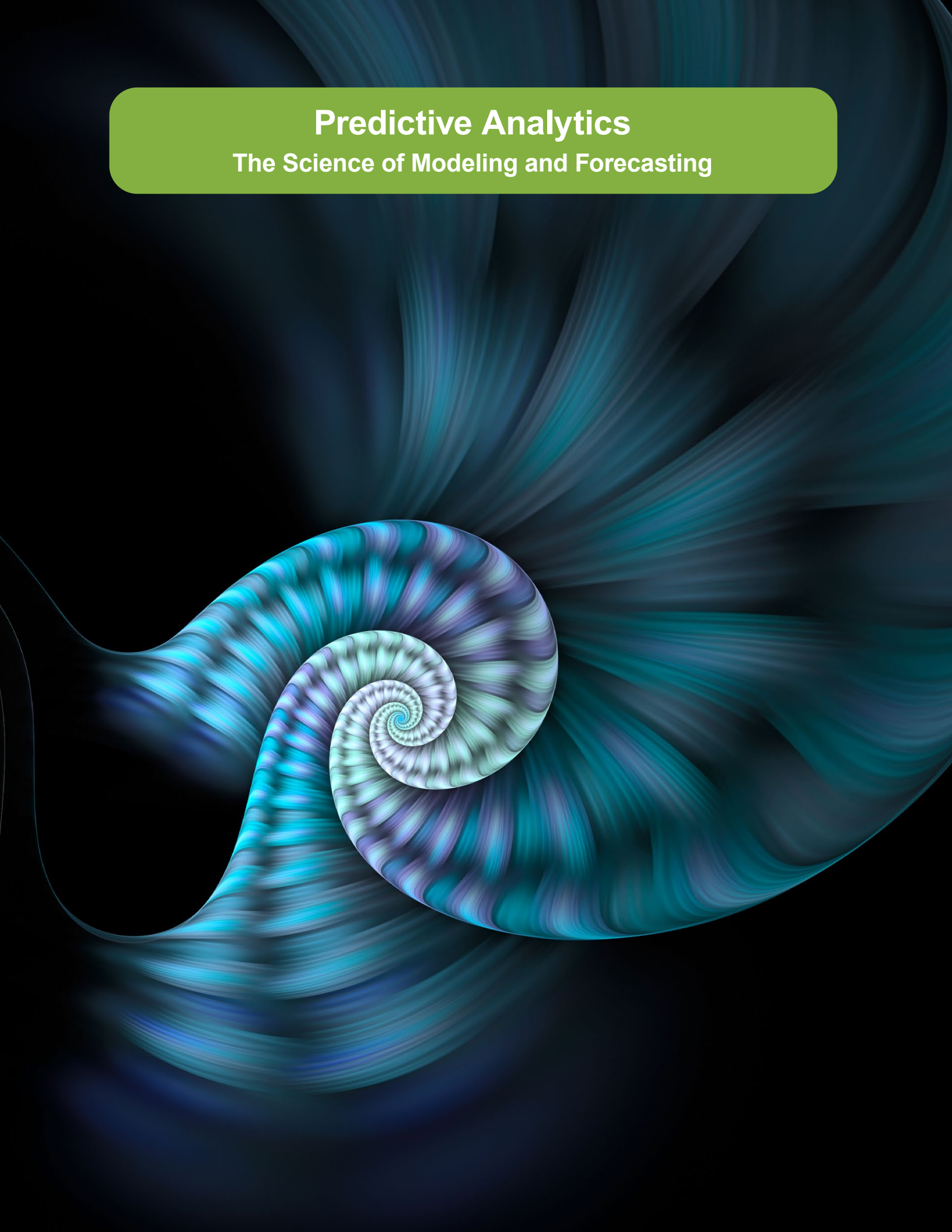# Predictive Analytics
The Science of Modeling and Forecasting

Return on Marketing Investment

Decision Analyst's Predictive Analytics Team strives to increase the returns on marketing investments by crafting advanced predictive models to:

- Data-Visualization Methods.
- Predict the effectiveness of advertising campaigns.
- Predict sales of new products.
- Optimize marketing mix models.
- Optimize media mix spending.
- Identify new prospects and acquire new customers.

Predictive Analytics

Historically, linear regression models have been the primary methods underlying Predictive Analytics, but the Predictive Analytics Team at Decision Analyst uses an arsenal of statistical techniques:

- Big Data Analytics.
- Classification and Regression Trees (CART).
- Data-Visualization Methods.
- Factor Analysis.
- Hierarchical Bayes Models.
- Latent Class Cluster Analysis.
- Logistic Regression.
- Machine Learning.
- Marketing-Mix Models.
- Net Lift Modeling.
- R-Language Modeling Techniques.
- Random Forest Methods.

- Support Vector Machine.
- Supervised Principal Components.
- Time-Series, Cross-Sectional Models.
- Social-Networking Models.

Decision Analyst

strategic research ■ analytics ■ modeling ■ optimization

Direct Marketing Optimization

Decision Analyst's experience with direct-response campaigns, combined with its marketing research capabilities, can help maximize campaign response, profit, and lifetime value of customers across these media:

- **Digita**l Media

- Websites

- Mobile Devices

- Direct Mail

- Email/Text Messaging

- Direct Response Advertising (Online and Offline)

- Catalogs (Online and Offline)

Data Science

Decision Analyst uses advanced statistical modeling to help clients exploit the strategic potential of their customer databases.

- **Volumetric Forecasting**

  The sales and profit potential of new products can be analyzed so that realistic estimates of first-year sales volume can be forecast accurately.

- **Data Cleansing and Data Integrity**

  Bad data inflates marketing costs and dilutes the power of analytics-based decisions. Predictive Analytics begins with making sure the databases are as good as possible. Cleanup and restoration efforts are extensive. Modeling efforts are concentrated on the variables with the highest potential to predict.

- **Cross-Validation**

  Every predictive model is validated using a "hold out" sample of records. Model validation is extremely important to verify a model's predictive accuracy.

- **Web Analytics**

 Decision Analyst applies machine learning techniques to improve performance of: digital media, websites, and web communications.

- **Geographic Analytic Consulting**

  Geographic Information Systems (GIS), or geomapping, is a powerful method of analyzing customer and marketing data. Demographic, psychographic, and behavioral data can be overlaid on the same spacial maps.

- **Reporting**

  Information is of no value if it cannot be organized and reported promptly and accurately. Decision Analyst uses powerful multilevel reporting software with drill-down capabilities to quickly deliver important information to decision-makers.
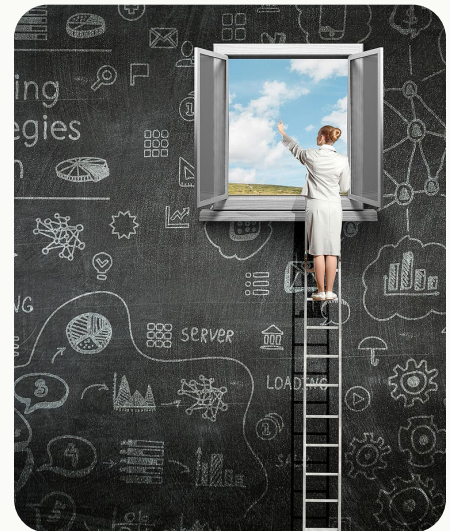
Marketing Research Services

Traditional Predictive Analytics often relies totally on historical data; this is like driving a car by looking only in the rear-view mirror. It works okay until there is a curve in the road. Markets are constantly changing, and marketing research allows us to look out the front windshield and anticipate the curves. Decision Analyst knows how to use qualitative research and survey-based data to help deliver forward-looking models and market intelligence.

Why Decision Analyst?

Decision Analyst is a global research and analytical consulting firm, serving corporate and agency clients in North America, Europe, Latin America, and Asia. The firm has more than four decades of experience in helping clients optimize marketing campaigns through forward-looking data science.

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