



# Segmentation and Data Management

Benefits and Goals for the Marketing Organization

WHITE PAPER

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## Introduction

Over the years, marketers have tried many different techniques to convert recipients into customers. At first, mass marketing seemed to work well, as evidenced by the many department store catalogs that were popular in the 1980s and 1990s. None of the offers in these catalogs were targeted at anyone in particular. Instead, it was up to the consumers to tell companies which products were relevant to them. Fast forward 20 years or so, and we find that the tides have turned. With the emergence of social media, it is now largely the company's responsibility to identify the right offers for recipients and customers. Mass marketing has been transformed into one-to-one marketing and organizations must now market to a "segment of one."

The good news for marketers is that segmentation is more of a science than an art. Segmentation, at its simplest, involves classifying contacts according to variables defined in a database. The goal of segmentation is to give the marketer a way to divide up a campaign in a manner that satisfies at least one of several goals. These goals may include: converting customers, creating brand or product awareness, driving in-store or online sales, cross- and up-selling, and influencing longer-term purchasing behavior. Most campaigns have the ultimate segmentation goal of maximizing ROI. However, other benefits of segmentation include increased conversion rates, customer value/profitability, engagement and positive brand sentiment.

In the marketer's eyes, one single segment is always simplest to manage, and in many cases most desirable, but with the clear need for mass customization – from refrigerators to cell phone plans – having the ability to create multiple segments makes the most sense. Unfortunately, there is no magic answer for the number of segments that a marketer can create. An ideal number of segments might lie somewhere between five and 20, but not all organizations are able to narrow down their recipient lists that effectively. There are, however, some best practices around the different ways to segment.

## Benefits of Segmentation

There are many tools – SAS® Enterprise Miner™, for example – that can help with creating segments and clusters. Clustering is a technique that aids effective customer segmentation. Clusters can be thought of as natural groups or subclasses. Although clusters can be analytically derived using tools such as SAS Enterprise Miner, they are not predetermined and are defined when algorithms run on the database. Segments, on the other hand, are determined by the business user and can vary in number, based on what works for the marketer or business user. An ideal number of segments ultimately depends on what makes the most sense for a particular campaign or marketing plan, but it often varies between five and 20 segments. Any more than 20 often becomes a bit cumbersome to work with.

Once segments are created, they are often fed into marketing campaigns focused on customer acquisition, retention, or cross- and up-sell opportunities. Segments help determine initial and next best offers per segment, the appropriate channels for sending these offers (direct mail, email, call center, SMS/mobile, etc.) and even the most appropriate creative assets to use to attain the goal of the campaign.

An example of a segment is “online high-tech gadget shoppers.” To create this segment, purchase and behavioral history are combined, revealing that the people who make up this segment not only shop online frequently, but they also like to purchase the latest high-tech gadgets and enjoy discussing them on online blogs and forums. A direct mail offer for an older refurbished mobile phone would clearly not be appropriate here. Several aspects of the segment can be combined to form a customer profile, which can then be used by other departments within an organization. You can read more about profiling in the section below.

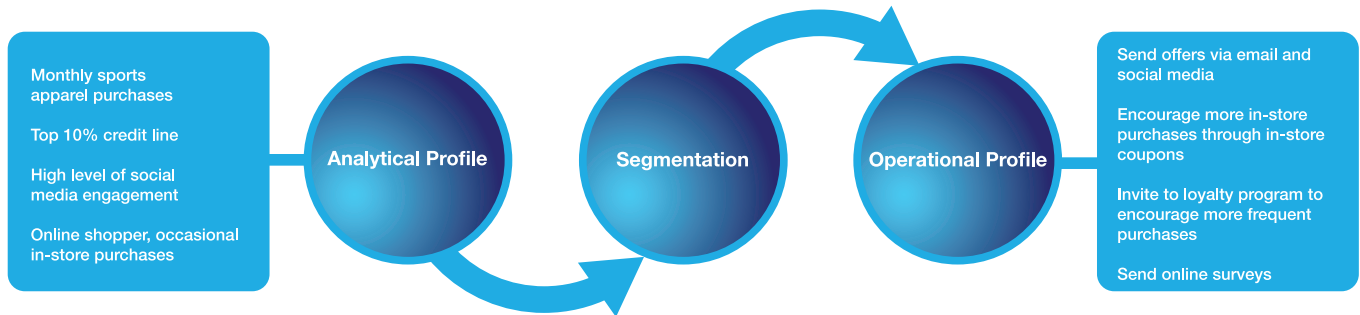
## Types of Segmentation

Segmentation can be done in many ways, but strategic segmentation generally has a much higher success rate compared to simply generating lists of recipients with similar characteristics or attributes. Simple list generation often groups recipients into buckets based on static data and commonalities; it does not involve algorithms, scoring or dynamic event-based information. Strategic segmentation can be done by behavior or even customer profitability; it typically involves profiling, predictive modeling, customer state changes or vectors, event-driven triggers, and real-time decisioning.

### Profiling

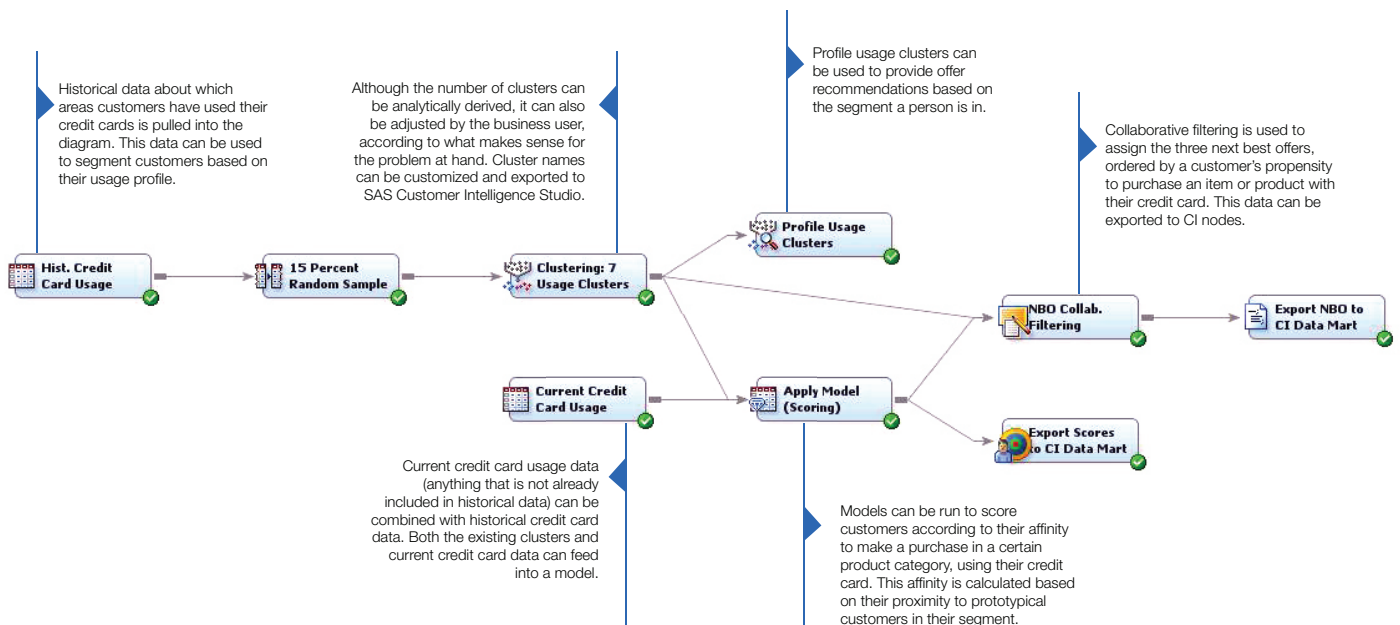
Successful customer profiling consists of including both the behavioral as well as demographic attributes of your recipients. Behavioral aspects include metrics such as responses to campaigns, preferred communication channels and online characteristics, including usage of social media, online engagement, and likelihood or propensity to use blogs or forums. Demographic attributes are the ones you most likely already use when trying to segment: age, income, gender, education, location, etc. It is crucial that behavioral metrics be collected so that the recipient profile is as dynamic and accurate as possible. SAS offers several ways to collect behavioral information – from responses and follow-up purchasing behavior as a result of targeted campaigns, to measuring exact mouse clicks to determine the way a prospect or customer is most likely to navigate a site.

Profiling can be thought of in terms of analytical as well as operational profiling. Analytical profiling is the customer-centric view based on customer activities that may change over time (purchases, subscriptions, referrals, returns, complaints, responses, etc.) along with demographic data about the customer. Analytical profiling feeds into the segmentation process, ideally creating an operational profile of the customer. This profile is essentially the instruction manual for how customers should be treated in the future, considering all different customer touch points along with their analytical profile.



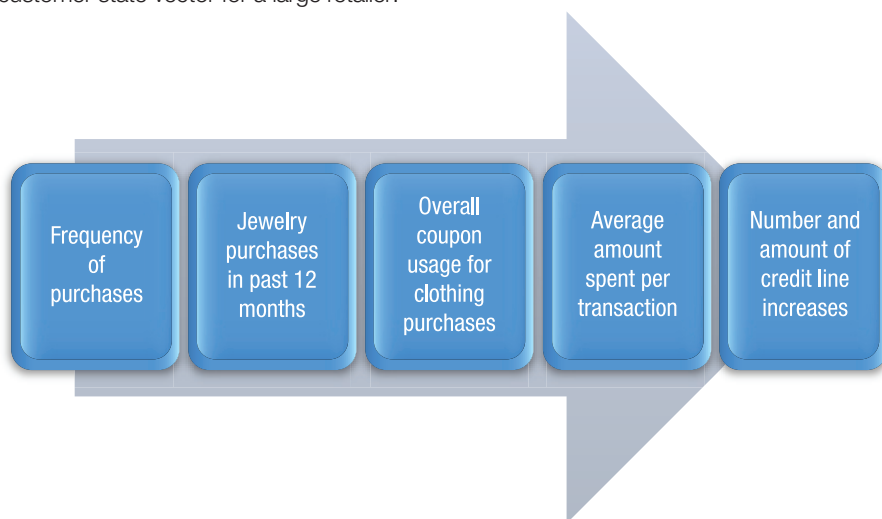
## Predictive Modeling

Creating predictive models is another method of segmentation that consists of several layers of data that are all interconnected. Variables that can aid in predicting an outcome are collected, and a statistical model is formulated. Common applications of predictive modeling include capacity planning, next best offer(s), security management and financial predictions. An example of a model that helps to predict the next three best offers in SAS Enterprise Miner is provided below. This model collects historical credit card usage data as well as current credit card usage data to form segments. It then predicts the three next best offers for each segment, based on the customer's affinity to make future purchases:



## Customer State Vector

A customer state vector acts as a central repository for time-based and “customer state” data. This approach to customer-centric data storage gathers data from various systems and stores the entirety of a person’s current interactions with the organization based on integrated, real-time information across all departments and divisions. The main benefit of a customer state vector is that it leaves all operational systems that it pulls data from untouched, so that siloed data can be brought together in one central repository – the customer state vector. Data from different departments or products can be brought together in unique ways, and models can be created and used as effective segmentation tools. The actual data that is stored depends on the application and the models that are built. Here’s an example of just a few variables that could be part of a customer state vector for a large retailer:



## Event-Driven Marketing

Triggers or alerts make up the core of event-driven marketing by signaling the transition of one behavioral state to another. What this essentially means is that two types of transitions can be detected: blatant and latent events.

Characteristics of blatant events:

- Events that are easy to detect by many transactional systems and detection engines.
- One-time transactional events or anomalies.
- Certain life-stage events.

Characteristics of latent events:

- Events that require a more sophisticated detection engine.
- Trend-based events that happen over time.
- Forward- or backward-looking events.

Event-driven marketing covers many types of events that can lead to some type of action, such as a follow-up communication, planned promotion or offer based on a certain trigger, or penalties and investigations. The types of events typically include customer, product, account, marketing, risk and fraud triggers.

Here are some examples of customer triggers that can be flagged and acted upon by a financial services organization:

- |                                      |  |
|--------------------------------------|--|
| • New customer.                      | • Increased use in telephone banking.              |
| • Customer birthday.                 | • Decreased use in telephone banking.              |
| • Customer retirement.               | • Increased use in online banking.                 |
| • Customer retirement anniversary.   | • Decreased use in online banking.                 |
| • Marital status change.             | • Product information inquiry.                     |
| • Birth of child.                    | • Manager complaint.                               |
| • Change of address.                 | • Step change in credit risk.                      |
| • Change of home branch.             | • Step change in customer value/<br>profitability. |
| • Change in relationship to banker.  | • Step change in retention risk.                   |
| • Relationship type change.          | • Accelerating increase in credit risk.            |
| • Customer segment change.           | • Accelerating change in<br>customer value.        |
| • Registration or telephone banking. | • Accelerating increase in<br>retention risk.      |
| • Registration or online banking.    |  |
| • First use of telephone banking.    |  |
| • First use of online banking.       |  |

## Real-Time Decisioning

In the past, meaningful real-time decisions and offers were difficult to make since customer service representatives were not empowered to make them based on inbound marketing events and communications. Today, SAS offers a way to deliver those decisions to multiple touch channels, all through a single system. Real-time decisions focus on historical, demographic, behavioral and real-time data about a customer and can be determined by combining all these factors with data that resides in other systems, via Web services. In that sense, real-time decisioning is similar to a customer state vector, but it allows for more coordinated and streamlined communications across all channels, all in real time. This becomes especially meaningful when a call center representative is able to communicate the most relevant offer to a customer on the phone or a prospect browsing the Web is presented with the right type of insurance for her immediate needs.

## Data and Offer Management

At the core of powerful and effective segmentation lies proper data management. Although data management is a subject that can cover many different areas, being able to distinguish and properly collect both behavioral and attitudinal data is necessary for providing the best and most complete customer experience. Behavioral data is data that is event-driven. It is data that paints a picture of what a customer does and buys, how the customer purchases and interacts with the organization, and where each event takes place. What it does not answer, however, is the why. Attitudinal data focuses on how the customer feels about a purchase or event. It's data that is generally collected via surveys; found on forums, blogs, social media sites and networks; and compiled from marketing programs and offers, call center representatives, and email. SAS provides many ways to collect and quickly analyze millions of data points to determine sentiment for an overall brand, organization, topic – or even the individual. The ability to combine this data with behavioral data is the ultimate key to understanding how to segment and, therefore, how to communicate with and sell to a customer. Proper data management can also directly affect offer management. Repeated offers when a customer has already purchased a product, or irrelevant and untimely offers all contribute to customer purchasing fatigue. They can be avoided by effectively tracking and sending out offers using a solution such as SAS Marketing Automation.

## Segmentation in Action

All the techniques discussed in this paper sound very useful, but may seem a bit complex in theory. They are actually quite attainable when the right SAS solutions are in place. Verizon provides an excellent example of how to segment successfully. The company used analytics solutions from SAS to home in on its medium business area and achieve strong growth. In addition, SAS enabled Verizon to:

- Produce a 360-degree view of customers in less than three months.
- Improve campaign close rates (sales) by more than 250 percent.
- Achieve a 25 percent revenue lift over nontargeted campaigns.
- Identify a targeted list in one week instead of three.
- Greatly improve campaign accuracy.
- Reduce campaign preparation and implementation time from three months to just one.

Being able to analyze each microsegment and customer base in real time only adds to the huge list of benefits and makes Verizon much more adaptable and flexible. More details about its success can be read here: [sas.com/success/verizon.html](https://sas.com/success/verizon.html).



## Conclusion

In summary, proper segmentation takes some practice, but with the right SAS solutions in place, it becomes quite simple to organize millions of customer data points into segments that make sense and can be fed into a marketing campaign. The segmentation techniques of profiling, predictive modeling, customer state vector, event-driven marketing and real-time decisioning can all be used toward the overarching goal of maximizing ROI for the organization and elevating the customer experience. For most organizations, this is the ultimate win-win and well worth the effort.

## Learn More

- For more details about SAS Customer Intelligence solutions:  
[sas.com/software/customer-intelligence](https://sas.com/software/customer-intelligence)
- To read more thought leader views on marketing, visit the Customer Intelligence Knowledge Exchange:  
[sas.com/knowledge-exchange/customer-intelligence](https://sas.com/knowledge-exchange/customer-intelligence)
- To get fresh perspectives on customer analytics from marketing practitioners writing on the Customer Analytics blog:  
[blogs.sas.com/content/customeranalytics](https://blogs.sas.com/content/customeranalytics)

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