Leveraging Data in Insurance Business Operations

Abstract

To deliver best-in-class customer experiences, insurance business operations need data-driven decision-making. Organizations need to gather data not just from operational and transactional systems but also from wider enterprise systems. They will need a data platform that can deliver operations and control reports, KPIs, metrics, long-term trend analyses, analytics, and their visualizations -- in, or close to, real-time. These insights into operations will introduce agility in operations management, reduce cost, and improve customer experience.

Introduction

For business operations pertaining to life insurance, annuities, pensions, and retirement services to function optimally, firms need to have a strong data-driven culture in place. The ability to organize and leverage all kinds of performance, channel and customer data are key to effective workforce management, empowered staff, streamlined processes, reduced costs, identification of service inefficiencies, and enhancement of business and operations services. Challenges in delivering business services to customers and agents mostly stem from delayed responses, poor quality responses, and organizations' inability to do root cause analyses and take corrective actions based on data insights.

Data-intelligent operations can overcome these challenges and unlock new business opportunities for the organization. In this white paper, we will focus on the potential for data-intelligent operations in the key areas of customer-facing interactions and back-office tasks. These are supported by all channels of customer and agent requests, such as voice, chat, self-service and mailroom, with CRM, workflow, and administration systems providing transaction management and a system of records management.

Insurers and other financial services firms must change their work cultures to get insights into data and learn from it, to clearly understand the service experience being delivered, its trends, cost-management and planning. Insurance companies that invest in customer and agent service with data solutions will be on the path to achieving long-term success.

Challenges and Trends

In our work with insurance companies, we have come across a pattern of challenges that may be common for other industries, as well. The challenges are about the availability of data, the capability to process them to extract insights, and the ways in which the insights can be used.

Availability of Data for Insights

Generally, a process-driven approach for major functions – such as agency management, policy administration, and claims processing, among others – within an organization is limited by legacy transaction processing systems, workflows, and dashboards that are not integrated. Sometimes, front-office systems and back-office systems also are not integrated. The same holds true for major enterprise systems and management information systems (MIS). This results in enterprises having to use manual spreadsheets to follow metrics related to incoming requests, the channels via which they are received, the available staff pool, productivity, and errors committed.

Organization Structure

While many insurance companies grow through mergers and acquisitions, in most cases, organizational integration and system integration are overlooked. Some organizations outsource a few functions (such as contact centers and claims operations) to third-party service providers. Also, in certain organizations, one line of business may have a higher level of maturity than others. These discrepancies limit data capture and reporting capabilities, as well as the overall view of customer feedback and metrics.

Lower Digital Adoption

Except for marketing and interaction channels for customers and agents, insurance companies lag with respect to other industries' digital adoption. Data collection and tracking from CRM, customer journeys, business process activities, business events, and case management are not consolidated to facilitate reporting and analytics. This prevents insurers from tracking and

reporting events such as customers switching channels, operations being suspended due to external dependencies or business calendar events, the lack of availability of staff to do a job, or internal ticket (IT or business) management.

Recommendations

Overcoming these challenges requires an organizational drive to improve customer experience and reduce costs incrementally and iteratively. Adopting standard KPIs and metrics are initial steps that successful organizations have implemented. There is a need to improve this further through technology solutions that can circumvent legacy system challenges, as well as through data-driven initiatives and decision-making processes.

Data Platform

Transaction processing systems such as CRM/customer master, administration systems, claims management, agency management, commissions, billing and receipts, work management systems such as workflow, BPM, case management, and channels such as voice, mailroom, and indexing should be able to produce data that could be sent to a data solution comprising data warehouses, data marts, analytics models, analytics engines, and visualization and reporting components. This is accomplished through a data management layer with an Extract, Transform and Load (ETL) framework and a data quality framework. The data transfer is for an incremental delta of data from the above-referenced source systems as batches, mini-batches, or near real-time data ingestions.

The Business Process Management (BPM) layer is capable of its own real-time dashboard that provides business activity monitoring for the activities that are a part of the modelled processes. The dashboard can depict tasks created/completed and business activity/process completion with drill-down capabilities. The performance can be viewed at the process, team, or individual level with cost, SLA compliance, or the number of processes that resulted in errors.
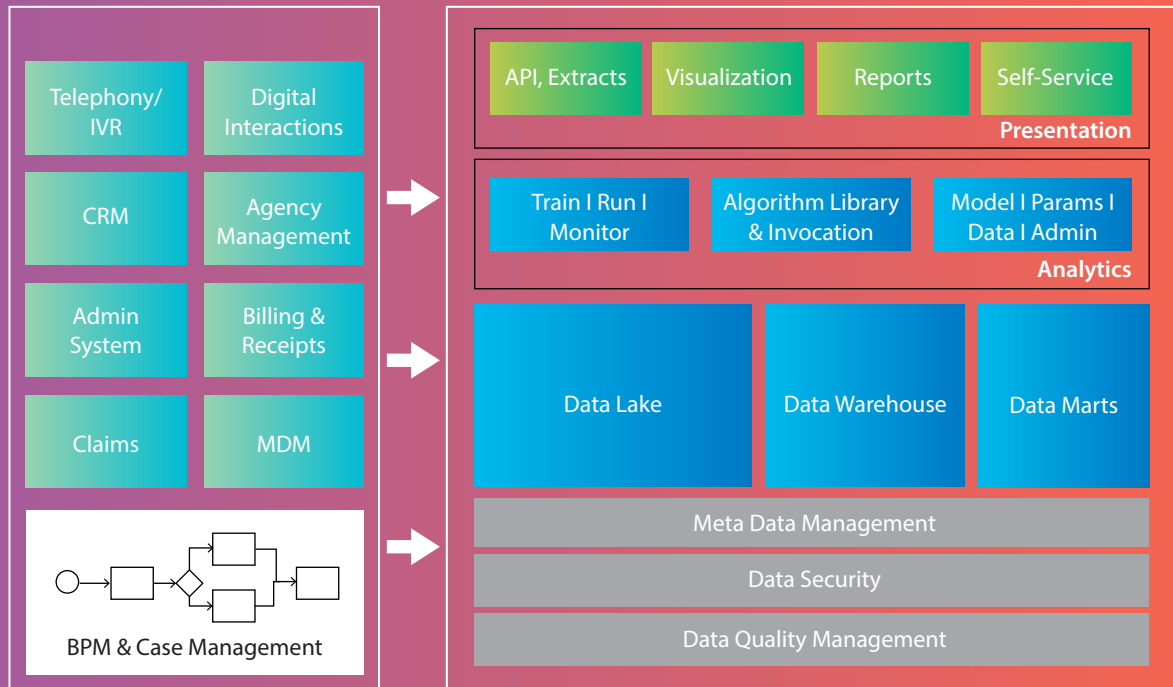
However, there are systems that are beyond the actual scope of BPM implementations (which are performed predominantly by business functions). These systems are mostly on the input channels, CRM or other business functions. The data and analytics platform helps to include data from the wider scope of systems and operations, from the entry of a service request/complaint all the way to its closure. The data platform will be able to accept detailed feeds from third-party administrators (TPAs), which can be correlated to operations, and sent into analytics and visualization.

The implementation of the data platform can be incremental and based on the data intelligence to be developed. The development can be independent of the existing IT systems' complexities or priorities, as this development is driven by the visualization, dashboard, and model requirements that are needed for the operations. The other supporting capabilities, such as data provisioning, ingestion, controls, reconciliation, and data management, can be adapted to the evolving enterprise IT changes.

KPIs and Metrics

In addition to control/audit reports, operations, management reports, and transaction/reconciliation reports, there are several standard KPIs and metrics for supporting operations and customer experience that are essential to run the day-to-day business. An insurer should be able to adopt metrics that fit the operating model of the business. Standard metric reporting adopted by data-proficient organizations includes first-response time, call-handle time, first-call resolution, agent and department locations, IVR and queue listing, quality of support, customer satisfaction and feedback, Net Promoter Score, customer effort score, and customer retention rate.

Organizations that also analyze long-term, trend-based data can provide detailed service insights, tickets by category, tickets by channel, top errors, top scenarios, SLA breaches, call disposition reason/rates, and support costs versus revenue. Therefore, insurers need data from all the above transaction processing systems to go into a data platform.

Key Tools

Modern data platforms are built on big data solutions and NoSQL databases that can hold large volumes of important, historical data. Data platforms are also built on traditional relational database solutions where data volumes are manageable. Analytics solutions are sometimes as simple as Python libraries, and open source/RStudio. There are also sophisticated frameworks, such as TensorFlow, for neural network solutions. These libraries and frameworks are capable of supporting standard algorithms under classification, association, simulation, optimization, forecasting, and anomaly detection.

For visualization, there are options such as JavaScript frameworks available. They offer flexibility for visualizations and layout options for dashboards and wallboards. Some of TCS' implementation experience involves enabling a self-service report development environment for the operations staff. There are standard tools that are provided by the vendor. Also, cloud providers have a complete stack of tools and frameworks for visualization and a complete data platform.

Proactive Work Culture

Organizations need to foster proactive work cultures and take preventive and corrective actions based on KPIs, metrics, and trend analyses. Insurers should adopt some form of Deming Cycle/Shewhart cycle (also known as the plan-do-check-act, or the PDCA). They also need to do a root cause analysis based on findings/data and continuously develop/deploy countermeasures or try other adjusted changes.

Some of the corrective actions possible from such analyses include improving the standard operating procedures, updating knowledge management content, implementing additional data validations while initiating transactions, continuous education of insurance customer service agents, and identifying robotic process automation opportunities. All these factors might contribute to increased productivity, improved response and resolution rates, spotting of service inefficiencies, streamlined processes, reduced costs, and enhanced services.

Conclusion

Insurance companies and their operations teams should continually seek to improve their customer experience, enhance employee satisfaction, and reduce costs, with initiatives based on an end-to-end view, facts, trends and insights. They need data platforms capable of extracting data from all transaction systems and relating the data from other disparate enterprise systems to develop insights and reports. Developing integrated process models, modernizing IT legacy systems, and developing a new enterprise architecture may take time, but a data platform that can support operations can be implemented with the help of an ETL/data ingestion layer without other dependencies.

KPIs and metrics will help an insurer's support staff to engage customers and agents by enabling a more refined approach, leading to consistently better experiences that result in enhanced loyalty, retention and growth.

About The Author

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