MARKETING OPTIMIZATION - APPLYING QUANTITATIVE MEASUREMENT TO THE FOUR P'S OF MARKETING

MERKLE THOUGHT LEADERSHIP SERIES

MERKLE
A Database Marketing Agency

Executive Summary:

The simple and long-standing concept of the four P's of marketing still rings true today. Ultimately, marketing managers have the levers of price, product, place, and promotion to pull in order to increase sales. In recent years, consumer and technological developments have ratcheted up the level of complexity within each of the four P's. This complexity leads to organizational silos with conflicting strategies, options, and metrics. The framework provided in this paper is intended to help marketers optimize their process to quantitatively make the best decisions - not only within each of the four P's, but also overall by modeling the interactions between the four marketing elements. ■

Figure 1

▶ The Four P's of Marketing

'Marketing mix' was coined by Neil H. Borden when he published the article *The Concept of The Marketing Mix* in 1964. Later, Jerome McCarthy grouped Borden's categories into Price, Product, Place, and Promotion, which are now commonly known as the four P's of marketing. The four P's represent the primary levers a marketing manager can use to improve marketing results. Given the interdependencies between these elements, the four P's are often depicted as the overlapping circles of a Venn diagram to highlight their interactions (see figure 1 above).

A goal in quantitative marketing is to forecast the performance impact of decisions made within the four P's (e.g. an increase in mailings will result in a x% lift for certain customer segments). This requires modeling both the behavior within each circle (pricing decisions for example) and the interactions between each circle. Attempting to model the complexity within an individual circle is extremely challenging (e.g. consider the challenge in understanding the impact of pricing changes with sales). The inherent complexities of the interaction among the four P's makes building a complete model seem nearly impossible. Even if a theoretical model could be created, it's implementation within a large corporation is complicated by organizational, process, and infrastructure silos. Given the inherent complexity in marketing optimization, it is wise to take a step-by-step approach and focus on one element at a time.

This paper introduces a high-level framework for marketing optimization in the context of the four P's and places a particular emphasis, on Promotion – the P most often associated with the marketing organization. This white paper introduces a series of four white papers designed to address the critical elements needed to build a next-generation marketing measurement system. The next paper will examine the different approaches to create a measurement framework, while a subsequent paper will discuss the data, infrastructure, and software tool requirements. The final white paper will outline how to effectively integrate a complete system throughout the marketing decision making process.

An Example: Promotion

Before considering an all-inclusive measurement framework, it is beneficial delve deeper into one of the four P's – Promotion. People most often associate promotion (or advertising) with the role of a marketing organization as it includes message and creative execution, media placement, and special offers or incentives. Optimizing promotional activities within an organization involves choosing the right combination of communication channels (media) delivered to the right audience, at the right time, with the best communication content (message, creative, and offer). Let's break that statement down into its component parts:

1. **"Combination of communication channels (media)"** – There is a wide variety of media choices today, including direct (direct mail, phone, etc.), mass (TV, radio and print, etc.) and interactive (e-mail, SEM, mobile, etc.). A marketer must choose where to spend advertising budget amongst all the possible media choices.

2. **"Delivered to the right audience"** – Audience is a group of individuals or businesses. Particular products, offers and media are more suitable for some groups than others. Being able to 'target' audience groups with specific and relevant communications is a big factor in the success of marketing programs.

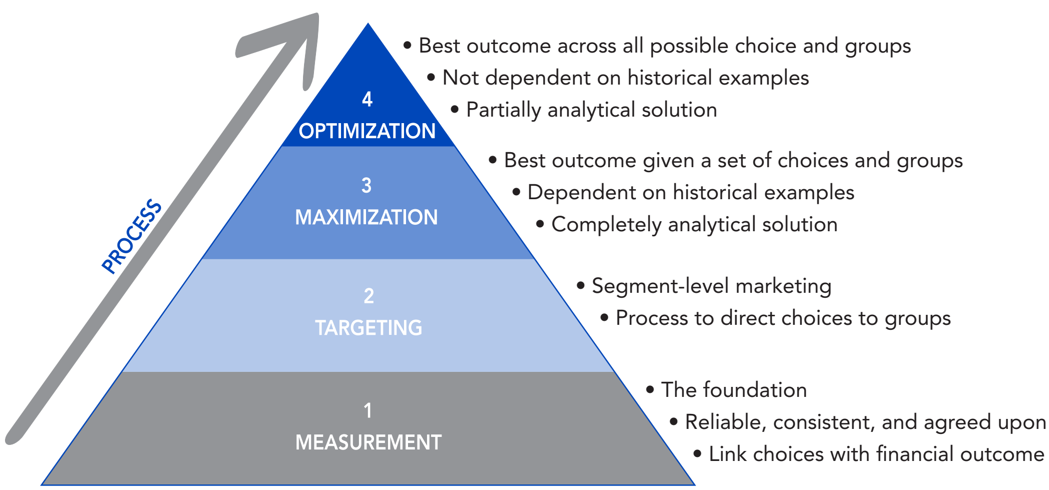
3. **"At the right time"** – The 'right time' means reaching consumers when they are most open to receiving marketing communication. Received at the wrong time, communication can actually have a negative impact on results (e.g. telemarketing calls during family dinner time).

4. **"With the best communication content"** – Communication content is a broad term that encompasses the information being delivered, the look, feel, and tone of the message, and the offer used.

A framework for optimizing promotion activity is shown in figure 2 below. The foundation of the triangle is measurement. A marketer must be able to measure the performance or ROI of promotional activities in order to understand what works and what doesn't. Given that a marketer has a set of choices (media, offers, etc.) and groups to whom to market (audience), targeting is the process of directing choices to the groups that will provide strong ROI. Maximization in this context is used to describe a process of doing the best you can given a set of choices and groups. Optimization, on the other hand, considers all potential choices and groups even if they are not yets available. Measurement, targeting, and maximization can all be accomplished through an analytical process of testing, measuring results, and then using that historical data to come up with the best solution. Optimization requires considering choices and groups that have not yet been created and therefore requires a different set of tools for evaluation.

Figure 2

▶ Optimization Framework



The difference between maximization and optimization is highlighted in "Quantitative Media Management," a white paper published by Merkle in 2006. In this paper, two categories of quantitative analysis are discussed:

1. **Historical media measurement (delivery)** strives to clarify the historical ROI of marketing efforts. Moving up the triangle through maximization can be considered the ultimate goal of historical media measurement.

2. **Media consumption patterns** consider how a marketer's target audience would ideally receive promotional activity. Understanding consumption patterns allows a marketing organization to see the media, timing, or content not historically used by the marketer.

Optimization can only be reached by combining historical media measurement and media consumption patterns. Media consumption patterns are required to gain insight into what an organization should be doing but hasn't in the past. Analyzing historical data alone cannot provide those insights. Organizations need to work on all four areas of the triangle at the same time. However, care should be taken, as misleading results can occur by focusing too much on higher level functions without a solid foundation. Imagine maximizing a marketing metric for ROI when the measurement of ROI is not properly defined. In this case, maximizing the available ROI metric may actually hurt marketing performance since the wrong measure is being maximized.

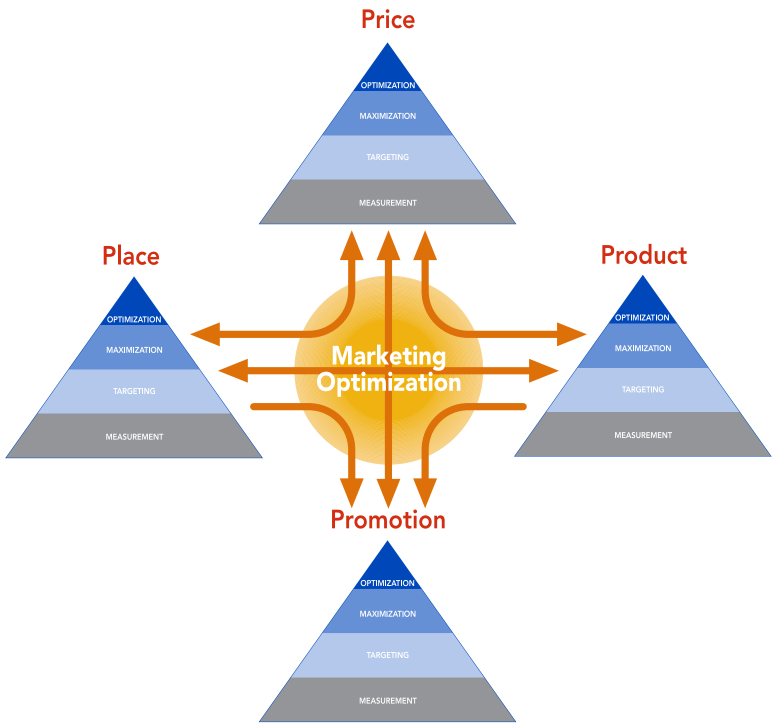
Marketing Optimization Framework

As a first pass, a similar triangle framework can be constructed for the other three P's as well. In pricing, for example, it is necessary to measure the impact of different pricing strategies (measures of elasticity, for example). A marketer will then target certain pricing strategies to different groups in order to maximize ROI. Given a set of pricing options and a set of groups to target, historical data can be used to maximize the performance of the given pricing strategies. However, to optimize pricing, further research may be needed to explore pricing strategies not utilized in the past. This thought process directly parallels the thinking outlined for promotion. Similar thought processes can also be established for product and placement.

While the framework (i.e. "the triangle") provides an understanding of individual components of the P's, it becomes necessary to create a macro framework to illustrate the interaction between the four marketing P's. One way to picture this framework is shown on figure 3 on the next page (The Marketing Optimization System Framework).

Figure 3

▶ The Marketing Optimization System Framework



In this framework, each of the four P's is represented by a triangle. Marketing Optimization is represented as a central point that not only considers the dimension within each triangle, but also the interaction between the triangles. The existence of, and direction of, the interactions between the P's will change depending on the industry. In some cases changing strategy within a marketing P will impact the strategy on the other three P's. Or, as pictured above, promotion may be more than just a delivery mechanism where the promotional strategy is created given a product, pricing, and placement strategy.

It is important to note that this model attempts to understand the true relationship between the marketing P's, not necessarily how this interaction is implemented within an organization in practice. In many cases, an organization may understand that there are significant interactions between the four P's but organize themselves in an isolated fashion that makes true interactive planning between the four P's limited or non-existent. While clearly important, this fact should not influence our marketing optimization model since it is an execution constraint (one of many constraints faced during implementation).

Core elements of a Marketing Optimization System

In order for true marketing optimization to occur, a system must exist (process and infrastructure) to understand not only the strategies within each triangle, but also between the triangles. A **Marketing Optimization System (MOS)** must be able to perform three main functions:

1. **Common measurement foundation and historical reporting.** The MOS must show how marketing decisions have impacted the key performance indicators (KPIs) for the marketing organization. While reporting within an individual P may exist today, the MOS reporting must take into account adjustments for the strategies within the other P's. For example, a price increase may reduce new customer acquisition. However, if concurrent product and placement changes lead to higher value customers, then reduction of new customers may not be a bad thing.

2. **Solid understanding of business processes.** A user of a Marketing Optimization System ultimately needs the ability to create 'scenarios' for evaluation. The system accounts for necessary changes across the four P's when needed. For example, offering a product in a new state (placement) may require changes to the product or pricing strategies due to state-level regulations. The system needs to have enough 'intelligence' built in to it to create realistic scenarios to evaluate these situations.

3. **Ability to forecast performance.** Once a possible scenario is created, the system should be able to take the historical data along with business processes to estimate the scenario's potential marketing performance. Of course, this forecasting will be dependent on many assumptions and extrapolations of which the user needs to be aware.

First Focus: Promotion

Before a MOS can be designed, a certain level of sophistication is needed within each of the four core elements, – at a minimum, a reliable and consistent measurement system must exist. While sounding simple, creating a truly reliable system for a single P can be extremely challenging.

During promotion, a marketer spends money to advertise products in the hope of increasing sales. A marketer has many levers to consider when deciding where to spend their marketing budget. These levers are illustrated as profit drivers in figure 4 on the next page.

Figure 4

▶ The Seven Profit Drivers Of Marketing

Determining Media Spend and Attribution

The marketer can choose whom to promote to (audience), what offer to promote, through what media (TV, radio, direct mail, online, etc.) and using what look and feel (creative) and tone (message) to use. A big decision marketers must make is how much of their marketing budget should be spent within each possible media. Once a budget is set for each media, marketing managers must determine how to best spend that money to produce marketing results. The process to understand what marketing 'worked' often comes down to a process that links purchases with marketing spend (sometimes called an attribution process). If a marketer can accurately record what marketing exposure caused the purchase, they can understand the relative performance of each media in terms of marketing cost to sell an item.

A marketer's ability to accurately measure the effectiveness of each promotional activity is becoming more and more difficult due to many trends, including the fragmentation of the media landscape, the availability of information to consumers (i.e. push vs. pull), and the number of ways consumers can communicate with organizations (Internet, for example). Simply using unique toll-free numbers, landing pages, and key codes does not work. Each of these examples is merely the final 'closing channel' of communication, and fails to account for the other media impressions over time that likely led up to that final decision-making process. While marketers attempt to take these facts into account when evaluating the effectiveness of marketing communications, they still often lack a systematic and fact-driven process to effectively measure attribution.

Summary

The responsibility for most marketing organizations' centers around the promotional activities. Given a product, price point, and sales channel, the marketing organization is tasked to spend promotional dollars as efficiently as possible to drive sales. The challenge arises from the fact that the foundation (i.e. measurement) is often called into question. Marketers must first establish a solid measurement foundation to ensure that decisions are made using reliable performance metrics.

There is no single solution to the measurement challenge. The best solution will vary greatly based on many factors, including the industry and business model, competitive landscape, and market presence/penetration. Future papers will outline a proven approach using media mix modeling. While this solution may not be suitable or feasible for all marketers, it has been implemented successfully across multiple industries.

How Merkle Can Help

Merkle works with several clients to develop the infrastructure and analytics to enable the quantification of brand engagement across their prospect and customer base and make to information-based decisions on their brand equity.

Merkle specializes in information-based marketing strategies and is one of the nation's leading database marketing firms. With a proven track record in developing winning strategies based on information insight for large consumer-focused organizations, Merkle works with many of the nation's leading businesses, including Procter & Gamble, Dell, Capital One, GEICO, and DIRECTV.

Merkle turns clients' data into actionable marketing opportunities by helping businesses acquire, retain, and maximize their most profitable customers. This is accomplished with sophisticated database marketing tools, including predictive modeling, prospect segmentation, customer profiling, and direct marketing program analysis. Providing the necessary framework to aggressively apply information-based strategies to marketing programs, Merkle leverages a highly disciplined and organized approach that helps businesses close the gap between strategy and implementation. The result is significant time-to-market improvements, knowledge expansion, and greater profitability.

Merkle focuses on service by providing a strategy tailored to each of its clients' unique needs. Combining data analysis, analytics, and creative, Merkle helps its clients build custom Marketing Knowledge Centers leveraging technology that best meets the needs of each client. Merkle has over 100 statisticians and analysts who build and deploy nearly 1,000 models and analytical projects annually.

Take your marketing efforts to a new level with Merkle. To begin your information-based marketing strategy, call 800-9-MERKLE or e-mail Mike Savage at msavage@merkleinc.com for more information.

About the Author

Scott Nuernberger is Senior Director, Quantitative Solutions. Scott has over eight years of experience in developing and implementing analytical solutions to marketing programs for many different companies, including GEICO, AEGON, Nationwide Insurance, MBNA, Fidelity, and Dell. Prior to joining Merkle, Scott worked for American Express as a statistician and modeler and taught graduate students statistical methods and experimental design at Cornell University. Scott has dual BS degrees in Brain and Cognitive Sciences and Statistics from The University of Rochester, a MS degree in Statistics from Cornell University, and an MBA from Johns Hopkins University.