

Quantitative Media Management

Using Media Consumption Patterns to Drive Promotion Delivery



A Database Marketing Agency

Introduction

The marketer's objective has not changed: How to deliver a relevant message across all possible media channels given a fixed promotion budget. Marketers must design a plan that delivers media to targeted consumers that matches the way these consumers use media. ■

The risks are huge. Allocate the promotion budget in the wrong channels and the message never reaches the target market, causing sales to slow or decline. But selecting the 'right' channels for advertising is only half the battle. Equally important is determining the optimal amount of advertising to allocate to each channel. Implementing an optimized allocation across the 'right' channels will yield a message that breaks through the marketing clutter, which in turn can lead to increased sales.

Quantitative Media Management

Challenges with Traditional Approaches

Delivering an effective marketing message to your target consumer is becoming increasingly difficult. While the fundamental challenge has not changed, the evolving media landscape has added a new level of complexity. The proliferation of media channels and consumers' media consumption patterns are the two key challenges marketers face today.

Given the vast number of choices available to both marketers and consumers, it is very likely that most marketers are not optimally allocating their promotion budget. To overcome this challenge, it is critical that marketers understand how their target market consumes media and then design a media plan based on that distribution.

No comprehensive framework exists for achieving this objective. However, some of the more widely used media allocation approaches available today include:

The common flaw with traditional approaches is that they are all missing the most important factor in media analysis - the consumer.



- **Media Placement Model** – This approach simply allocates media spending across those channels that maximize total media impressions for a given budget amount. This approach does not rely on any measurement of promotion media, but rather on media placement efficiency.
- **Historical Assessment** – This approach allocates media by simply repeating the previous allocation. Specifically, a very high-level correlation is done between sales, media spend and allocation. If sales objectives were achieved, then the allocation stays relatively unchanged. If sales objectives were not achieved, the allocation is changed based upon the 'intuition' of the management team.
- **Individual Channel Analysis** – This approach quantifies the historical promotion performance of each *addressable* individual promotion channel. This includes direct mail, email, on-line activity and DRTV but does not include broadcast television. Companies use the data that they have to make decisions on media allocation, but rely on 'intuition' to make the final decisions because the largest promotion channel – broadcast television – is not measured.
- **Media Mix Models** – These statistical models attempt to quantify the contribution of media channels on product sales. These models typically include all media channels, including online promotion, direct mail, and broadcast television among others.

Quantitative Media Management

Non-promotion factors must also be included in these models, such as brand equity, market environment, changes in the competitive landscape, etc. The challenge with these models is that consumer media channels can be highly correlated, making the measurement of the independent contributions of each promotion channel difficult at best and misleading at worst.

The common flaw with these approaches is that they are all missing the most important factor in media analyses: The consumer! Each focuses on media cost efficiencies or correlating product sales to advertising levels. No consideration is given to how the consumer absorbs media or how media habits have changed over time. In fact, these approaches only proxy the consumer by using the correlation between promotion activity in a channel and sales in that channel.

Quantitative Media Management

The Solution: Quantitative Media Management

Quantitative Media Management helps marketing professionals effectively allocate promotion dollars across media channels. Media Management is a holistic approach that explicitly integrates both the consumer's media consumption patterns with an empirical approach to measure the **current** value of each channel along with the **potential** value of each channel. This integrated approach is significantly more likely to maximize promotion effectiveness than current methodologies. To successfully optimize promotion allocation, both areas must be understood. This paper outlines a framework for Quantitative Media Management.

In selling and promoting a product, marketers have direct control over half of the selling dynamic. That is, how their message is delivered to the target market. Marketers do not have control over how that message is consumed by the target market. To successfully sell a product and to continue to grow in both sales and market share, marketers must fully understand and influence both components of the selling dynamic.

A successful Media Management Framework focuses *on how media is developed as well as how it is consumed.*



A successful Media Management Framework focuses on how media is developed as well as how it is consumed. In delivering the promotion message, effective marketers should develop an empirical framework around historical promotion activity in order to understand what has worked and determine how to optimize promotion spend across channels.

For the media consumption component of the selling dynamic, it is imperative that marketers understand the media consumption patterns of their target consumers. These patterns help marketers develop a better understanding of how the target market allocates its time across media channels, in addition to how and where they obtain their product information. Only by bringing these two areas together can a marketer develop a full understanding for the media consumption dynamics of the marketplace, which will enable the marketer to construct the optimal media plan.

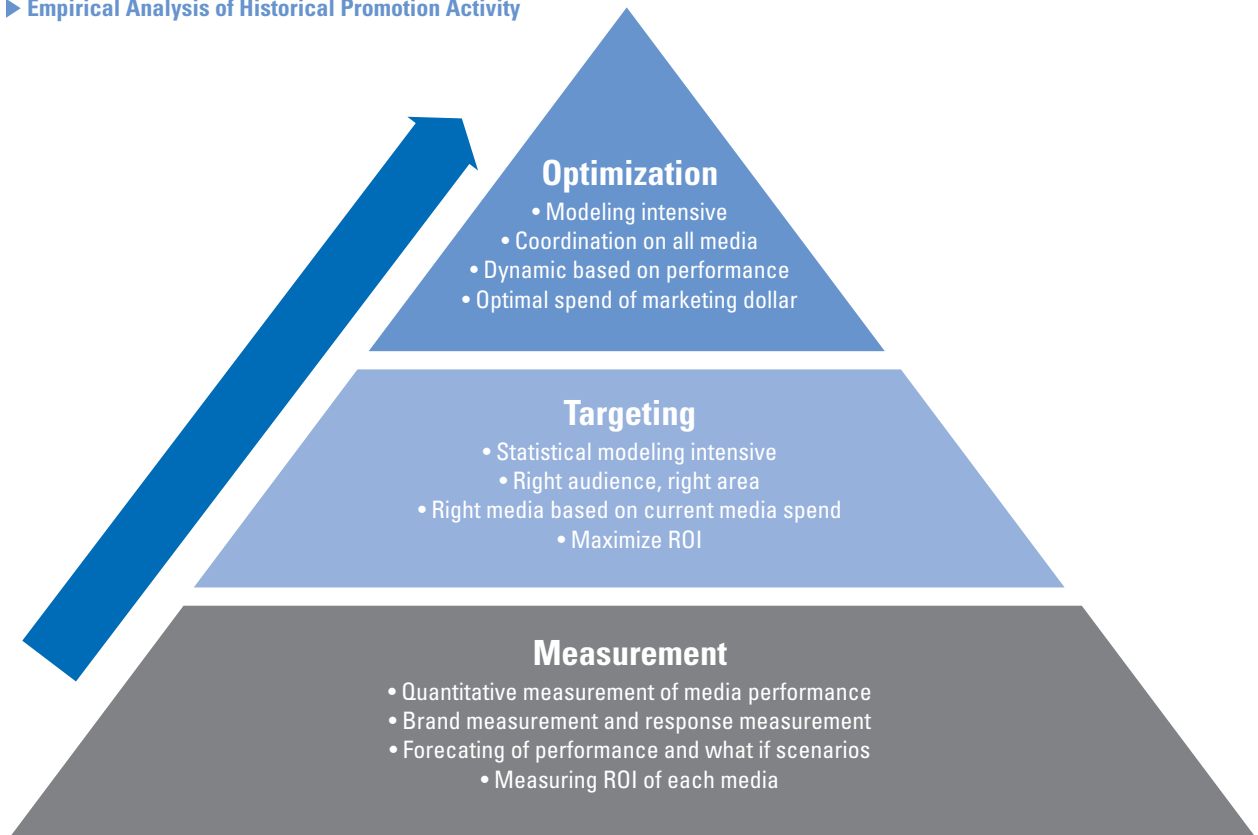
Quantitative Media Management

Optimizing Promotion Delivery

All companies promote their products, yet not all companies can quantify the historical impact of promotion activity on product sales. There is also a tremendous amount of variation around how companies quantify promotion impacts. Three levels of historical media measurement are highlighted in Figure 1.

Figure 1

► Empirical Analysis of Historical Promotion Activity



Quantitative Media Management

Quantitative Media Management is the integration of Measurement, Targeting and Optimization. The Measurement phase focuses on quantifying the contribution or ROI of an individual promotion channel. An example of this would be a company that quantifies the contribution of direct mail campaigns but does not quantify the contribution of other promotion channels such as television or online. These results are used to gain a historical perspective of promotion, answering the question “Did it work?”

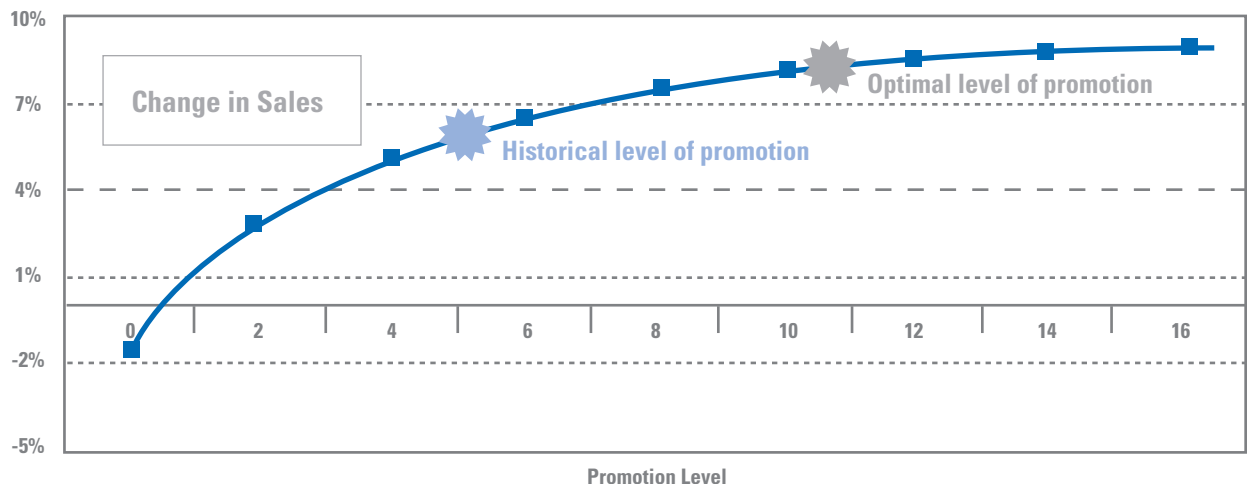
Figure 2 shows the results of a historical response analysis. The X-axis is the promotion level (e.g. number of impressions, click-throughs, mail pieces, etc.) and the Y-axis represents the change in sales. Other metrics can also be used instead of sales (units, conversions, responses, etc.). When measuring the response within a channel, the key output is an empirical link between promotion level and sales change, which allows for the creation of simple ROI calculations.

The next step uses the historical measurement results to drive the targeting decisions for the next media campaign. Specifically, the measurement results are used to determine the optimal spend level within that channel for a given consumer segment. Continuing the Direct Mail example, companies in this phase answer the questions “Did it work?” and “How much to spend in this channel and targeted to whom?”

The analysis outlined in Figure 2 shows the promotion response result within a channel (e.g. direct mail, etc.) and by consumer segment. This result shows that for Segment 1 the optimal level of promotion activity is 10 units. These results are then used to calculate the financial impact of the change. Lastly, the recommendation is that this segment should receive increased promotion activity, while other segments may show a similar increase, no change or a decrease. The results across all segments are then developed and fed into the media plan for this channel.

Figure 2

► Promotion Response for Segment 1



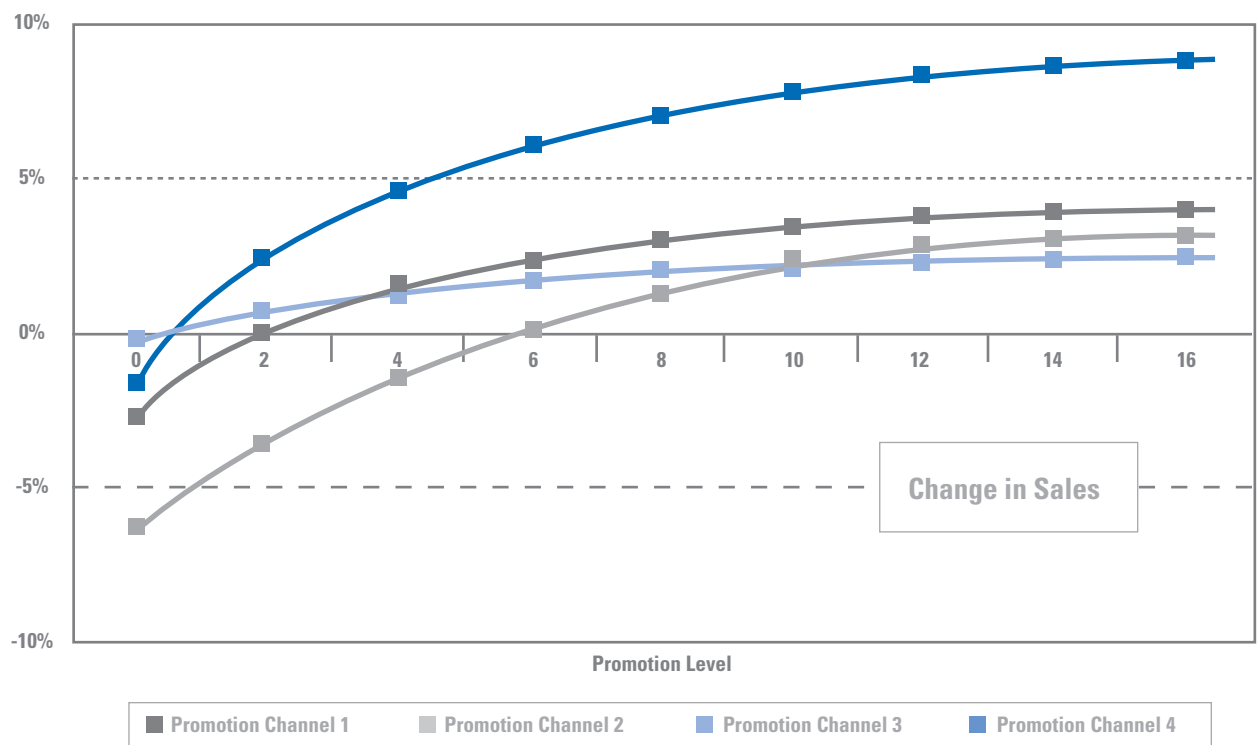
Quantitative Media Management

In the Optimization phase, **cross-channel** performance and allocation decisions are made. The Optimization phase focuses on simultaneously quantifying the contribution across each promotion channel. Additionally, synergistic effects across channels are also estimated.

As Figure 3 shows, the relationship between the level of promotion activity (captured on the X-axis) and market share gain (captured on the Y-axis) varies by promotion channel and by market segment. In this example, Channel 4 is significantly more responsive than Channel 3. Therefore, Channel 4 would draw more future promotion investment relative to Channel 3, assuming no other significant changes.

Figure 3

► Promotion Response for Segment 1 by Channel



Note that the results in Figure 3 already account for potential synergistic effects that explicitly recognize that two promotion channels may work in a complementary fashion to drive consumer response or may work in a substitutable role.

Quantitative Media Management

Once the response analyses are complete the response curves are then integrated into an optimization model. The optimization model results will highlight the changes in media allocation needed to maximize brand profits. This is illustrated in Figure 4.

Figure 4

► **Optimal Allocation for Segment 1**

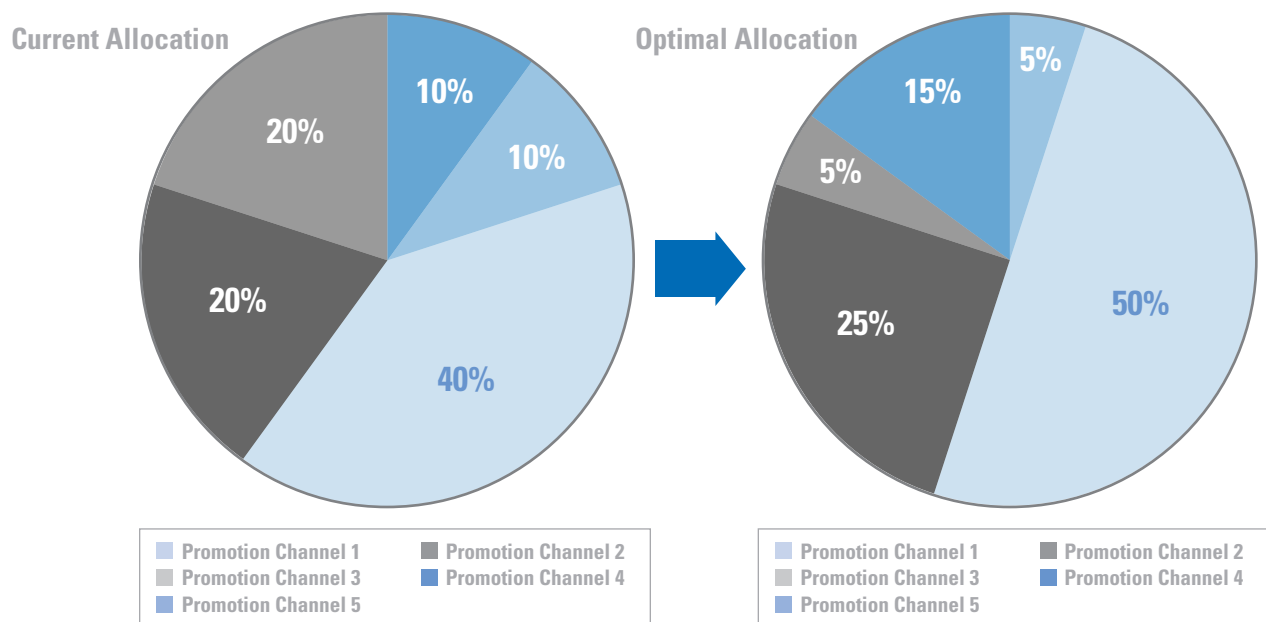


Figure 4 highlights the output of media mix optimization for a single brand. The results show the allocation of promotion dollars across the available channels. In this example, the historical allocation provided 40% of the total spend to Channel 1, and 20% to Channel 2. In the optimal allocation, Channel 1 increases to 50%, Channel 2 increases to 25%, Channel 4 increases to 15%, while Channels 3 and 5 decline to 5% each. The optimal allocation generates a higher promotion ROI and higher sales than the historical allocation. This analysis is conducted for each of the key market segments that the brand targets.

The analysis approach above is easily extended to include the promotion mix across brands. By doing so, the marketing team will have an empirical framework for quantifying each promotion channel's contribution to each product. This framework provides marketers with empirical support to determine whether a dollar spent on television to support Brand X is more profitable than that same dollar spent on print to support Brand Y. This illustrates the true power of the Optimization phase within the Quantitative Media Management framework.

Quantitative Media Management

How to get started

Media mix models with optimized results require two critical elements to run effectively: the integration of direct and indirect promotion data, and the appropriate statistical modeling structure.

- **Integrating Promotion Data** – The best data would capture every promotion message that was delivered to each consumer. This would include how many GRPs (Gross Ratings Points) the consumer was exposed to, how many direct mail pieces the consumer received, emails opened, radio commercials heard, etc. While some of these metrics are available, others are not. This has led to the split of ‘addressable’ vs. ‘unaddressable’ media and to the previously mentioned issues regarding the challenges inherent to developing and using media mix models.

The optimal solution for this challenge is to integrate the standard metrics for addressable media channels while incorporating unaddressable media at a geographic level. National television advertising has typically been identified as a media channel that cannot be accurately measured because there is no trackable direct response mechanism for this channel. However, we recommend capturing national television GRPs at the DMA level.

Experience indicates that national media plans do not deliver a uniform level of GRPs to each DMA. In fact, it is more typical for the DMA GRP delivery to vary by up to 50%. That is, when executing a national media plan, the level of GRPs delivered to one DMA may only be 50% of what another DMA receives. It is precisely this variation in GRP delivery that we want to capture and exploit in the statistical models. With this data, we will have both direct channel promotion data and indirect channel promotion data for each consumer. This dataset can then be used to quantify the contributions for each promotion channel.

- **Selecting the Right Model** – Several methods can be used to develop media mix models. However, there is no single model structure that works in all situations. Therefore, it is critical to let the data drive the model functional form. A few other key notes on modeling include:

- When measuring promotion response, it is critical that the model form be flexible enough to estimate the promotion channel’s diminishing returns.

Promotion levels can be increased in a channel but the rate of gain will slow

There is no single model structure that works in all situations
— *It is critical to let the data drive the model functional form.*

Quantitative Media Management

over time. The model functional form needs to account for this.

- Promotion response models must be able to separate both promotion and non-promotion effects on brand sales. Non-promotion factors include competitive market conditions, competitive product entry, and the 'brand presence' established by the product. Failure to accurately capture these non-promotion factors will cause the promotion factors to be overstated.
- Synergistic effects must be tested in the model. It is very likely that multiple touch points – and not a single channel - drive a consumer's response to a promotion. To fully understand this dynamic, it is critically important to test for synergistic effects across promotion channels. Failure to do so will lead to biased estimates of each promotion channel's contribution.
- The optimization model results must be tied to the tactical execution capability. The media optimization model is a very flexible tool. However, if the recommendations from the optimization model can not be readily implemented, then the model should account for these realities. Additionally, if the optimization model has identified an opportunity to grow sales by reallocating the promotion budget, then it becomes important for the brand team to find a way to execute the recommendation.

Quantitative Media Management

Quantifying Media Consumption

To deliver a message to the targeted consumer, it is necessary to know how consumers allocate their time across media channels. Specifically, information is needed concerning which media channels are used by consumers and how much of their time is spent in each channel. Based on this information, the marketer can develop an effective strategy for reaching target consumers in channels used by the consumer.

The primary challenge lies in obtaining media consumption information from the target market. There are several approaches to obtaining this data.

- **Ethnographic Research** – Using this approach, data is collected by direct observation of the subject of interest. Its primary limitation is clear: Data collection is too cumbersome. This approach is not feasible for marketers who are interested in understanding media consumption across a broad customer base.
- **Proprietary Panels** – Consumer panels that capture consumer media consumption patterns permit data collection over an extended period of time and the data collection process is relatively straightforward. This approach is limited in that a marketer only gains insight into those consumers on the panel. If the panel does not provide an adequate sampling (e.g. a large pool of Hispanic customers, or college age students, etc.), then the panel at best provides directional evidence.
- **Market Research** – Market research studies can also collect media consumption patterns. The market research approach provides the flexibility required to target and collect information on any consumer group. The sample design for the market research study can be structured to collect data on any group of consumers. This ensures that marketers can gain media consumption insights from any portion of the population.

Rather than using customer-reported information collected from market research studies, marketers should instead focus on relative values.



To be useful, market research has a huge challenge to overcome: Consumers cannot reliably estimate the amount of time they spend on each media channel.

Rather than using customer-reported information collected from market research studies, **marketers should instead focus on relative values.** To understand the difference between these two approaches,

Quantitative Media Management

consider the following:

- Example 1: Consumer Smith is asked during a market research study to provide an estimate of the number of hours he has spent watching television and on the Internet in a typical week. Let's say this answer is 50 and 25 hours, respectively.
- Example 2: Using the same example, instead of using the absolute values from the survey, we can confidently state that Consumer Smith spends twice as much time watching television than surfing the internet.

These examples highlight an interesting marketing research survey phenomenon. While Consumer Smith may be significantly off in his estimate of the number of hours watching television and on the Internet, **Consumer Smith is off by roughly an equal extent for both answers!** However, in both cases, television is the more likely channel to reach Consumer Smith.

Capturing this relative measure of media consumption is extremely valuable in understanding how a marketer's target market consumes media. Unfortunately, capturing this information is not a straightforward process. Many market research study designs do not effectively capture the relative information. There are many details that must be managed to leverage market research as a viable method for capturing media consumption data.

The sample design must be based on consumers in the target markets. If there are four consumer segments for a particular brand, then all four segments must be captured in the sample design. The sample size per segment must also be large enough to capture statistically significant results. While many different approaches to developing the survey exist, the best survey design will contain sections that capture:

- Current media consumption patterns (e.g. time spent watching TV, listening to the radio, surfing the web, etc.).
- Justification as to why certain media channels are not used, or used less frequently than other channels.
- How consumers utilize each media channel. Specifically, does the consumer view product information via the Web? Does the consumer read email promotion messages? How closely does the consumer read direct mail pieces?

Quantitative Media Management

- How the consumer obtains information about products and services across multiple categories. Does the consumer use the Internet? How many websites are visited? Which sites are visited most often? How does the product search vary for low-engagement products (e.g. consumer package goods, etc.) compared with high engagement products (e.g. pharmaceutical products, etc.).
- The channel the consumer uses to engage with a particular brand or product. Specifically, what is the easiest channel by which to communicate the product benefits / features and offers to the consumer?
- The channels used by the consumer to order products and services. This section specifically addresses how consumers engage with the product. These questions are designed to provide insight into how channels interact in driving consumer response. For example, are consumers likely to order the product via the Internet but obtain product information from other sources or vice versa?

Ideally, this research study should be executed on an on-going basis. The data should be updated and refreshed every three to six months. The timing of the research study will be coordinated with the timing of the historical optimization analysis discussed in the previous section.

The marketer will now know how the target market is interacting with each media channel. The next step is to integrate the consumer's use of media with the optimization results to inform future media planning decisions.

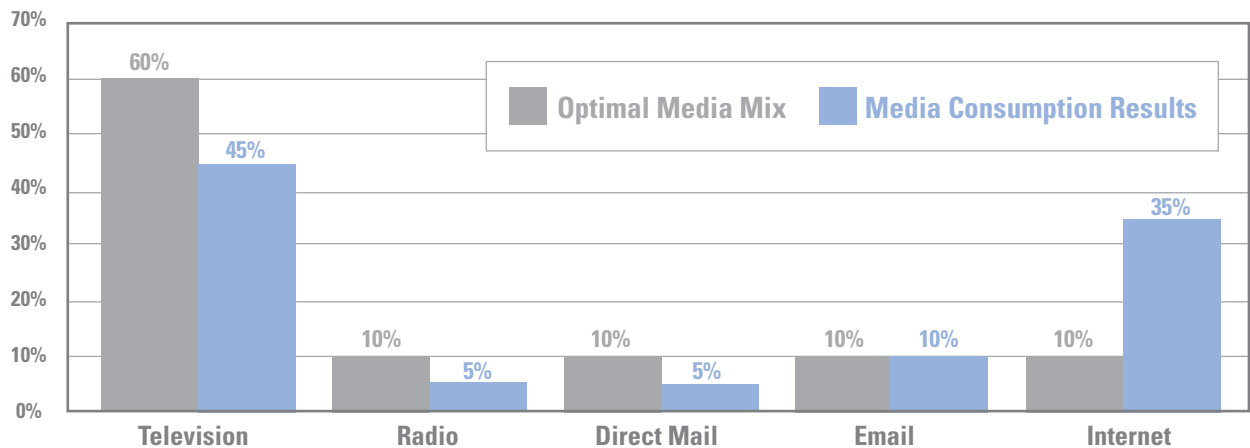
Quantitative Media Management

Integrating Promotion Delivery and Consumption

The final step in the Quantitative Media Management process is to directly link the media consumption preferences of the target consumers with the optimization results from the historical analysis. A very simple example of this comparison is illustrated in Figure 5.

Figure 5

► **Comparison of Optimal Media Mix Results with Media Consumption Results**



In this example, 60% of the media weight is allocated to television, while the remaining media channels each receive 10%. Remember, this optimal result is based upon historical analysis of promotion response and media optimization.

Now consider the allocation of time spent from consumers on each channel, as captured from the market research study. Based upon the survey results, the target market of consumers is reporting that they allocate 35% of their media consumption time to the Internet. Television is also an important channel.

When the two metrics are brought together, we see the disparity between the two results. The marketer would recognize that the target market is spending a significant amount of time on the Internet. The marketer would then focus on allocating more promotion effort to the Internet channel at the expense of television.

Of course, this is a very simplistic example. A number of considerations need to be accounted for when conducting this analysis. Using the example, it is easier to move away from television if that channel is already saturated, or near saturation levels. However, if the optimization analysis shows that television is, even at the 60% level, still providing a significant marginal ROI, then the move away from television needs to be further analyzed.

Quantitative Media Management

Benefits of Quantitative Media Management

Quantitative Media Management provides marketing organizations many benefits, including:

- **Achieving customer-centric marketing:** By providing a clear understanding of consumers and how they interact with marketing efforts over time, Quantitative Media Management helps target promotion activity and predict outcomes. With this information, customers can be acquired more efficiently and attrition is easier to manage.
- **Improving consumer relevancy:** By easily identifying types of customers, marketing can deliver highly targeted and relevant marketing messages to consumers, reducing the likelihood customers will ask to be removed from contact lists.
- **Aiding in fragmented media and channel management:** Via statistical techniques and control processes, marketing executives can measure and optimize multi-medium efforts that positively influence customer behavior. Even channels that do not provide addressable information, such as television, can be measured.
- **Improving marketing efforts:** Consumers can be targeted more effectively because marketing knows who they are, how they prefer to receive marketing messages, and can predict the likelihood they will respond.
- **Measuring the effectiveness of efforts:** Every marketing effort is tracked and connected to customers. Marketing executives can now determine whether the presence, absence or combination of marketing messages is affecting consumer behavior.
- **Improving accountability:** With fact-based evidence to support the decisions of marketing, marketing executives can validate decisions, provide reports that tie efforts to sales and establish budgets by proving the value of incremental marketing investments.
- **Helping balance mass and targeted marketing:** By creating, testing and measuring marketing programs, marketing can discover the best mix of mass and targeted promotions.
- **Improving business management:** Brand management, media optimization and measurement, content management, infrastructure management and loyalty program management can all be improved with information-based marketing.

Quantitative Media Management

Considerations in Selecting a Partner

Applying an effective media management strategy involves working with experts who can guide the entire process to ensure success. When seeking a marketing partner to help you implement such a strategy, the following key considerations should be taken into account:

Database marketing technology: The engine that drives information-based marketing is a well-managed and up-to-date database. Work with a company that has demonstrated database marketing leadership and has produced quantifiable results for companies similar to yours.

Proven Strategic Framework: A systematic, well-defined engagement approach that includes proven processes serves as a foundation for any successful marketing program. A good approach should begin with a comprehensive needs assessment, the identification of actions that can provide immediate benefits and the discovery of issues that could prevent the business from maximizing results.

Experienced analysts: Seek a company that includes experienced analysts who can build marketing models, perform complex analytics and determine what actions should be taken on a continuous basis. Also, look for a company that can use strategy to drive better creative.

Multi-channel and media experience: Look for a company that has experience across multiple marketing channels and forms of media, including direct mail, email, call centers, retail, web, mass media, and that understands the interrelations across channels.

Ask for proof: The ideal partner should be able to demonstrate previous success based on case studies, testimonials and access to existing customers.

Continuous innovation: Work with a company that is constantly testing and improving new marketing methods. The right marketing partner will work with you collaboratively, providing ongoing strategic consultation.

Seek a company that has demonstrated database marketing leadership and has produced quantifiable results for companies similar to yours.



Quantitative Media Management

The Merkle Advantage

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 client's 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.

Providing accurate, integrated and accessible customer data, Merkle helps ensure results. With information, campaigns can be created and delivered across channels, content can be targeted to specific customers, sales can be measured across all channels and trends can be identified, enabling further campaign refinement.

Technology, primarily in the form of database marketing infrastructure, is a critical component of information-based marketing. Merkle has extensive experience building, maintaining and enhancing marketing systems. The Marketing Knowledge Center is specifically designed to give marketers a platform that directly enables their strategy, analytic and campaign activities.

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

Merkle has been helping the nation's leading consumer-focused businesses for 35 years.



¹ Ranked as a market leader in 2006 by Forrester Research and as a top 20 marketing services agency by Advertising Age.