3 Organizational Objectives and Informational Needs

The ultimate goal of marketing analytics is to contribute to the creation of sustainable competitive advantage by providing economically actionable, decision-aiding knowledge. Doing so necessitates, among other things, rooting of data analytics in the stated organizational objectives and the resultant informational needs.

This is a lot simpler than it may sound, because from the standpoint of marketing actions, organizational objectives can be grouped into three distinct clusters: 1. acquisition of new customers; 2. retention of existing customers; and 3. optimizing the value of customer relationships. Obviously, this is not an "either-or" listing, as most organizations will pursue, or will want to pursue all of those objectives concurrently; however, from the standpoint of marketing analytics—and more specifically, the creation of decision-aiding knowledge—each of these objectives entails a different set of analytic activities. Hence it follows that in order for the outcome of marketing analytics to have the maximum decision making impact, it needs to be "tailored" to the organizational objective-driven informational needs. This chapter offers an outline of the key considerations entailed in systematically cataloguing marketing database analytics-related organizational objectives and the resultant informational needs.

Organizational Goals

It was noted in the opening chapter that a business enterprise ultimately just has one goal—to create a customer. To do so, a business organization needs to perform two critical functions: 1. to foster innovation, and 2. to effectively market the organization's products and/or services. The latter of the two imperatives is the domain of marketing, and depending on the degree to which the task of promoting of the organization's products and/or services can be effectively carried out using the least amount of resources to win the largest number of customers, marketing will have contributed to the organization's competitive advantage. This can be viewed as an "offensive" aspect of the broadly defined marketing function.

As much as winning new customers is critical to business organizations' growth and prosperity, retaining current customers is just as important. In fact, anecdotal evidence suggests that, on average, it is about four times more expensive to win a new customer as it is to keep an existing one—stated differently, without an effective (customer) retention strategy, even the most successful acquisition efforts might not be economically sustainable over the long run. Just consider the case of the U.S. automakers who, during much of the 1990s and the early part of 2000s were locked in a three-way (GM, Ford and Chrysler) discount-based customer acquisition war, which ultimately led to GM (actual) and Chrysler (de facto) bankruptcies, as well as the overall erosion of the U.S.-based automakers' share of the U.S. market.

A perhaps less clear-cut marketing-related organizational goal is to "economize" customer relationships, which means increasing the profitability of individual customers. Doing so might

entail migrating select customers toward more profitable products/services (e.g., from entry-level to a luxury sedan for an automaker or from basic to premium programming options for a TV cable operator), reducing promotional subsidies, such as manufacturer coupons used widely in consumer packaged goods, or increasing the frequency of repurchase, which is often the goal for travel and leisure products and services.

Whatever the stated business objectives, the role that marketing promotions usually play in reaching those goals falls into one of the three distinct sets of activities:

1. New customer acquisition.
2. Current customer retention.
3. Customer value maximization.

As noted in Chapter 1, most organizations will be concerned with all of the above, but at any given time, one of those goals will be more pronounced than others. For instance, a relatively new and small organization will typically emphasize sales growth and market penetration over near-term profitability, while a more mature and established firm will typically be more concerned with increasing the profitability of its operations. And ultimately, since all organizations have to make tradeoff-entailing resource allocations, the resource constraints will usually "force" the prioritization of objectives.

Informational Objectives

One of the biggest challenges of database analytics is that of effectively dealing with the divide separating the analysts and the users of information. As expected, the former tend to view analyses of data as a technical task governed almost entirely by data and method characteristics, while the latter are typically consumed, again almost entirely, by business implications. Naturally, both viewpoints have merit: Technical modeling issues are critical to the robustness of ensuing results, just as the practical applications of findings are the ultimate determinant of their value. Unfortunately, the often limited understanding of each other's priorities and issues tends to lead to analysts guessing their way through projects' practical substance-related considerations, at the same time as the future business users are glazing over the results' research methodology-related limitations. Not surprisingly, such Babylonian efforts commonly yield poorer overall results for organizations than multi-million hardware, software and data investments could otherwise produce.

So what can be done about it? To use Plato's utopian vision: Should kings become philosophers, or should philosophers become kings?[1] Frankly – neither. For the most part, given the depth and the relative complexity of quantitative data analytical methodologies and related topics, it seems unreasonable to expect the users of information to become methodological experts. At the same time, considering the typical detachment of analysts from the practical applications of their analyses, it is not likely that they will reach the users' level of business need understanding. That leaves only one feasible avenue to improving the less than ideal analyst—user level of cooperation; namely, to put in place a systematic process of defining informational needs that can reliably "translate" business informational needs into operationalizable analytical activities. Unfortunately, it is not quite as easy as it may sound.

There are a couple of general, highly interrelated challenges that need to be overcome. The first one can be broadly described as the *level of informational precision*. While business needs are typically stated in somewhat general—if not ambiguous—terms, data analysis needs precision and specificity, if it is to hit the "informational bull's eye." For example, let's consider a question commonly asked by marketers: "*How are my campaigns performing*?" To a business user this

seems to be a perfectly clear, self-explanatory question, yet to an analyst, its meaning is far from obvious. Looking at it from a standpoint of having to make the most appropriate data and method selection, an analyst will realize that there are numerous, operationally distinct approaches that can be used here, each yielding a considerably different answer. For instance, counting the number of campaign responders is one of the potential analytical avenues, often picked because it offers the simplest way of assessing an aggregate performance of a promotional campaign. A (far) more analytically involved alternative involves the quantification of the campaign specific lift, or sales incrementality attributable to a particular treatment, as a way of comparing the performance of individual campaigns. Another approach sometimes used entails surveying consumer awareness changes or satisfaction levels, with the implicit assumption that heightened awareness/satisfaction levels will translate into higher sales. The point here is that what might seem to be a clear-cut business question can be analytically quite ambiguous.

The second obstacle is even more fundamental, as it involves timely and complete *a priori delineation of business informational needs*. As defined here, it is a relatively broad endeavor encompassing the distilling of the big strategic picture into more granular tactical components, clearly stating data and methodological requirements, followed by the sketching out of an analytical roadmap. Taken together, the component parts of the a priori delineation of business informational needs can be thought of as a continuum to which both the analysts and business users of information can contribute, as shown below:

Business users are responsible for putting forth strategic and tactical objectives, which is the point of departure in developing a robust informational foundation. At this point, the emphasis is on presenting a comprehensive picture of the high-level business objectives. Next, the strategic and tactical objectives need to be translated into specific informational requirements. For instance, the high level strategic goal of increasing the brand's profitability may translate into the need to identify the most profitable potential new buyers (informational need #1), the most effective promotional mix vehicles (informational need #2), or a delineation of robust performance metrics (informational need #3). The success in this stage depends on the business users and analysts working together earnestly to add a dimension of analytical precision to the stated informational needs.

Figure 3.1 Delineating Informational Needs: The Team Continuum

Once the informational needs have been defined and operationalized, analysts are then responsible for addressing data and methodological requirements. It all boils down to answering a basic question: *What are the data and methodological requirements that are necessary to deliver against the stated informational needs?* The last step in the process—the development of an analytic roadmap—puts forth a clear plan for how those goals will be accomplished, spelling out the timeline, resource requirements, means and dependencies as well as the final deliverables. It makes it possible for analysts to describe the upcoming deliverable and solicit feedback before committing to a specific analytical course of action.

An optimist looks at what appears to be a problem as a potential opportunity to bring about improvements. The degree to which analysts and users of analyses-based insights do not sufficiently communicate with each other presents a challenge insofar as the value of data analysis is concerned. At the same time, being able to pinpoint the specific deficiencies stemming from the said poor communication—the level of informational precision and an a priori delineation of business informational needs—offers a blueprint for an effective remedy, outlined earlier in Figure 3.1.

Delineation of Strategic Goals and Tactical Means

Baldrige defines strategic objectives as "*an organization's articulated aims or responses to address major change or improvement, competitive issues, and business advantages*." Paralleling an advertising slogan, database analytics does not "make" strategic objectives—it "helps" in turning them into reality.

A well-defined set of strategic goals includes the appropriate operationalizations, or tactical means by which the stated objectives are to be reached. For instance, the goal of growing the brand's sales can be tactically reached by lowering prices, increasing promotional intensity or targeting new consumer segments.[2] In fact, it is the tactical means to the organization's stated strategic goals that are the true point of departure in the database analytics planning process, simply because tactics are more tangible and as such, more indicative of the requisite informational needs. In that sense, the goal of database analytics is to aid in the identification and execution of tactics driving the stated strategic objectives.

The task of delineating the focal strategies and tactics belongs to business users, with a particular emphasis on those accountable for reaching the stated goals. Goal specificity is highly desired.

Uncovering Informational Needs

Once the organization's overall strategic goals and their tactical means have been clearly enunciated, specific informational needs can be identified. In general, those will fall into one of the following two categories:

1. Explanation and prediction.
2. Ongoing assessment.

Explanation and Prediction

This is a broad category of potential analyses, ranging from relatively simple univariate (i.e., one variable at a time) investigations to complex multivariate (i.e., simultaneously considering multiple variables) predictive models and simulations. For instance, a frequently encountered business goal that relies heavily on exploratory analytical capabilities entails brand pricing decisions, typically framed in the larger context of stimulating sales. It is well known that most products exhibit some level of price elasticity, which means that a price decrease can be an effective sales stimulant. The challenge, of course, usually revolves around the identification of that optimal tradeoff between a lower per unit profit level (due to price decrease) and the increase in aggregate sales, and total profit. From an analytical point of view, a key inference-based input into these decisions is the appropriately operationalized price elasticity.

Predictive analytical capabilities, on the other hand, are exemplified by the seemingly ubiquitous need to grow sales through new buyer acquisitions. Here, database analytics are often

looked to for the identification of high brand conversion or trial likelihood prospects. In other words, for a brand with a X% market share in a product category Y, Y—X typically represents the universe of prospects, which means that for a number of widely used products, such as breakfast cereals, cellular phones or automobiles, the "available" prospect pool can be both large in terms of size and diverse in terms of preferences. Certain types of predictive models, described in depth in Chapter 7, can be used to focus the acquisition efforts on a subset of prospects deemed (i.e., predicted) to be most likely to convert, which will obviously increase the efficacy and the efficiency of those endeavors.

In general, the exploratory and predictive analytical capabilities supply decision making inputs prior to taking a particular business action—in other words, they are helpful in making better informed decisions. In the way of contrast, the ongoing performance assessment set of capabilities discussed below helps to assess the impact of decisions that were made by objectively quantifying their impact. As discussed throughout the subsequent chapters, the two sets of capabilities are the cornerstones of the database analytical process described in this book.

Ongoing Assessment

Frequently referred to as the "back-end program measurement," this is a family of methods focused on objective quantification of the impact of the organization's strategies. Depending on data availability and the level of methodological sophistication, it can range from a simple tallying of promotional response rates to a relatively involved quantification of the treatment-attributable sales incrementality.

In contrast to the innovation-focused exploratory and predictive capabilities, the ongoing impact assessment "values" cross-time and cross-treatment standardization. In other words, the most effective back-end measurement capabilities are those yielding results that are comparable across the different types of initiatives and across time.

Both the exploratory and predictive capabilities, as well as the ongoing impact assessment are most effectively planned through a close cooperation between business users and analysts. Combining the knowledge of the two early in the analytical planning process will likely bring about greater efficiencies later by zeroing in on what questions should be asked and which ones can actually be answered in view of the ever-present data and methodological limitations.

Assessing Data and Method Requirements

The notions of data availability and methodological readiness can themselves be depicted in terms of a continuum representing the degree of data availability or methodological readiness. Oftentimes, the transactional data is immediately available as it tends to reside on the organization's systems, and as such it is ready for extraction and deployment. By the same token, data representing an enhancement offered by an outside third-party, such as consumer credit bureaus, geodemographic or lifestyle research firm, etc., is available in the sense of being acquirable, which simply means that considerably more time may elapse before it is physically in the possession of an analyst. In addition, outside data appending frequently involves an a priori target extract preparation, post hoc assessment of the hit rate,[3] not to mention a potential contract-negotiation-related slowdown. Often glazed over as banal or mundane, these details should be expressly considered as a part of the analytical planning because as uninteresting (to both analysts and business users of information) as they tend to be, they have the potential of derailing the timing of even the simplest analyses. And gaining a leg up on the competition means not only having the

right insights, but also having that knowledge available at a time when using it can make a difference.

On the methodological readiness side, it is important to acknowledge that the depth of expertise and the methodology-specific experience can vary—at time substantially—across analysts. Keeping that in mind is not only one of the key prerequisites to effective analytical planning (discussed next), but may also lead to questions surrounding the "do in-house" vs. "outsource" decisions.

An often overlooked consideration involves tool requirements. As the available statistical analysis software grew more powerful over the years, it also grew more expensive, modularized (i.e., divided into a base system plus add-on modules) and specialized (i.e., the general purpose SAS and SPSS statistical analysis packages vs. a limited purpose tools, such as MARS or CART). Consequently, many organizations opt to initially purchase scaled-down versions of the more expensive software and add additional modules as the need arises. Again, it is worthwhile to consider the informational objectives in the context of the required tools to avoid last minute surprises.

Analytic Roadmap

A crucial step, but one not always taken, is the development of a comprehensive analytic roadmap, an Analytic Plan. This document, which represents a "contract" between the analysts and the user community, should be prepared by the former with the full participation and the ultimate buy-in from the latter. At the very minimum, a well-crafted analytic roadmap should contain the following:

- An explicit delineation of the individual analytic initiatives with a clear linkage to specific informational needs and ultimately, the organization's strategic objectives.
- An overall completion timeline showing the starting and completion dates for each project.
- A description of how each initiative will improve the decision-making process.
- Data, special tool and other requirements.
- Analytic and business owners of each initiative, identified by name.
- Brief functional description of the end state of each initiative.
- Brief methodological description of individual initiatives.

The purpose of the roadmap is twofold: On the one hand, it serves to set clear expectations among the business users, both in terms of the specific upcoming deliverables as well as the approximate completion time. In that sense, it also minimizes disruptive clarification user demands, thus allowing analysts to concentrate on the task at hand.

The second key purpose of preparing an explicit analytic roadmap document is planning efficiency. Analytic staffing needs, external data and additional tool requirements or outsourcing needs can be identified ahead of time and action can be taken in a more cost-efficient manner. Business users can also plan around the scheduled availability of the new informational assets.