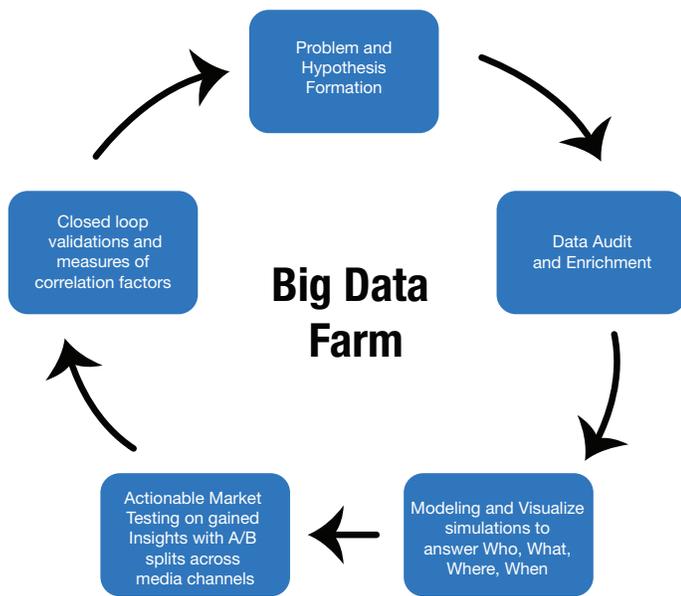


Iterative Full-Circle Method



Step 1: Plan and Identify Objectives. – The Hypothesis

Before the data scientist can be effective, corporate objectives need to be articulated to create a solid plan that is technically, economically and functionally feasible. Ideally we are able to take information from prior campaigns to use as the control group for an optimization cycle.

Typical corporate marketing objectives usually start with high value objectives like “reduce customer churn” (to retain current customers since new customer acquisition can be much more costly) . Other high value objectives include cross-selling and upsell into higher value products. Another required marketing objective is the acquisition of new customers that are most like our best, most profitable, clients.

Once the objectives have been set we follow on initiatives to isolate offer or pricing points that can be modeled to fit specific prospects with similar attributes.

Step 2 - Data Audit

Our first point during the data audit is to make sure we know what data is at hand (or within reach thru third party enrichment). Typically a data audit will assess the known customer transaction data and include information that can be collected on revenue, date of purchase, product, source of lead, and frequency of purchase. Location data is now increasingly being used to isolate origin and destination of likely customers especially in transit, travel, or hotel gaming venues

By tracking every relevant transaction with each customer and prospect from inquiries to purchases, you are building a foundation

of knowledge for your marketing strategy. Data is not tracked just for the sake of tracking it; it should be relevant to your current marketing objectives. It of course goes without saying that the more recent the customer data, the better.

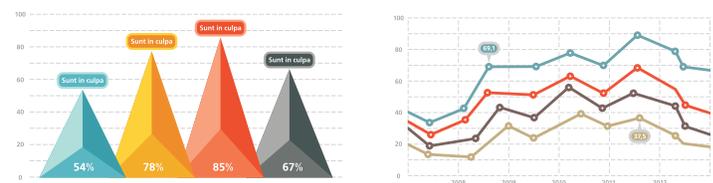
After doing an inventory of your available data, one of the best ways to augment your big data strategy is thru data enrichment and “Data Blending”. The ability to add additional classes of data like demographics (age, income, presence of children), lifestyle behaviors, social influence, mail responder index, or append email and phone, can empower your multi-channel strategy and allow finer slices for variable execution.

Many data service providers offer bundles of data for appending and enriching your house list. It has generally been found that by enhancing a data set with up to 20 of the most impactful data points will give maximum utility to your market analysis.

Step 3: Model the Data –Research and drill in.

In this step we segment and differentiate through detailed modeling and analysis of the customer marketing database. There are many tools available to help segment, profile, and predict future marketing activity. Typical research and statistical tools include regression, chaid, and cluster analysis. For extremely large data sets, new “in-memory” statistical tools allow for fast evaluation and scoring. The role of the data artisan is critical to add value and known context around the gold nuggets pulled from the mining efforts.

Dashboards Below, represent types of visualizations available in customized “what if” formats and can look at all or part of your data over time.



The research process can yield performance insight to allow further optimization in promotional efforts by campaign or by channel. Once the data artisan has isolated an area of interest for further drill down, that data set and report can be saved for future use or exported to your print or email service for execution of additional campaign tests.

Step 4: Actionable Testing

Testing your marketing hypothesis in a live market is paramount to determining if your research has yielded results. A/B split tests are opportunities to evaluate the math and resulting algorithms in a controlled environment so you can understand what went right or wrong and determine what correlations are in play. Testing should be done in a controlled environment so as to not mix bias from any creative or offer variations that might skew results.

Step 5: Validate Recalibrate, and start over to Optimize the Outcome desired!

Testing and validation go hand in hand. For example, the results of a test could indicate a particular segment is performing as predicted; this segment is then said to have been validated. Likewise, if a test segment's performance is marginal or unproductive, the segment should be recalibrated and retested. Because of the cumulative nature of results, the validation process permits evaluation and refinement of your target.

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Revenue Optimization

