

# Improving Interactions with Advanced Analytics



The topic of advanced analytics is so prevalent in the marketplace today that a report from The Data Warehousing Institute (TDWI) predicts that “by 2012, 85% of organizations will practicing advanced analytics”.\*

\* Phillip Russom, TDWI Research Analyst/veteran industry watcher

Leveraging deep analytic modeling expertise, Vertex collects, arranges and prepares data for analysis. Our team of data modelers also generates reports, dashboards, scorecards, and advanced visualizations trying to balance what our clients need to view with what the data means.


## Data Warehousing and Business Intelligence

Once considered a mature market and commoditized by the consolidation of a number of niche Data Warehouse providers into a select few dominant leaders, this industry has re-emerged as an exciting new frontier with the notion that unstructured data can be organized and used for analysis. Through the use of relationship databases,

entities, attributes and cardinality, data modelers had perfected the art of storing data and viewing it through a number of techniques, most notably reports, scorecards, and dashboards. However, data such as the voice interaction between an agent and a customer, the cumbersome variable length IVR log-file or long blocks of text generated by chat sessions were often disregarded as viable sources of data. There was no existing technology to extract the meaningful parts.

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## Unlock the Hidden Business Value Found in Trends, Anomalies and Outliers of the Data

The unstructured data landscape has changed significantly over the last five years. Competition to become the preeminent leader in speech technology, IVR analysis, and text data mining has intensified. The market demands have increased the need to understand the customer experience throughout every aspect of the customer journey. Along the way Vertex has researched, partnered and piloted initiatives aimed at leveraging these new sources of data. As a result, Vertex has gained a unique appreciation for the intricate nuances in transforming unstructured data into meaningful information and can quickly disseminate which technologies are best suited to help solve our client's needs.

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As a global leader in the BPO marketplace, Vertex has developed deep expertise in extracting and using data from traditional data sources such as: the contact center, customer surveys, customer information systems, billing systems and quality assurance teams. Recently we have supplemented these traditional data sources with unstructured data sources such as: speech to text conversion, IVR path routing and text mining tools in an effort to extract additional business value. Joining together these disparate sources of data used to complete a holistic view of the customer, but today data from social networking sites is also needed if the aim is to include all customer feedback. Until two years ago 98% of all customer feedback was contained within the traditional customer interaction channels: phone, IVR, Web and chat. Today traditional customer interaction channels only make up 50-60% of all customer feedback with social networking sites containing the balance. This trend is predicted to increase over the next five years.

### Advanced Analytics

Our experienced analytical staff comprised of Ph.D. and Masters level statisticians and econometricians, apply their data and statistical modeling expertise to data sets

captured by the interactions Vertex employees have with our clients' customers every day. The purpose is to unlock the hidden business value found in trends, anomalies and outliers of the data.

The field of statistics has been around for decades. While most people link statistics to the prediction of political races or for setting rules in casinos, statistics is beginning to garner attention in nearly every industry. While Vertex has deployed a number of techniques, methods and equations to extract business value, two specific areas often resurface:

### Predictive Analytics

Vertex has utilized analytics to better understand the interactions our agents have with our clients' customers when our primary focus has been to transform contact centers into business intelligence centers. As success grew we expanded the use of analytics to help predict whether a customer would:

- Purchase a product or service
- Churn or attrite
- Enroll
- Go into arrears
- Get out of arrears

## Customer Segmentation

Predictive analytics tries to determine the likelihood of an event occurring in the future for a certain individual, customer segmentation is breaking down an entire customer base into segments that exhibit similar characteristics. For example, Vertex has seen an increased need to identify which customers are likely to default on their contract arrangement. Using historic data Vertex was able to determine that customers under the age of 40 with a credit score below 615 that lived in an apartment were three times more likely to default than other customer segments.

Today's forward thinking organizations want to know:

- Who are my satisfied and loyal customers?
- Which customers are loyal and most profitable?
- What products or services do my non-satisfied customers demand?
- What channels do my loyal customers use?

## Analytic Deployment

Until now the discussion has strictly been centered on organizing and identifying trends, and anomalies in the data. While this effort might generate a buzz within the organization it doesn't necessarily create any business value. Organizations must act on the newly acquired information generated from advanced analytic models.

Predictive analytics by itself doesn't make money. It might be nice to know that a customer who is between the ages of 30-35, has been a customer for more than five years, and has just purchased product "A" from a contact center representative has a 92% likelihood of also purchasing Product "B" if presented the opportunity, but how do you capitalize on this knowledge? In this example two things need to happen. The first is that an **intelligent decisioning system** must recognize that a customer has just purchased product "A" and that the predictive model suggests that this customer fits a profile which indicates there is a high likelihood that the customer will accept Product "B" if it is offered. The second is that a **proactive response mechanism**, in this instance probably a screen-pop, must alert the agent to offer the product. Commonly referred to as a rules-based engine, Vertex has helped deploy and measure results across a number of technologies and scenarios creating a specialized team of practitioners equipped to handle nearly every situation.

Customer segmentation is useful in determining what type of customer traits will respond to certain stimuli. For example, if it is determined that customers under the age of 40 with a credit score below 615 and living in an apartment are 3 times more likely to default, then it makes sense to start a **campaign** designed to require a deposit from any new customer who fits into that same profile to limit exposure to this group's historically high default rate. Similarly, if it is determined that an organization's most profitable and loyal customers are concentrated in two zip+4 codes, are over the age of 45 and own three or more automobiles, rather than send out random customer enrollment requests through an outbound dialer the enrollment exercise should become more focused on a demographic which possess a high propensity to enroll. Furthermore, the spend required to capture these new customers should also be intensified.

## Meeting Our Clients' Objectives:

Vertex has built its analytic capability to meet the performance objectives of its clients: Revenue Generation, Revenue Protection and Improved Operational Performance.

### Revenue Generation

Our core offerings have been proven to ensure clients optimize the amount and efficiency of generating new revenue across channels, including the Web, Retail Store and Contact Center. Their objective is to successfully enable the right offers to be identified and presented to the right customers at the right time, efficiently across communication channels.

### Vertex Offerings Include:

- **Abandoned Application Recovery:** Tracking and analyzing customer Web activity to identify proactive contact opportunities to drive order fulfillment.
- **Up-Sell & Cross-Sell:** A full suite of capabilities to optimize a sales function within a service environment, from customer segmentation to incentive alignment.
- **Customer Satisfaction & Loyalty:** Creating an integrated view of the customer experience, including employee and customer perspectives, to identify root cause opportunities.
- **Enrollment Analytics:** Driving increased new customer sales through prospect prioritization, contact strategy and agent effectiveness analytics.

### Revenue Protection

Once a Vertex client has gained a new customer, we partner together to protect this revenue stream customer value. Our proven offerings are designed to enable clients to better understand the needs of their customer base and implement proactive and reactive solutions to collect unpaid debt and retain valuable customers.

### Vertex Offerings Include:

- **Social Networking Analytics:** Go beyond phone and email channel analysis to understand your customers' needs, perceptions and challenges across the entire social web.
- **Debt Collection Modeling:** Identifying which customers are most likely to not pay back debt so that proactive contact strategies can be implemented to assure revenue.

The ability to organize data, identify trends and deploy analytic mechanisms has allowed our team of decision scientists to tackle a wide array of business problems and deliver business value.

- **Retention Management:** A combination of advanced analytics, use case development and process analysis to identify controllable & non-controllable churn and retention strategies.

### Improved Operational Performance

Vertex offers clients a full suite of capabilities from back-end data architecture and optimization all the way to analytics of customer contacts within and across communication channels. Our customer care analytics experts can help you identify ways to remove unnecessary customer contacts, improve efficiency of your contact center or increase call containment to self-service channels.

#### Vertex Offerings Include:

- **Business Intelligence, Data Architecture & Optimization:** Helping our clients ensure that their core data is secure, efficient, visible and useful for the business.
- **Contact Center Optimization:** Helping clients better understand the reasons for customer contacts so that unnecessary issues can be removed and inefficient processes can be improved.

- **Cross-Channel Optimization:** Automated analytics to identify how customers interact within and across the Web, IVR and Contact Center to help contain and resolve issues effectively.

Vertex's investment into advanced analytics has paid significant dividends for our clients. Our team of experts has helped our clients solve their business challenges and have demonstrated valuable results by helping to:

- Improve Data Architecture
- View and Understand Data
- Understand what Customers are Saying on Social Networking Sites
- Up-sell and Cross-sell products and services
- Retain "The Right" Customers
- Enroll "The Right" Customers
- Improve Debt Collection
- Improve Customer Satisfaction Metrics
- Improve Customer Loyalty
- Improve Contact Center Operations
- Improve Self-Service Channel (IVR, Web).

Vertex offers clients a full suite of capabilities from back-end data architecture and optimization all the way to analytics of customer contacts within and across communication channels.

If you want to learn more about how Vertex can enable the business outcomes you desire, visit our web site for more information or contact:

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