**Best Achievement in Data Analytics Enabling Operational Excellence**

**Summary**

MetLife’s digital strategy aims to unlock the potential created by the shifting landscape of the digital age, where customers are highly empowered. Our goal is to deliver value through exploiting existing opportunities, products and services, and drive growth through exploring new opportunities through partnerships and adjacencies. As a part of this strategy, the company is in the midst of a multi-year transformational effort to enhance claims processes through new digital solutions that increase efficiency and simplify the employee and customer experiences.

MetLife is harnessing the power of data by incorporating data analytics into its processes across the claims lifecycle, enabling quicker and more accurate decisions and improved clinical outcomes for customers:

* Helping our employees become more empathetic and trusted partners for our customers with Cogito®. Its artificial intelligence technology acts as a coach – providing real-time alerts to help employees speak faster, slower or listen more – regardless of language or dialect.
* Simplifying a time-consuming, manual claims routing process by embedding machine learning, enabling automated assessment based on claim complexity for assignment to the right supporting resources (likely claim progression).
* These technologies transform unstructured, paper-based data for extended duration long-term disability claims into simple, digital dashboards and insights by leveraging analytics and artificial intelligence.

***MetLife’s claims organization implements data analytics solutions to create a differentiated customer experience and provide employees with the tools they need to develop as claims professionals***

MetLife is in the business of helping people navigate life’s challenges by providing insurance for a variety of needs – from disability and dental, to life and medical. Core to MetLife’s value proposition is its claims organization, which manages group and individual benefit claims for millions of customers in the U.S., Mexico and Japan. In 2017, MetLife completed millions of transactions for its customers, and it is committed to providing a differentiated customer experience that creates a competitive advantage.

MetLife’s digital strategy aims to unlock the potential created by the shifting landscape of the digital age, where customers are highly empowered. Our goal is to deliver value through exploiting existing opportunities, products and services, and drive growth through exploring new opportunities through partnerships and adjacencies. As a part of this strategy, the company is in the midst of a multi-year transformational effort to enhance claims processes through new digital solutions that increase efficiency and simplify the employee and customer experiences.

1. ***Improving Customer Interactions***

**The Business Challenge**

Within MetLife’s U.S. claims operations, claims specialists are often the face of MetLife to customers, so every interaction is meaningful. While new claims employees are onboarded with a robust new hire training program, job shadowing and coaching, the only way to assess claimant calls is for managers to review recorded ones, which may delay the delivery of learning opportunities.

MetLife is helping its employees become more empathetic and trusted partners for its customers with Cogito®, an artificial intelligence technology that acts as a coach – providing real-time alerts to help employees speak faster, slower or listen more – regardless of language or dialect. Supervisors can monitor call performance live and provide coaching immediately after the call.

**Implementation Process and Timeline**

From February to April 2017, the team conducted a 16-week pilot of Cogito® with 128 short-term disability (STD) and total absence management (TAM) claim specialists (with 50% in a control group) at our Bloomfield, Conn., facility. Functionality testing was conducted on five dialog alerts, and the supervisor and employee dashboards. The proof of concept was deemed successful, which led to the execution of a broader rollout across MetLife’s long-term disability (LTD), STD, Life and TAM claims groups across five sites.

**Overall Business Results**

The pilot saw exceptional results, including:

* 13% improvement in customer satisfaction scores month-over-month
* 10% decrease in average claim handling time
* 15% increase in customer engagement scores
* 3% improvement in first call resolution (FCR) customer rating
* 5% improvement in the customer Net Promoter Score (tNPS)
* 33% reduction in extended silences on calls, signifying greater customer engagement

**Next Steps**

Approximately 530 claims employees are using Cogito® today, resulting in real-time in-call coaching and better conversations that provide a differentiated customer experience. MetLife estimates it will have all U.S. claims employees using Cogito® by early 2019, and the teams are assessing whether to leverage this solution for its Mexico and Japan claims groups.

1. ***Simplifying the process for how we route claims***

**The Business Challenge**

MetLife’s LTD business processes more than 26,000 claims each year. Assigning the appropriate likely claim progression (LCP) to a new claim is a complex and lengthy task, which requires claims specialists to manually access and validate medical information and other relevant data in order to make their decision. Identifying LCP is an integral part of making an accurate claim decision, and the average time for this process has historically been approximately 38 days.

**Implementation Process and Timeline**

To make the LCP identification process more efficient and consistent for customers and claims employees, the claims organization’s advanced analytics team introduced machine learning. The solution uses available data (e.g. medical data) to assign a LCP to each new claim shortly after it is received. Once the LCP is identified by the model, a claims specialist validates the data collected throughout the process, checks the customer’s eligibility and makes a claim decision.

To make this possible, the team worked on many iterations of the model before rolling it out to production. The chart of pilots below shows the progression of operationalizing the model before it was ready for the full rollout.

**Overall Business Results**

The accuracy of the LCP model is defined as the match rate between the LCP predicted by the model and the final LCP assigned by a claims specialist. Early adoption of the LCP model within select claims processing groups met expectations, achieving a match rate of approximately 80%. This helped reduce the average time needed to make a claims decision by six days, which decreased the length of the overall process from approximately 38 to 34 days.

* 10% decrease in average claim decision time
* Approximately 8,000 claims scored through the LCP model, and decision time influenced

The model is currently running live throughout MetLife on a daily basis, and the organization continues to streamline the claims process and effectively leverage the LCP model results to improve business performance.

**Next Steps**

Approximately 400 claims employees are using the LCP model today, making a real-time impact on claim decisions, creating a better focus on claim management, providing claimants faster decision turnaround time and a better customer experience. MetLife is currently exploring model improvements to further reduce the time to make decisions, as well as automation of LCP assignments for segmentation and claim assignments.

1. ***Reassessing our Special Handling Unit for Claims***

The disability special handling unit (SHU) within MetLife reviews and manages approximately 48,000 long-duration LTD claims which typically have a duration greater than 24 months. Many have been on disability for over 60 months. Activities and financial information (AFI), attending physician statement (APS) and behavioral health assessment (BHA) forms are submitted annually by claimants and/or their physicians, a requirement to ensure they retain their benefits. 24 case managers work these claims, with an estimated caseload of 2,000 claims per person. The SHU review process had been inefficient, and there was an opportunity to optimize it.

**The Business Challenge**

In 2016, a challenge was presented to the analytics team: Can analytics somehow be applied to unstructured and manual data on the forms to enable the SHU team to be able to gauge meaningful variances more efficiently and accurately?

The analytics team enthusiastically accepted this challenge and implemented a data model, an analytics engine using AI, and text analysis and Qlikview visualization techniques to deliver a solution that provides the SHU team with:

* “At-a-glance” views of variances and anomaly patterns seen within the data
* Identification of follow-up opportunities which previously were difficult, if not impossible to identify manually
* Increased referrals and closures
* Quicker decisions
* One central view of data and results, rather than having to utilize multiple systems to compare form data

Through Captricity, the team was able to turn unstructured data into digital data by digitizing the form fields and applying analytical scores and weights to the form data fields. They were also able to develop a graphical and color-coded side-by-side display of the forms that highlighted the claims variance levels, which was provided to the team through the use of Qlikview.

**Implementation Process and Timeline:**

The SHU initiative was started in August 2016, with the release of the pilot shortly afterward in December 2016. Results and feedback were gathered and tracked during the pilot which, in turn, became useful inputs to three post-pilot software releases to support additional functionality. The pilot was deployed to production in April 2018.

**Overall Business Benefits**

Since August 2016, we’ve seen a decrease in claim processing and review timelines, and an increase in the following areas:

* 100% elimination of time required to identify target cases
* Accuracy of claim review results/variance detection
* Greater than 85% employee satisfaction with the program
* Improved referrals from SHU unit based on variance and need for additional investigation

**Next Steps**

* The SHU reassessment model is in place, and ongoing training and monitoring will remain
* The technology architecture used for SHU (Captricity Optical Character Recognition, Big Data Hadoop, Python and SAS analytical modeling, Qlikview visualization) in LTD is being used in an equally promising opportunity for our life waiver business