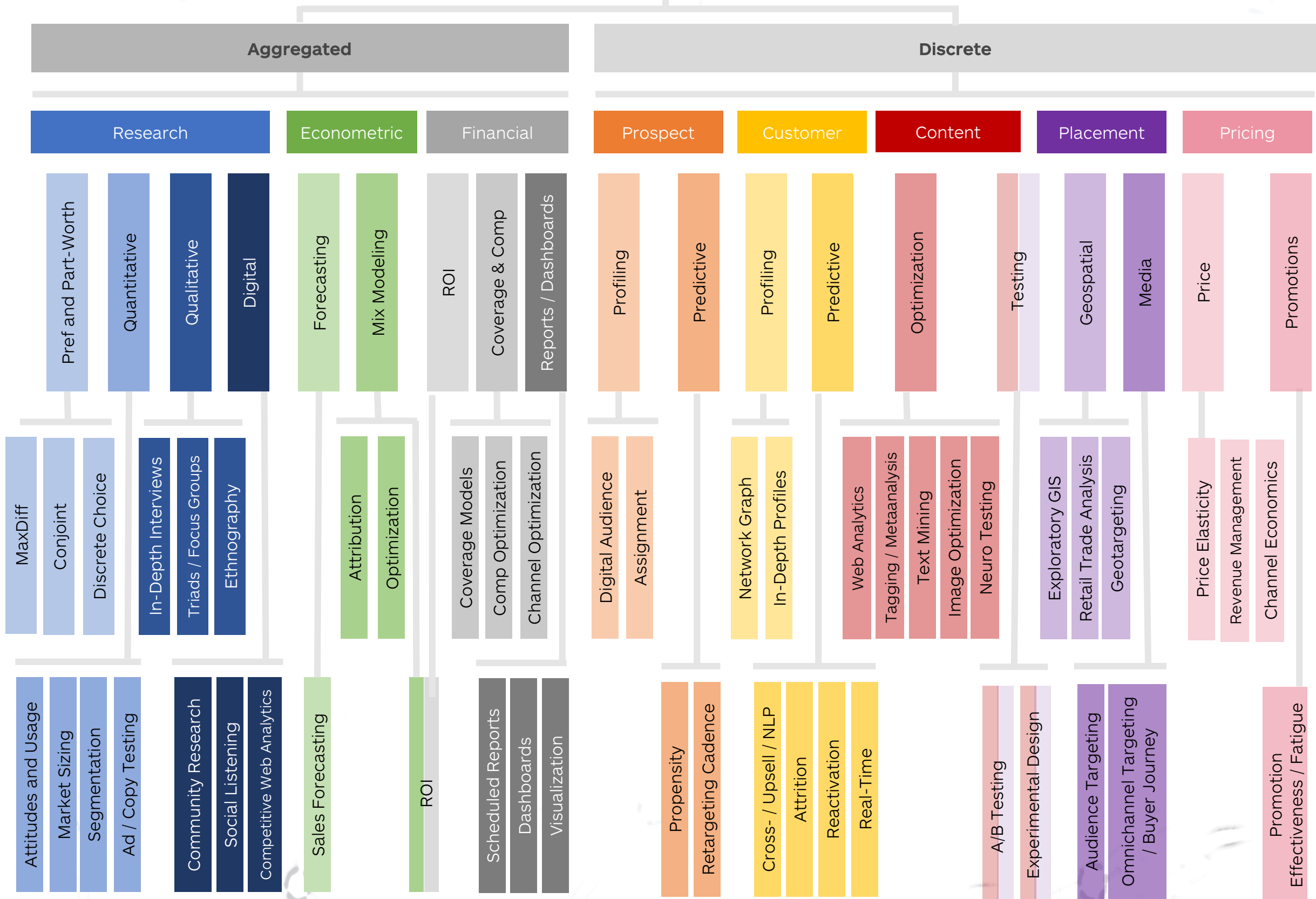


# MARKETING ANALYTICS

## family tree



Aggregated	
Research	
Preference and Part-Worths	
MaxDiff	A simpler way to assess preference than conjoint, respondents are asked for their “best” and “worst” options from a list of items. Scale bias isn’t a problem as there are no utility points or price points are used to assess value.
Conjoint	Respondents pick the best option from a group of “cards”, with metadata attributes either stated or implicit; regression then determines the value of underlying attributes.
Discrete Choice	Used in conjunction with conjoint, discrete modeling is used to predict the decision an individual will make based on their attributes and the options available to them. At larger scale, they can be used to forecast product adoption or share.
Quantitative	
Attitudes and Usage	Classical 10-15 minute survey to understand consumer or buyer attitudes towards a product or product family and their usage of that product. Typically utilizes scale questions and categorical analysis, for example <a href="#">cross-tabs</a> and <a href="#">top-two-box</a> .
Market Sizing	Typically using <a href="#">probability-based sampling</a> to ensure an accurate representation of the population, market sizing studies focus on usage across a set of defined dimensions, for example industry and firm size (B2B) or DMA, household size, ethnicity, and income bracket (B2C).
Segmentation	Ubiquitous in B2C marketing but less common in B2B, segmentation studies typically ask a probability-based sample of respondents between 30 and 100 questions related to the hypothetical dimensions that matter for that sector. Clustering algorithms (LCA, PCA, etc.) are then used to divide the respondents into like segments. This however, suffers from chicken-and-egg problem; the questions largely define the scope of the segments emerging, making instrument development critical. Another challenge is <a href="#">actionability</a> —segmentations can be perfect but then cannot be applied to actual business needs like targeting.
Ad / Copy Testing	A wide family of techniques can be used to test ads or copy, including qualitative (focus groups), but quantitative methods rely on benchmarked scales used over decades by firms like <a href="#">Millward Brown</a> . More advanced techniques use neurological measurement to determine latent, emotional responses to advertising.
Qualitative	
In-Depth Interviews	30- to 90-minute interviews with single subjects following a discussion guide, but focused on driving insights. Can be done telephonically, via video, or in-person. As will all qualitative research, the value is heavily dependent on who is recruited and the moderator herself.
Triads / Focus Groups	Triads involve three people; focus groups typically involve 6-10 people. Group dynamics have advantages and disadvantages. <a href="#">Group-think</a> can take over, or one dominant personality can intimidate other panelists. On the plus side, ideas form more quickly, and a talented moderator can drive the group to productive insights based on these offshoots.
Ethnography	Some think ethnography just means “qual interviews in the home or office”, but it is actually far more observational. The talented ethnographer will stay back in the shadows, only interjecting when he wants to see something new. Observation drives to the latent insights that people are not aware that they have.
Digital	
Community Research	Online communities, popularized by vendors like <a href="#">Communispace</a> , typically recruit heavy users / brand advocates (B2C) or specific user types (B2B, for example CTOs, MDs, etc.) to be a part of an online community, formed around a portal or email list. These users are then asked to participate in research activities, either individually or in a group. These communities can suffer from bias, as heavy users tend to drive opinion and can be professional survey takers, but they have the advantage of longitudinal tracking of community members and fast-answer research.
Social Listening	Scraping of media sites and API access to social media provides a powerful data firehose—the challenge is sifting it and getting to actual insights. Online sources are also vulnerable to manipulation and fake posts. That being said, listening can provide “true” latent insight without prompting, and surface trends that researchers didn’t even think to ask about. MarketBridge’s <a href="#">DigitalPulse</a> product uses digital listening as a primary input.
Competitive Web Analytics	While not as specific or granular as the owned analytics platform a company might use for their own webspace, vendors like SimilarWeb do provide analytics to nearly all recognizable sites with information such as monthly traffic as well as a breakdown of sources, referrals and keyword drivers which can be used (often in pairing with Social Listening) to determine monthly trends, campaigns and user pathways.
Econometric	
Forecasting	
Sales Forecasting	Using time-series analysis to decompose sales trends (or opportunities, or leads, or web traffic) into seasonal, trend, independent variable(s), and error terms. Forecasting into the future can be adjusted based on various scenarios for independent scenarios.
Mix Modeling	
Attribution	Using <a href="#">econometric time series modeling</a> (regression through time, typically weekly) to break out the impacts or part-worths of various media on sales and in-process metrics. More advanced techniques can model the impact of advertising on the latent concept of brand equity.
Optimization	Flipping attribution on its head, optimization uses the calculated impacts of various media and direct channels—and the calculated relationship of stimulus and response to optimize for an outcome variable, like sales or marketing ROI. Typically, optimization models allow marketers to do “what-if” analysis to understand the sensitivity of an outcome variable to various levels of investment across channels.
ROI	Combining attribution—econometric or direct—with calculated financial investments, ROI models assess profitability at the campaign, channel, segment, or aggregate level. ROI models are typically used to make go / no-go decisions on investments, thus understanding confidence in the estimates (the error in the inferred model) is critical, and often misunderstood or miscommunicated.
Financial	
Coverage and Compensation	
Coverage Models	Models that are typically deployed in B2B industries matching buyer types with channels, with the overall market size, share, and economics calculated for each cell. For example, in the tractor industry, industrial farms between \$10M and \$100M are covered by distributors; \$>100M are covered direct, etc. These are used for both economic modeling and “playbooks” for sales and marketing executives.
Compensation Optimization	Sales compensation optimization adjusts base and incentive structures for salespeople to optimize performance, typically based on a combination of economic theory and benchmarks. The output is a set of compensation structures that can be clearly communicated to reps by managers.
Prospect	
Propensity	Maybe the most common marketing model is likelihood to buy, click, like, convert, etc.—the basic “1/0” binary model based on as much signal as we can gain. This allows marketers and sellers to prioritize their efforts on only the fish most likely to bite. The challenge is that these models can become self-reinforcing if all effort is focused on the same prospects over and over again—making them, in turn, the most likely to buy.
Retargeting Cadence	Retargeting has been shown again and again to be the most effective way to drive a sale. Chaining together the right cadence—whether via web browser, text message, email, or direct mail—is critical to maximize likelihood to convert while avoiding fatigue and annoyance.
Customer	
Profiling	
Network Graph	A “graph” in a company is really just the org chart on steroids. It’s critical to understanding how a message will travel through an organization—and to do this, it helps to understand how individuals are connected. LinkedIn holds the keys to this data kingdom today, so a lot of this is manual work, but it is very rewarding, particularly at the 1:1 touch level.
In-Depth Profiles	Deep research and insights about specific buying archetypes, similar to a segmentation exercise, but more focused on the needs and wants of a specific individual. Syndicated research firms (e.g. Gartner) have traditionally been a good starting point for understanding these archetypes.
Predictive	
Cross- / Up-sell / NLP	Customer growth, share growth, wallet growth, account expansion—all of these strategic goals beg the same question; how do I get a given customer to buy more, or buy something new? <a href="#">Cross-sell models</a> use data about the current installed base, and then compare these with data on other accounts that have upgraded. These are a close cousin to market basket models on the consumer side, analyzing how customers’ “baskets” of products typically evolve as new items are added. A simple example is Amazon’s “customers also purchase…” widget.
Reactivation	Reactivating lost customers is an art in and of itself, from “when is the right time to reach out” to offer and channel selection. Data collection can be a challenge here, as “loss cohorts” must be defined in the customer database.
Real-Time	Real-time decision making is the holy grail to digital marketing. For marketing analysts / data scientists, models must be prototyped in a simulated real-time environment, and then deployed quickly to production to see the actual effect. Because models are usually developed in purpose-built data science languages like Python or R, a developer must usually convert these models into faster “production” code where milliseconds matter.
Content	
Optimization	
Web Analytics	Web analytics, popularized by free platforms like Google Analytics, tracks users through a website, whether public or walled, ecommerce or content, to optimize metrics like loyalty, time on page, click-through rate, conversion rate, and bounce rate.
Tagging / Meta-analysis	Tagging a content library for various parameters that are hypothesized to matter is grunt work, but it makes it possible to create models for what content works in specific audience / product / buying cycle intersections. The categories and tags can vary industry to industry, but a taxonomy typically includes dimensions like topic, use case, sentiment, format, length, and complexity.
Text Mining	Pulling apart content into a <a href="#">text corpus</a> —and potentially going a step further and using voice recognition to convert audio into text—allows the analyst to create a <a href="#">term-document matrix</a> that can be used as input into machine learning models. Each piece of content can then be turned into a set of features that can be used to predict how well future content will do with a given buyer set.
Image Optimization	Like text, any image is just a matrix—in this case a grid of RGB values. Video is just a set of these. Image and video optimization parameterizes images as input into machine learning models. The data science is similar to that being used to create self-driving cars, but in this case the dependent variable isn’t getting from point A to point B safely, it’s driving engagement, views, or a sale.
Neuro Testing	Mentioned in ad/copy testing under “research”, neuro testing as a family includes galvanic skin response, <a href="#">EEG (electroencephalogram)</a> , and potentially other biometric variables as indicators of engagement or emotional response to specific parts of an advertisement or marketing communication. The advantage is that the content can be adjusted in the creative process without relying on what the consumer “tells you” they like. The downside is that it’s very expensive.
Testing	
A/B Testing	As every direct marketer’s learning method, the A/B test divides marketing into test and control cells, and response is then compared using simple z-tests of proportions to pick a winner. This approach is simple and effective, and given sufficient volume, can be turned into a learning factory for the organization.
Experimental Design	Taking the A/B test further, multi-factor experimental designs can be created to test 3, 4, or 5 dimensions simultaneously, without populating each cell—also called a <a href="#">fractional factorial</a> design. These designs can be calculated efficiently using packages like R’s <a href="#">AlgDesign</a> .
Placement	
Geospatial	
Exploratory GIS	Displaying customer, sales, communication, or distribution locations in a map format is a powerful way to see trends and identify insights. The gold standard proprietary software is ESRI, but open source alternatives like <a href="#">mapview</a> in R and <a href="#">GeoPandas</a> in Python make it possible to do almost any type of geospatial analysis possible.
Retail Trade Analysis	Plotting polygons around the locations of distribution outlets—whether these be stores or restaurants—provides great insight into the makeup of potential consumers and business buyers in the area. A radius can be calculated, or more complex drivetime or walk-time areas can be used. Any data that can be tagged with a latitude or longitude can be used as inputs. The analysis can shine a light into optimal SKU selection, the right marketing mix for a given store, or missing locations.
Geotargeting	Driving marketing touches based on geography is a no-brainer, but the analytics challenges are high. One of the biggest challenges for both B2C and B2B marketers is determining residence vs. commute vs. work locations. The hundreds of ads for a chiropractor in a town I stopped at for McDonald’s three months ago attest to the continued omnipresence of “junk” geospatial targeting.
Media	
Audience Targeting	Effectively targeting an audience with broad-reach media is a modeling exercise that trades off <a href="#">GRPs</a> between the target audience (also called TRPs or targeted ratings points), cost, and audience engagement. The toughest of these to model is the degree of engagement—how much more likely is an audience to pay attention to the ad if its on a site or in a show they love?
Omnichannel Targeting / Buyer Journey	Mapping a buyer’s journey across all of their interactions with your company or brand—from the buyer’s perspective—is the hallmark of great, empathetic marketing. The marketing analytics challenge is creating a single view of the customers and the marketing touches, whether empirically (how our customers have taken the journey) or pro forma (how we want our customers to take the journey, and how we integrate the data to make that happen).
Pricing	
Price	
Price Elasticity	Understanding the <a href="#">relationship between demand and price</a> is the fundamental question of the “Price” component of the good ole’ <a href="#">4 P’s</a> . Optimizing price for total profit is the basic challenge of pricing anything. This gets a lot easier with high-volume products where there is an efficient market at play, but tools like conjoint can be used to simulate the price-demand curve for almost anything that is well known or describable.
Revenue Management	Revenue management is critical in any industry that have a time-base, expiring supply, like hotels or airlines. Price algorithms have gotten extremely sophisticated, as have the games that consumers and businesses play to get the best price. This is a fun challenge for the marketing data scientist that involves real game theory.
Channel Economics	Anything sold through distribution needs to be priced at a level that <a href="#">incent's the distribution partner while still driving operating margin for the manufacturer</a> . Additional channel “value add” components also drive sales but take away from margin. A good channel economics model drives maximum channel throughput while preserving margins for all players.
Promotions	
Promotion Effectiveness / Fatigue	A promotion-based marketing approach is one in which a high base price is established and most volume is driven by promotions / sales. JC Penny famously abandoned this approach for an “every day low price” strategy—and got crushed. The job of the promotion analyst is to understand how promotions and sales interplay with base price to drive maximum volume.

To learn more about MarketBridge’s Customer Analytics Platform visit:

[market-bridge.com/playcaller](https://market-bridge.com/playcaller)