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How to be a Cloud data driven insurer

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ABSTRACT

This paper focuses on the transformative journey of insurance companies becoming data-driven organizations. It highlights the importance of rapidly interpreting data to address challenges such as claims inflation and fraud, and to innovate products and pricing models. Emphasizing the role of real-time advanced analytics, AI, and ML, the paper illustrates how these technologies facilitate informed decision-making, helping insurers remain competitive and profitable. It also explores the inefficiencies of traditional on-premises data management and advocates for cloud migration. Furthermore, the paper delves into dismantling data silos, fostering a culture of data- driven decision-making, and leveraging seamless data flow to enhance customer experiences and drive innovation.

Keywords: Data-driven, Real-time advanced analytics, Cloud migration, Customer data management, data silos

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INTRODUCTION

In the competitive and heavily regulated insurance sector, it's clear why companies are eager to unlock the potential of their data. Whether it's addressing claims inflation or fraud or crafting innovative products and pricing models, the ability to rapidly interpret this data is crucial for staying relevant and profitable. Real- time advanced analytics, driven by artificial intelligence (AI) and machine learning (ML), facilitate quicker and more informed decision-making. This enables companies to proactively tackle the challenges and opportunities they encounter. The traditional approach of adding more on-premises servers to enhance computing power and manage data is no longer sustainable for insurance companies. As they accumulate increasing amounts of data from customer interactions and claims, migrating data management to the cloud and utilizing AI and ML becomes the most efficient and cost-effective method to modernize processes, improve decision-making, and scale operations.

DEMOLISHING SILOS

Today, many traditional organizations function as a collection of related but disconnected units. Due to internal competition, risk management, or legacy technology, these units often work ineffectively with, or even against, each other, prioritizing process optimization over overall business and customer value.

Some organizations have started to build data management. Understanding customers as individuals rather than just segments allow for the delivery of seamless experiences, and the ability to up-sell and cross-sell relevant products and offers at the right time in their life cycle. Additionally, identifying those at higher risk of accidents or losses enables targeted communications focused on prevention, thereby reducing claims costs. [1]

Legacy data often presents issues because it is typically collected, structured, and stored in databases designed for specific, limited purposes, embedding a one-to-one relationship within the data and making it difficult to repurpose for new or evolving needs. Enterprise data usually mirrors the organizational structure that created it, resulting in siloed, internally focused data that is not customer-centric and often structured to report historical information from weeks or months ago, failing to provide insights that can influence current events. Symptoms of poor data flow include manual transaction reconciliation by numerous staff, persistent bottlenecks in deploying or scaling automation, reluctance or inability of departments working on the same customer value chain to share data, and decision-making based on outdated, partial, or inaccurate data, often stored in spreadsheets.

In a data-driven organization, thriving in a competitive landscape hinge on the data they possess and the decisions and actions derived from it. Operationally, data must flow seamlessly, be available in real-time or near real-time for

analysis, cross-referencing, modeling, and actionable insights. Data should no longer be static, stored merely as structured reports; instead, it should support many-to-many relationships, enabling interrogation, analysis, and cross-referencing across teams, functions, and sources. This dynamic approach to data forms the foundation for personalized customer experiences, facilitating engagement throughout the customer lifecycle as a cohesive entity.

MIGRATING TO CLOUD

In today's landscape, cloud adoption is essential for any firm aiming to transform its marketing, customer service, risk management, pricing, claims, complaints, and fraud processes. Despite recognizing these benefits, insurers often find cloud migration daunting due to the associated costs, time, and risks. The choice of vendor can significantly impact the complexity of migration. Re-engineering code to comply with regulatory requirements is costly, especially given the current shortage of tech talent. Additionally, operational disruptions during migration can affect underwriting policies, claims management, and customer service. However, for companies already using cloud deployment is relatively straightforward. It allows them to modernize by integrating, building, deploying rapidly, and managing models at scale.

Cloud deployment has become urgent for insurers as sectors like retail and entertainment have heightened customer expectations. There is a competitive race to leverage advanced analytics for profitable growth, and insurers cannot afford lengthy delays. Engaging with consultants and vendors to initiate cloud migration projects is crucial to meet the immediate demand for personalized and seamless customer experiences. [2]

DATA DRIVEN ORGANIZATION

In a data-driven organization, information is accessible to everyone and open by default, enabling the organization to function as a unified system in real-time. There is a continuous, high-velocity flow of real- time data from internal processes, IoT, and other devices. This data is available in its raw, unstructured form, avoiding the issues of partial or incomplete data when used by different teams. By elaborating on the geospatial aspects of data, new value can be unlocked. Individuals, teams, and departments are equipped with the tools, skills, and understanding to manage data effectively. Teams are aligned around creating value for the entire organization, supported by incentivization and the evaluation and approval of business cases.

A data-driven organization sees immediate value in investing in specific teams or departments, with benefits cascading throughout the business. This transparency influences team thinking and transforms their approach to daily operations. With data flowing seamlessly, assets' status and performance can be monitored in real-time, allowing for risk management based on data rather than assumptions, as seen in underwriting or claims processes. Customer communication becomes responsive and even preemptive.

The transformation is underpinned by feedback loops and multidirectional flows of information, essential for automation, AI, and machine learning. Without these feedback loops and data flows, automation initiatives risk amplifying inefficiencies and errors. A data-driven organization can be monitored, modeled, and optimized as an integrated system, driving product development and innovation with significantly reduced time-to-action and time-to-value.

DATA PIPELINES

In a data-driven organization, data pipelines ensure that information is accessible to any authorized individual, team, or department that needs it. Information is no longer siloed, reflecting a rigid and adversarial departmental structure. Instead, data is used to drive whole-system change by "working backwards" from the customer. Data from one function can be accessed, interrogated, and combined with data from other processes or external sources.

Data pipelines are continuous streams of real-time data, akin to water flowing from a tap, created by data producers and utilized by data consumers. These pipelines drive the feedback loops essential for operationalizing automation, machine learning, and AI initiatives, making the organization more effective, competitive, and intelligent. However, the effectiveness of these innovations relies on the quality of data flow; partial, outdated, or inaccurate data will only amplify inefficiencies. With established data pipelines, you can ingest large volumes of raw, real-time data from systems, devices, ecosystem partners, and even customers. This enables processing, matching, and linking the data to create value and establish feedback loops that drive action. Modernizing the legacy infrastructure to enable data flow at scale, and building the business case for further deployment of data-driven changes also contributes here. This approach ensures that data is accessible, accurate, and actionable, empowering the organization to make informed decisions and drive innovation across all functions. Data is the most valuable asset in the insurance industry, driving decision-making in risk assessment, personalized marketing, and new pricing strategies.[3]

OPERATING MODEL FOR BEING DATA DRIVEN

Becoming a data-driven organization requires more than defining a target operating model (TOM) and creating a multi-year strategic plan. In today's fast-paced world, agility across all functions is crucial. Traditional data warehouse programs, which mandate that teams supply their data to a central database in a specific format, often fail to improve customer onboarding, policy issuing, or fraud detection. These strategic exercises typically take 2-3

years to complete and merely compile existing data. A radically different approach is recommended for insurers, focusing on developing new capabilities centered on customer value, enabling rapid output and impact evaluation. The goal is to understand, analyze, take action, and assess results quickly. Prioritizing value delivery over technology-centric TOM approaches, which aim to build a data utopia, is essential. Organizations must move swiftly, concentrate on business drivers, and foster a culture that can adapt and evolve. A data-driven organization may not have all the answers or a proven blueprint for success, but it possesses the vision, tools, information, and data literacy to discover them. Data should flow freely, being available where and when needed rather than stored and static. Timeliness is crucial; having data available in real-time allows it to inform decisions and actions instead of merely reporting on them after the fact. Data should be accessible in its raw, unstructured form to prevent it from becoming partial or misleading, enabling the organization to work with various data types and formats without waiting for 'perfect' data. This also ensures traceability of manual corrections and derived data over time. The ability to use data should be multidimensional and geospatial, supporting many-to-many relationships and accommodating numerous data producers and consumers, rather than being structured solely for specific, pre-defined purposes. Leaders must foster a cultural change regarding data and invest in data initiatives, encouraging individuals, teams, and departments to build business cases that cut across internal silos and focus on overall business value rather than optimizing each department in isolation.[4]

SUCCESS PARAMETERS

Demolishing Data Silos

Departments such as claims, marketing, sales, and underwriting often maintain their own separate databases. When these databases are not interconnected, each department works with a limited view of information, leading to a common issue known as data silos. This results in valuable insights being confined to specific dashboards that many within the enterprise may not even know exist. Deconstructing data silos can be a challenging task. Your enterprise data might be stored in a variety of formats, including call center portals, Excel spreadsheets, commission tracking software, and even physical file cabinets. However, breaking down these silos is essential for building a collaborative, data-driven organization where data can flow freely and be used effectively across departments. These solutions can also leverage automation to rapidly digitize paper records and utilize IoT devices to capture real-time data that may have previously been untraceable within your organization. Ensuring high-quality data in the insurance industry involves more than just accuracy; it also requires having a complete, auditable, and consistent data set that aligns with the rest of the data collected by your company. This consistency allows decision-makers to use the data with confidence. [5]

CONCLUSION

In the competitive and heavily regulated insurance sector, becoming a data-driven organization is essential. Leveraging real-time advanced analytics, AI, and ML transforms data interpretation, enabling insurers to tackle challenges and seize opportunities swiftly. By dismantling data silos and migrating to cloud-based solutions, insurers can streamline operations, improve decision-making, and enhance customer experiences. In conclusion, the journey to becoming a data-driven organization is challenging yet rewarding. Insurers investing in this transformation will enhance operational efficiency and unlock new growth and innovation avenues, ensuring their relevance and profitability in the future.

REFERENCES

[1]. BCG (2018). Building New data engines for insurers
[2]. McKinsey (2018). Digital Insurance in 2018
[3]. Swiss Re (2019). Data Driven insurance. Ready for the next frontier
[4]. Digital Insurer (2018). Data Driven Insurance
[5]. McKinsey (2018). How Insurers will get most out of their digital transformation