such as fast track claim prediction, claim propensity prediction, fraud analytics etc., can be leveraged to make insurance providers more cost-efficient.

Despite its immense potential, advanced analytics has yet to become a staple for insurance providers. This is due to three clear challenges:

The unavoidable skills gap in data analytics

Data science is among the most in-demand skillsets in the world today. According to some estimates, data science will account for 28% of all technology roles by 2020. On average, however, jobs lie vacant for up to 45 days due to lack of talent. Even when there is a data expert or a dedicated analytics team on board, they are unlikely to be versed in business requirements. This leads to an unavoidable gap – on the one hand, there are expensive technical resources without the requisite domain understanding, and on the other hand, there are insurance experts who face a steep learning curve when it comes to data literacy.

The inability to look beyond traditional data sources

To be truly effective in the long term, analytics cannot be limited to only those datasets housed within the enterprise. There's now a plethora of touchpoints that could be beneficial for gathering insurance data, including social media, IoT, and third-party customer data libraries. These span multiple formats, including structured, unstructured, and semi-structured data sets. Apart from transactional systems, these too must be integrated into the insurance organization when looking for analytics use cases. And, centralized visibility is required across the organization, gaining from a single source of truth.

Slow time to value for analytics projects

It can be difficult to identify where exactly data analytics could play a role in the insurance value chain. At a high level, it is possible to envision the proposed future landscape. However, when it comes to on-ground implementation, firms struggle to align projects as per ROI parameters. Also, analytics is characterized by a formidable time-to-market. In our experience, it can take anywhere between three and nine months to build a data analytics solution from scratch and start generating actionable insights. Coupled with the current skills gap and the fragmentation in insurance data silos, companies are looking at an entire year or more before they see any returns from their analytics investments.

How Advanced Analytics Could Help: Key Benefits

Advanced analytics led by AI/ML/NLP has the potential to alleviate these challenges significantly and get insurers closer to ROI generation. Here's how it can address some of the challenges of the insurance industry:

Empower every employee with AI/ML/NLP self-service

These technologies simplify the data exploration process, allowing insurers to conduct automated data discovery or leverage conversational analytics. There's no need for complex dashboards or analysis — simple voice or text-based queries provide immediate benefit, thus speeding up time-to-value. This can enable self-service business intelligence to mobilize and monetize data across the insurance organization, without necessitating technical knowhow. This is key, given the skills gap insurers are facing in data analytics.

Faster time-to-market with augmented analytics

This broadly addresses two major challenges — scarcity of data scientists and slow time to value for analytics projects. Augmented analytics, driven by AI and ML, helps in automated data discovery and automated machine learning. This means that business users neither have to depend upon data scientists to uncover insights from their data, nor wait for months to get first level of relevant insights. With the help of augmented analytics, business users can act as citizen data scientists and generate their own insights which are faster and smarter, allowing them more time to make strategic decisions.

Explore innovative business models, led by non-traditional data

Advanced analytics lets enterprises gain from myriad data sources, such as IoT sensors embedded in insured vehicles. It is also possible to share alerts on smartphones and wearables, helping customers to take preventive action and thereby reduce claims volumes. This has particular relevance for catastrophe response and healthcare. Customers can file claims in real-time by just taking videos of their damaged property or vehicle. Deep learning techniques, specifically, will help to process social media data in real-time and create more comprehensive risk profiles. Telematics has helped automobile insurers monitor driving behavior and evolve from traditional a "same-size-fits-all" approach to "pay-as-you-go" approach in charging premium.

Accelerate valid claims and root out fraudulent ones

Fraudulent claims cost the industry as much as $80 billion every year. Conversely, customers submitting valid claims who have to go through a complex investigative process can feel frustrated and want to switch providers. Analytics can reveal which claims are eligible for fast-tracking and highlight fraudulent areas. It could even aid in claim propensity modeling to help insurers plan their operating costs more accurately. A health insurer was able to increase fraud detection accuracy from 5% to 48% using predictive analytics, optimizing its investigative efforts.

Boost revenues from new and existing customers

AI can reveal signals of customer churn before they start to take root. The insurer can take preventive measures for at-risk customers, lowering the possibility of churn. Also, AI-driven next best action will indicate any new requirement for existing customers, inspiring upselling and cross-selling campaigns. This can be informed by data insights gathered via social media and contact centers to obtain a holistic customer picture. Together, fraud detection and customer management will open up new areas for value generation, in line with ROI expectations from analytics.

Exploring an End-to-end Advanced Analytics Platform for Insurance

The ideal data analytics solution in insurance will come equipped with AI, ML, and NLP to convert varied forms of raw data into meaningful insights for every stakeholder. Further, the solution should be customizable, so that the insurer's unique business needs are met, without any compromise. The solution would comprise of the following elements:

Easier data management

With so many types of data sources now available and inadequate compatibility placed as a critical challenge, smart connectors with the ability to acquire varied data from multiple sources can be a possible solution to the challenge. This makes it easier for insurers to leverage all data available, internal or external to the organization, faster with minimum effort.

Pre-built models

This is critical to accelerating time-to-market. Insurers shouldn't have to spend time manually configuring a solution's analytics models to fit common needs. Pre-built templates for common use cases will help jumpstart implementation in scenarios such as claims management, policy management and billing administration.

An AI engine

AI, along with associated technologies like machine learning and natural language processing, can significantly speed up the decision-making process by giving futuristic insights through predictive and prescriptive analytics. If leveraged to its potential, it gives major competitive advantage by bringing analytics closer to business through self-service analytics in its truest form. This has significant, beneficial effects of reducing the overall operational expenses or reducing customer attrition through customer analytics.

Data as a service

Self-service analytics can only be successful when data in an organization is democratized, obviously with necessary checks and controls in place. This means data should be readily available and accessible by users everywhere. This implies integrations of analytical insights with multiple applications, making insight generation and consumption far easier.

Customizable and technology-agnostic

Every business is unique and needs to be addressed in its own unique way. Hence, it is essential that the vanilla solution be customized to meet business needs to the best possible extent. Also, once an organization adopts a tool or technology in its IT environment, switching cost becomes very high. The solution should be such that it can be adopted in the existing environment at minimal cost.

These elements go a long way in addressing the key challenges to realizing ROI from data analytics in insurance. Since the majority of the solution modules will be pre-built, insurers can speed up adoption and take advantage of market opportunities immediately at minimal cost due as switching cost is eliminated. Customizable solutions mean that insurers are not constrained by available features. Customizable solutions offer flexibility and enable businesses to meet specific needs. Self-service will resolve any gap in data science skillsets, empowering literally everyone across the organization. Finally, the AI engine will help insurers look into the future (or deeper into their problems) and make proactive decisions toward business growth.

How Zensar Can Ease the Transformation Journey

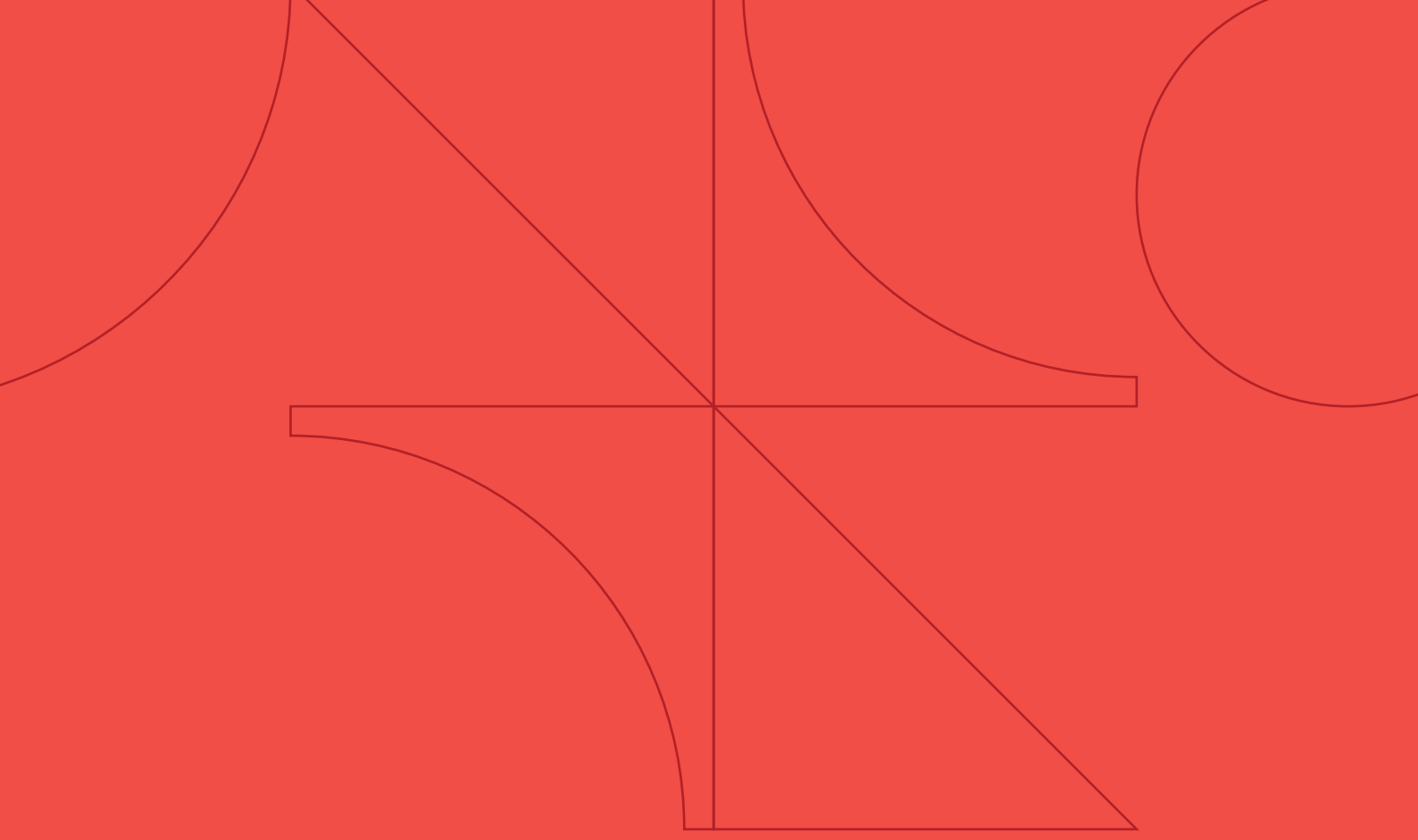
At Zensar, we recognize that data can prove to be a revolutionary force for insurers if leveraged correctly. Zensar's insurance analytics platform, powered by ZenAnalytica, is built on the core principles of an ideal solution as outlined above and consists of solutions across the insurance value chain. Solutions available in our ZenAnalytica platform include 50+ pre-defined KPIs on claims management, policy administration, fast track claim prediction, FNOL processing, claim amount prediction, customer churn prediction, customer lifetime value, sentiment analytics, augmented analytics, conversational analytics and more. These are available among various enterprise systems, including Guidewire platforms. Insurers also have the flexibility to choose specific plug-and-play solutions from our platform to meet particular business needs, instead of across the whole platform.Our ZenAnalytica-based insurance analytics platform is built by combining capabilities of Zensar, an expert in advanced analytics with 200+ successful implementations, and Cynosure, a Guidewire implementation partner with 100+ guidewire implementations. We boast of up to 60% faster time-to-insights and 50% increased productivity through our proprietary insurance analytics platform. Thanks to AI/ML/NLP-based self-service, insurers can also reduce their dependence on IT by 60%, which results in real time insights generation at reduced operational overheads. This, we believe, will be essential for insurance enterprises as they aim to stand out in a competitive market.Learn more about Cynosure and Zensar's AI/ML based analytics platform and Zensar's insurance analytics platform.

For more information about analytics, please contact:

Abbasi Ujjainwala
Guidewire Practice Head
BFSI, Zensar
abbasi.ujjainwala@zensar.com

Rahul Athalye
Global Practice Head
Advanced Analytics and
Data Science
r.athalye@zensar.com

Samyadeep Saha
Business Development Manager
Advanced Analytics and
Data Science
Samyadeep.saha1@zensar.com



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We conceptualize, build, and manage digital products through experience design, data engineering, and advanced analytics for over 145 leading companies. Our solutions leverage industry-leading platforms to help our clients be competitive, agile, and disruptive while moving with velocity through change and opportunity.

With headquarters in Pune, India, our 10,500+ associates work across 30+ locations, including Milpitas, Seattle, Princeton, Cape Town, London, Singapore, and Mexico City.

For more information please contact: **velocity@zensar.com | www.zensar.com**