

Intelligent operations in insurance

Improve operations with embedded analytics



Client

Leading Fortune 500 insurer

Business case

Policy processing transaction volume varied daily, which frequently led to over- or under-staffing. EXL's embedded analytics, powered by MicroAnalytix®, improved the staffing model, optimizing operations.

Scope

- Developed forecasting models to predict future transaction volumes
- Maintained and updated models on an ongoing basis

Accurate forecasts for optimal capacity planning

Policy processing transactions for 24 segments of Commercial Lines required various teams. Depending on the number of transactions received, the number of agents needed varied at the segment level daily. The client had trouble forecasting its workload, frequently under- or over-staffing, which is costly and inefficient. The insurer leveraged EXL's embedded analytics capabilities to optimize operations. Data-driven processes improved transaction volume forecasts, which improved staffing, reduced overtime, and decreased attrition.

Models built in
3 months

Weekly level
variance reduced by **50%**

Reduced
instances of understaffing and overstaffing

Improved
and accurate forecasts for
transactions in the next year

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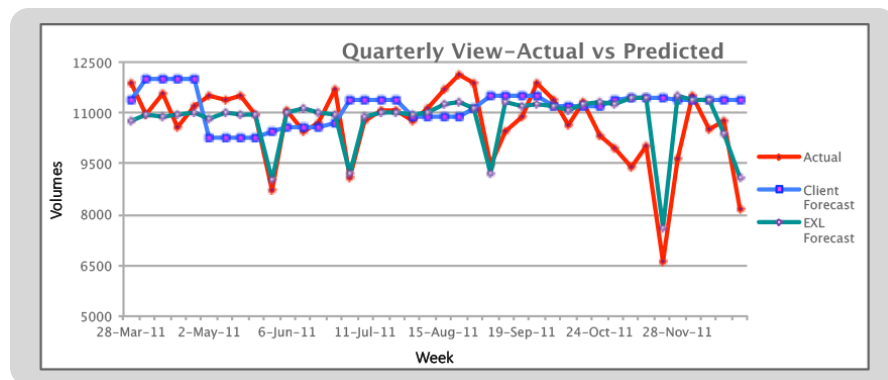
Approach

EXL's analytics team learned from the client's previous forecasting methods, then deployed a hybrid approach: EXL's methodology powered by MicroAnalytix® leveraged strengths of time series and regression modeling along with business intelligence. EXL's superior data cleansing coupled with operations expertise resulted in much more accurate forecasting models.

Overall, EXL built the gamut of models for all segments in three months. Validation was based on real-time data captured in three months.

EXL executed:

- Review of trends at daily level
- Imputation of missing values (e.g. holidays) using suitable statistical methods
- Development of hybrid models (Time Series Forecasting – Exponential Smoothing Approach and Linear Regression)
- Validation of results on test sample and comparison of findings with existing model
- Forecast of future transactions
- Real-time validation of data flows
- Roll-out



Outcome and Next Steps

The combined efforts led to better forecasts for transactions in the next year, which reduced instances of erroneous staffing. Furthermore, errors in forecasts declined by 50%. The efforts have incrementally improved the insurer's overall operations.

Though an initial impact has been made, periodic revisions in forecasts will continue to ensure ongoing improvement. These models will be built and implemented in partnership with the client on an ongoing basis. Future forecasts will be generated using these improved models.

Global Acclaim in Analytics

EXL participated in the world's biggest-ever data mining competition, the Heritage Health Challenge. Participants were tasked with the development of a predictive algorithm to identify at-risk patients. EXL's analytics representatives finished in 2nd place.

About EXL

EXL (NASDAQ: EXLS) is a leading business process solutions company that helps companies drive business impact and adapt faster to the changing global marketplace. EXL provides operations management, embedded analytics and technology platforms to organizations in the banking and financial services, healthcare, insurance, utilities, transportation and logistics, and travel industries. With 23,000 people around the world, we work with our clients as strategic partners to execute operations, identify opportunities to gain a competitive edge, and create new channels for growth and savings. Headquartered in New York and operational since 1999, EXL is present in the U.S., U.K., Singapore, Romania, the Philippines, India, Germany, Czech Republic and Bulgaria.

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