



Customer Satisfaction Index:
What's Missing in Your Net Promoter Score?

Net Promoter Score has long been the most common measure of customer satisfaction—and with good reason. It can be a simple means of assessing a customer’s aggregate sentiment toward a company based on their interactions across multiple channels. While Net Promoter Score may serve a purpose helping companies begin to measure and monitor customer sentiment, at Teradata we provide the solution necessary to understand sentiment at a granular level over the entire customer journey.

What were those touch points, and how did they individually, and in aggregate, drive a customer to be highly or poorly satisfied? What if the customer’s accumulation of events cannot be easily deciphered or pronounced, even by the customer herself? What if a customer’s sentiment toward any company is the specific result of a culmination of events in specific or non-specific order?

Truly understanding today’s customers requires a deeper study into behavior, sequence, and sentiment analysis. With this, we can better understand how a customer may arrive at her delight, and alternatively her discontent, with a company. To gain these insights, we apply what we at Teradata call “Customer Journey Analytics,” an evolutionary way to study and understand the customer journey and drivers of customer sentiment and satisfaction.

The company’s objective is not simply to view and track customer dissatisfaction to the point of detraction. Rather, it is to have the ability to intercept the customer and ensure a positive experience.

Customer Journey Analytics: A Day in the Life of a Customer

Customer Journey Analytics focuses on two major insights: sentiment analysis of text and sequence analysis of customer behaviors and events from multiple channels or touch points.

These two customer insight methods help to unveil the drivers of customer experience. They can be used to understand everything from customer purchases to customer churn, all while measuring customer satisfaction along the way.

Teradata has evolved the way we study the customer journey, integrating multiple customer events to build a composite sentiment score which yields a more accurate view into the day in the life of a customer. This type of customer behavioral analysis and sentiment analysis can help identify the motivations of promoters and detractors within any organization’s customer base. In other words, Customer Journey Analytics can provide insight into how a customer became a detractor before she responds to a survey, the traditional device by which Net Promoter Score is measured.

How it Works

A customer’s delight or displeasure is often cultivated over time, across many different touch points. Let’s take an example of a telecommunications carrier. If a customer needs to resolve an issue with a carrier’s product or service, the resolution of this issue will certainly impact their perception of the company. First, this customer searches through the carrier’s web pages for general help and support for a product. When web searches don’t help alleviate the issue, she then calls customer service several times—in this case, resulting in no resolution. Finally, the customer makes an appointment to enter a retail center to attempt to resolve the issue. After several attempts through several channels, it’s easy to assume that this customer could be highly dissatisfied. In this example, you see how one issue resolution includes three channels and several touch points.

A survey allows an organization to gain insight into a customer’s level of contentment or discontentment. Analysis over time may even reveal the drivers of general satisfaction—but how can a company understand the customer’s attitude towards the company as it is evolving? How can the enterprise actually measure a combination of events, as they are happening? And, further, how can they understand when a customer may be headed down a road of detraction before they respond to a survey?

The company’s objective is not simply to view and track customer dissatisfaction to the point of detraction. Rather, it is to have the ability to intercept the customer and



ensure a positive experience. Ideally, the company can then prevent detractor altogether. Eventually, when a survey is taken, the customer will identify as a satisfied customer and be included as a promoter.

Customer Journey Analytics enables users to study the behavior of customers and sequences of events to design customer treatments and operational improvements, ensuring the customer has the best experience possible.

The next question is: how then can we study this over the course of a customer's lifetime to better understand how several aspects and touch points influence the customer's sentiment and experience, *while it is happening?*

Building the Customer Satisfaction Index with Teradata Aster

Aster allows companies to study multi-channel data within a single environment. For an organization attempting to study web behavior, retail behavior, customer transaction data, network data from smartphone usage, and other various 'non-traditional' data sources and structures, these efforts traditionally have been fraught with complexity.

Using conventional methodologies, being able to analyze multiple channel touch points of the customer journey in concert can consume enormous resources, both in human capital, as well as infrastructure and analytical capabilities. Aster can integrate all of these data sets into one analytic environment. It also includes a library of over 100 pre-packaged analytic functions to yield advanced insight into the customer, building a unique Customer Satisfaction Index (CSI) for each customer.

CSI on Aster Step 1: Flexible, Rapid Data Collection, and Integration

How does Aster turn this theory into mechanics? The first step is data sourcing and transformation. The difference? With Aster we source and transform data in a highly advanced way. And most importantly, these steps are rapid.

All customer touch-point data—both traditional transactional data from an Integrated Data Warehouse (think rows and columns) and non-traditional and emerging data structures (think of data that is not designed to fit into rows and columns)—are sourced and transformed into events and interactions to describe the everyday journey of a customer. This is one of the fundamentals of customer sentiment analysis—the ability

to integrate and store data that can reflect behavior and sentiment. Through the transformation and persisting of this data, it becomes an event- and sentiment-driven dynamic data model.



Rapid deployment of advanced analytics in Aster does not require a persisted data model; discovery analytics often promote the use of temporary tables and data structures. However, to study multiple aspects of the customer’s journey and interaction, a persisted data model is necessary. Further, in order to ensure this persisted data model reflects everyday operations of customers’ engagements, a comprehensive data discovery engagement with heavy emphasis on business uses is recommended. This extends past traditional data model exercises and incorporates a data schema which closely reflects a thorough understanding of the customer’s journey.

This persisted data schema will support the rapid analytical functions of Aster that will ultimately serve as the building blocks for a CSI score.

CSI on Aster Step 2: Analytical Methodology

Once business rules have been established in a data model for Aster, its analytical functions can be applied to conduct behavior and event sequence analysis, as well as sentiment analysis gained from direct customer interactions. These insights then come together to provide one indicator on the customer’s overall experience.

Let’s continue to build on our example of multi-channel touch points for issue resolution in telecommunications. Another event could be driven off of CRM campaign offers and responses. An instance of customer behavior could be the usage of data on customers’ smart phones. Aster can incorporate graph capabilities for social network analysis to determine influencers of highly satisfied customers (and highly dissatisfied customers) based on calling patterns.

Layering in several aspects of behavior and events, we can start to paint the picture of a customer’s interactions with the company in real time. By leveraging existing data and performing analysis in the Aster analytics accelerator, this process can be completed in days, or in some cases hours, with the appropriate subject matter experts. Users can quickly gain visibility into customer sentiment for immediate action.

The other key category of measurement is sentiment analysis. This leverages Aster’s suite of sentiment analysis functions on text or voice-to-text data. The ability to incorporate direct feedback from a customer allows issues to be flagged and addressed across the enterprise, leading to lower incidences of dissatisfaction and attrition.

After data sourcing and modeling, Aster’s analytics use the persisted data to operationalize the insights. At this point, organizations determine which analytics are included in the overall customer profile. In fact, the number and types of analyses will vary from company to company, or even among organizations within an enterprise. Specific treatments of these analyses (for example, weighting with thresholds for variation) will also take place. The eventual result will be the tailored barometer of the customer’s experience and satisfaction—the Customer Satisfaction Index.

CSI on Aster Step 3: Deployment

After Aster’s Customer Journey Analytics are applied, the Aster platform’s AppCenter technology enables the scoring so your new business objectives can be accomplished—not only by data scientists but also by business analysts.

The Aster AppCenter allows a business user to modify parameters for specific customer events within an easy-to-navigate, web-based user interface. The user can run or schedule the analysis via the AppCenter, then explore high-level results from several pre-packaged visualizations. Alternatively, AppCenter can integrate with third-party business intelligence tools for more detailed analysis. It also has the ability to integrate with marketing and customer interaction systems to build marketing campaigns or customer support rules based on the results of the analysis.

How to Operationalize CSI in Your Company

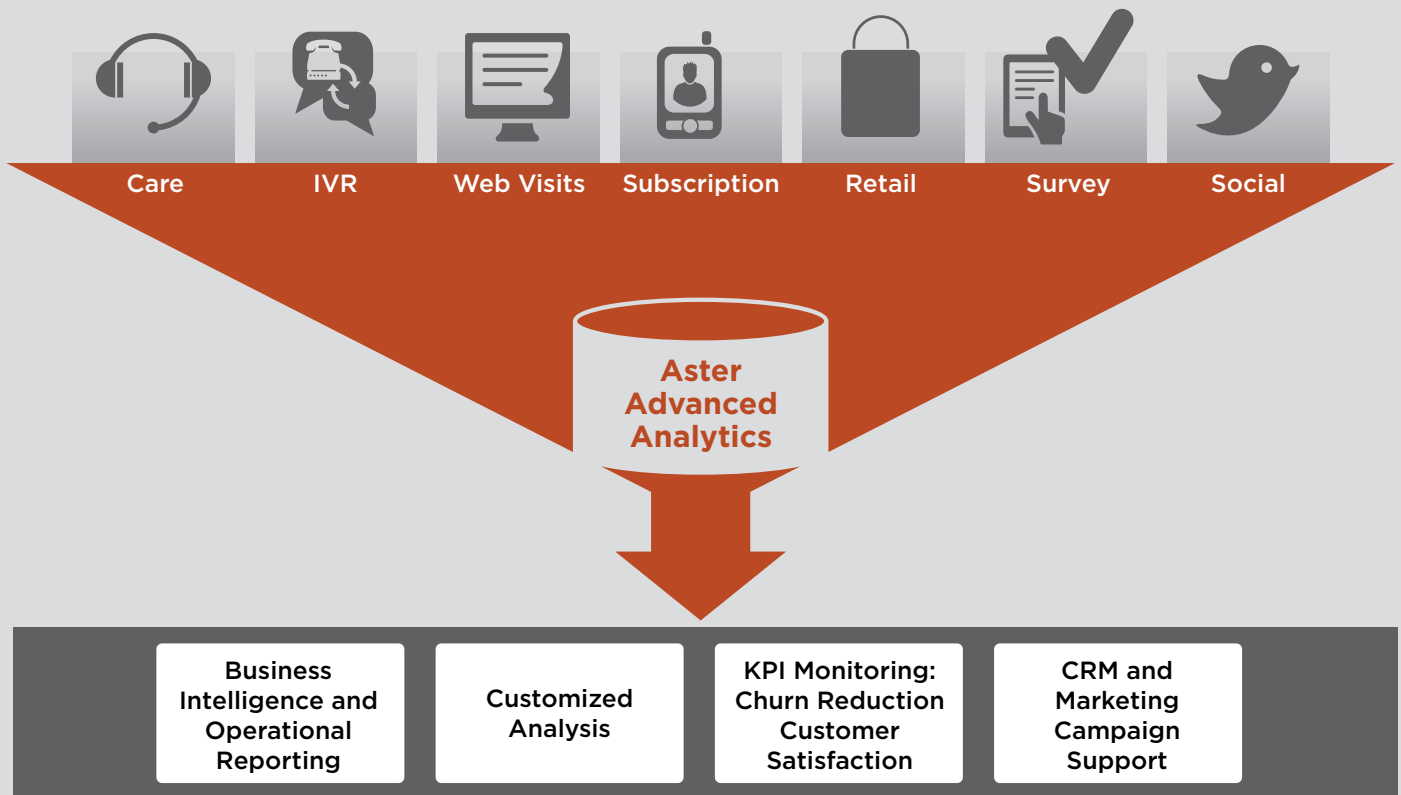
Applying CSI in Customer Lifecycle management (often considered the lead part of CRM and campaign management) is typically the top priority; however, with cross-channel analytics and insight, opportunities to implement operational improvements also present

The ability to incorporate direct feedback from a customer allows issues to be flagged and addressed across the enterprise, leading to lower incidences of dissatisfaction and attrition.

themselves. Not only do companies have the ability to save customers through standard methods and procedures designed within their churn management and campaign schedule, they also have a new view into channel operational touch points of the customers.

Each event in the CSI analytical review can be used to set triggers that help engage with a customer. Keeping with our telecommunications example, we may have a scoring rule that detracts from a customer's score if the customer is passed to more than two representatives during a single support call. In this case, a business rule can be created where a customer

High-Level Workflow of Customer Satisfaction Index



loyalty representative is prompted to follow up with the customer, apologize for the hassle, and issue a small credit to the account. The negative cycle is interrupted, and a new event may be triggered to add points back to the customer's score.

Benefits of Teradata Aster CSI

The Teradata Aster CSI solution is integral to Customer Journey Analytics and essential for companies looking to prevent churn and improve loyalty. This dynamic approach can be run daily—or more frequently—to get an accurate picture of customer satisfaction in real-time, across all touch points.

Common data sources include customer's web activities, call center notes, and product or service usage metrics. Rules can cross channels to spot complex paths. The solution provides both aggregate and granular results, making it easy to spot areas for operational improvement.

Your entire organization can take advantage of the solution. No programming knowledge is required, so business users can build their own rules or sets of rules and execute and explore scores. The solution is part of the Teradata Aster AppCenter, and the solution integrates with business intelligence, marketing applications, and CRM systems.

About the Authors

Joining Teradata in 2012, **Charles Fournier** brings over 19 years of experience in the Telecommunications, Cable, Satellite, and Digital Media & Commerce industries, executing BI and market research solutions. As a Senior Industry Consultant, he has led strategic business intelligence programs, which include developing and implementing geo-spatial advanced analytics and system-of-record reporting infrastructures for sales, compensation, inventory, and finance. Charles Fournier is a native of Louisiana and currently resides in New Orleans. He attended LSU, where he earned a BA and MA through the College of Humanities and Social Sciences.

With nearly 10 years of experience in big data analytics, **Ryan Garrett** has worked on many analytics initiatives with a focus on customer acquisition and retention. His role as a Senior Business Development Manager has allowed him to leverage this expertise with the Teradata Aster Center of Innovation (COI) team, where he is responsible for the delivery of analytics applications that address real world use

10000 Innovation Drive, Dayton, OH 45342 Teradata.com/financialservices

Teradata and the Teradata logo are registered trademarks of Teradata Corporation and/or its affiliates in the U.S. and worldwide. Teradata continually improves products as new technologies and components become available. Teradata, therefore, reserves the right to change specifications without prior notice. All features, functions and operations described herein may not be marketed in all parts of the world. Consult your Teradata representative or Teradata.com for more information.

Copyright © 2015 by Teradata Corporation All Rights Reserved. Produced in U.S.A.

12.15 EB9216



TERADATA