Actionable Business Intelligence
Fusion of Internal and External Data for Empirical Guidance

With the explosion of information technology in the Digital Age, customer needs and expectations are evolving beyond the reach of conventional market wisdom. What can we do when ad-hoc surveys are simply not able to produce enough information?

While current data directly secured from customers provide an irreplaceable foundation for sound business decisions, respondents cannot be burdened by lengthy and arduous surveys to collect all the needed information. On the other hand, with the proliferation of ancillary data about consumers from various commercial sources, it is now possible to supplement existing customer databases with a variety of external data. Such data includes granular geodemographics, socioeconomic characteristics, as well as various attitudinal and behavioral indicators that can add invaluable nuances to what surveys or administrative records can render.

How is this possible? By employing data fusion and advanced analytics

By relying on fusing existing data and those from various external sources and employing the latest analytical techniques, industry-respected data scientists at Marketing Systems Group (MSG) can produce a rich empirical foundation upon which actionable intelligence could be generated for your business. It is this unique marriage – data fusion and advanced analytics – that can elevate the inferential capabilities of your available data beyond simple statistics that can only support basic business decisions.

To illustrate how enhanced data can help clients understand their customers and expand their turf, let's look at a case study.

Client Case
A client who delivers farm-fresh fruits and vegetables that would otherwise go to waste approached us for help. This client wanted to learn more about their current customers in order to grow their business and expand into new markets, however, they had insufficient data about their customers to answers questions such as:

1. What are the key characteristics of profitable customers across multiple markets?

2. What characteristics differentiate loyal customers from the rest?

3. Which geo-demographic segments include higher concentrations of loyal customers?

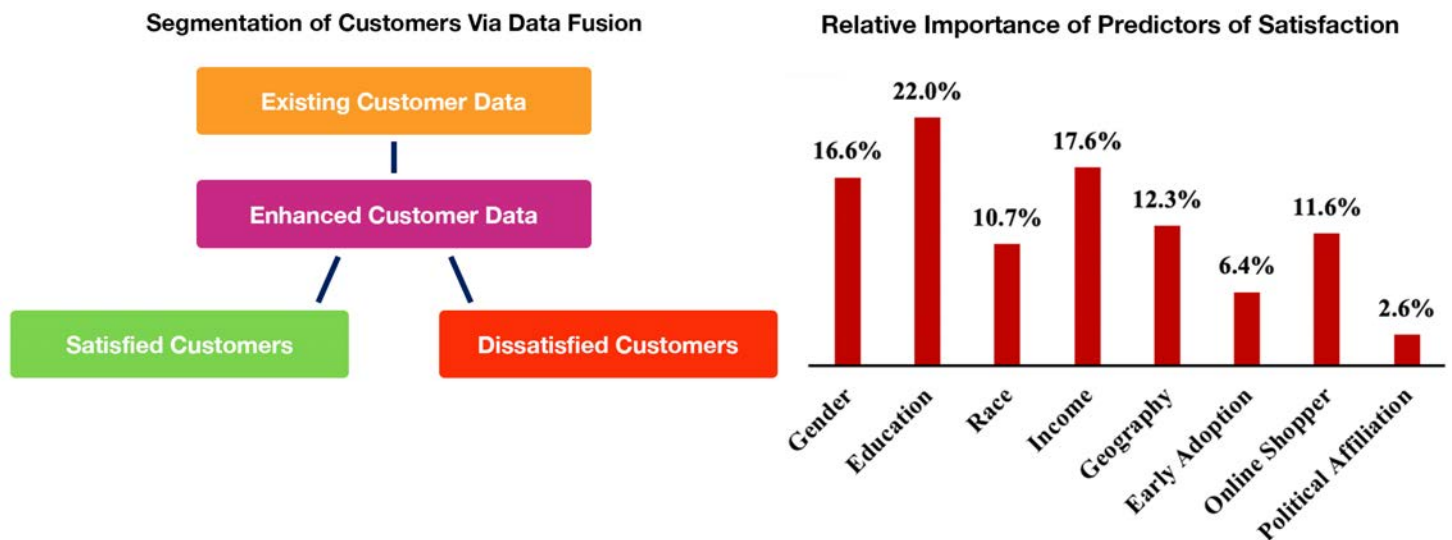4. How can loyal customers be located in new markets?

Where are the current markets and customers?
To start, for each existing market we created maps that could visualize the locations of all current customers.

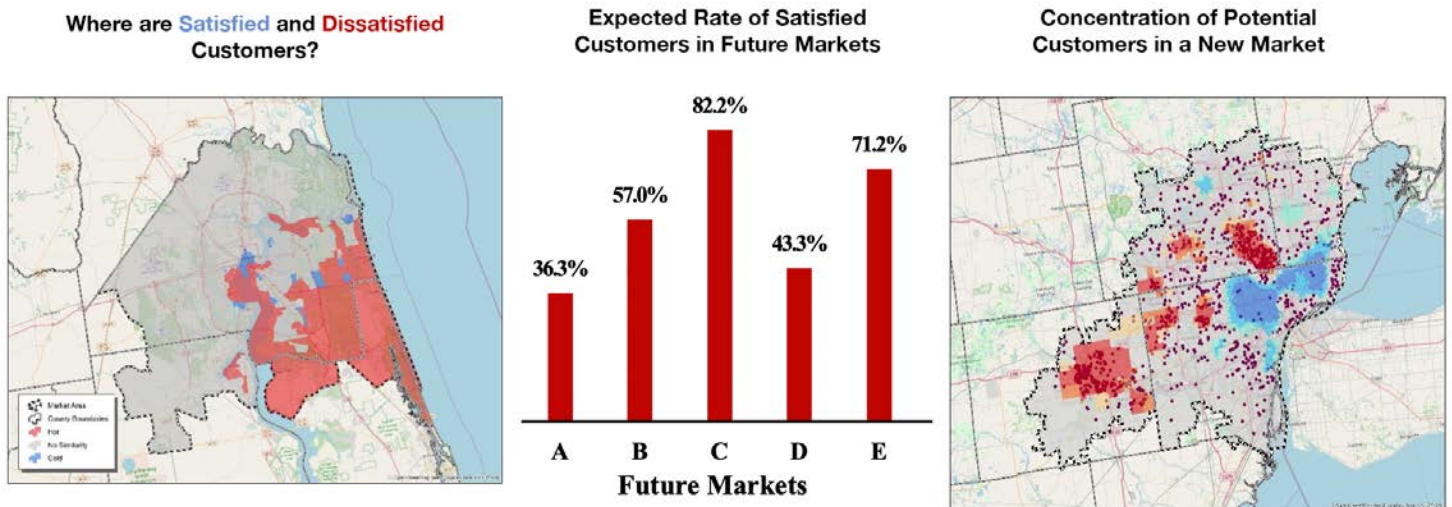Current Geography   Current Customers
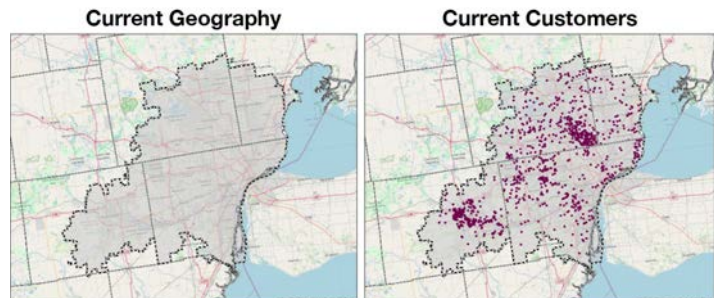
What characteristics differentiate satisfied customers from the rest?

We appended a wide array of person and household-level geodemographic indicators to each customer record and then applied various classification and regression processes to identify key predictors of satisfied customers.

Segmentation of Customers Via Data Fusion

Existing Customer Data

Enhanced Customer Data

Satisfied Customers   **Dissatisfied Customers**

Relative Importance of Predictors of Satisfaction

Predictor	Value
Gender	16.6%
Education	22.0%
Race	10.7%
Income	17.6%
Geography	12.3%
Early Adoption	6.4%
Online Shopper	11.6%
Political Affiliation	2.6%

How can future markets with higher concentrations of loyal customers be located?

With the information derived from the above, a series of spatial and cluster analyses were carried out to identify geographic areas in new markets that were similar to those in existing markets.

Where are Satisfied and Dissatisfied Customers?

Expected Rate of Satisfied Customers in Future Markets

Future Market	Value
A	36.3%
B	57.0%
C	82.2%
D	43.3%
E	71.2%

Concentration of Potential Customers in a New Market

Understanding more about your customers - such as who they are demographically, the neighborhoods where they live, their needs and motives - better equips you with information that can be used to intelligently expand your customer base. To remain competitive today, businesses need the best possible information available. Filling in missing gaps helps gain more awareness of customers and their behaviors. The result is building a greater foundation from which to market your products and services.

To learn more about how enhancing data can help your business needs, contact a Marketing Systems Group representative today.