Part I
Product and Portfolio Management

Effective marketing comes from customer knowledge and an understanding of how a product fits customers' needs. In Part I, we'll describe metrics used in product strategy and planning. These metrics address the following questions: What volumes can marketers expect from a new product? How will sales of existing products be affected by the launch of a new offering? Is brand equity increasing or decreasing? What do customers really want, and what are they willing to sacrifice to obtain it?

We'll start with a section on trial and repeat rates, explaining how these metrics are determined and how they're used to generate sales forecasts for new products. Because forecasts involve growth projections, we'll then discuss the difference between year-on-year growth and compound annual growth rates (CAGR). Because growth of one product sometimes comes at the expense of an existing product line, it is important to understand cannibalization metrics. These reflect the impact of new products on a portfolio of existing products.

Next, we'll cover selected metrics associated with brand equity—a central focus of marketing. Indeed, many of the metrics throughout this book can be useful in evaluating brand equity. Certain metrics, however, have been developed specifically to measure the "health" of brands. Part I will discuss them.

Although branding strategy is a major aspect of a product offering, there are others, and managers must be prepared to make trade-offs among them, informed by a sense of the "worth" of various

features. Conjoint analysis helps identify customers' valuation of specific product attributes. Increasingly, this technique is used to improve products and to help marketers evaluate and segment new or rapidly growing markets. In the final sections of Part I, we'll discuss conjoint analysis from multiple perspectives.

Metric		Construction	Considerations	Purpose
1.	Trial	First-time users as a percentage of the target population.	Distinguish "ever-tried" from "new" triers in current period.	Over time, sales should rely less on trial and more on repeat purchasers.
1.	Repeat Volume	Repeat buyers, multiplied by the number of products they buy in each purchase, multiplied by the number of times they purchase per period.	Depending on when trial was achieved, not all triers will have an equal opportunity to make repeat purchases.	Measure of the stability of a brand franchise.
1.	Penetration	Users in the previous period, multiplied by repeat rate for the current period, plus new triers in the current period.	The length of the period will affect norms, that is, more customers buy in a year than in a month.	Measure of the population buying in the current period.
1.	Volume Projections	Combine trial volume and repeat volume.	Adjust trial and repeat rates for time frame. Not all triers will have time or opportunity to repeat.	Plan production and inventories for both trade sales and consumer off-take.
2.	Year-on-Year Growth	Percentage change from one year to the next.	Distinguish unit and dollar growth rates.	Plan production and budgeting.

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2.	Compound Annual Growth Rate (CAGR)	Ending value divided by starting value to the power of 1/N, in which N is the number of periods.	May not reflect individual year-on-year growth rates.	Useful for averaging growth rates over long periods.
3.	Cannibalization Rate	Percentage of new product sales taken from existing product line.	Market expansion effects should also be considered.	Useful to account for the fact that new products often reduce the sales of existing products.
3.	Fair Share Draw	Assumption that new entrants in a market capture sales from established competitors in proportion to established market shares.	May not be a reasonable assumption if there are significant differences among competing brands.	Useful to generate an estimate of sales and shares after entry of new competitor.
4.	Brand Equity Metrics	Numerous measures, for example, Conjoint utility attributed to brand.	Metrics tracking essence of brand may not track health and value.	Monitor health of a brand. Diagnose weaknesses, as needed.
5.	Conjoint Utilities	Regression coefficients for attribute levels derived from conjoint analysis.	May be function of number, level, and type of attributes in study.	Indicates the relative values that customers place on attributes of which product offerings are composed.
6.	Segment Utilities	Clustering of individuals into market segments on the basis of sum-of-squares distance between regression coefficients drawn from conjoint analysis.	May be function of number, level, and type of attributes in conjoint study. Assumes homogeneity within segments.	Uses customer valuations of product attributes to help define market segments.

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7.	Conjoint Utilities and Volume Projection	Used within conjoint simulator to estimate volume.	Assumes awareness and distribution levels are known or can be estimated.	Forecast sales for alternative products, designs, prices, and branding strategies.

1. Trial, Repeat, Penetration, and Volume Projections

Test markets and volume projections enable marketers to forecast sales by sampling customer intentions through surveys and market studies. By estimating how many customers will try a new product, and how often they'll make repeat purchases, marketers can establish the basis for such projections.

$$\textbf{Trial Rate (\%)} = \frac{\textbf{First-time Triers in Period } t \textbf{ (\#)}}{\textbf{Total Population (\#)}}$$

$$\textbf{First-time Triers in Period } t \textbf{ (\#)} = \textbf{Total Population (\#)} * \textbf{Trial Rate (\%)}$$

$$\textbf{Penetration t (\#)} = [\textbf{Penetration in } t\textbf{–1 (\#)} * \textbf{Repeat Rate Period } t \textbf{ (\%)}] + \textbf{First-time Triers in Period } t \textbf{ (\#)}$$

$$\textbf{Projection of Sales t (\#)} = \textbf{Penetration t (\#)} * \textbf{Average Frequency of Purchase (\#)} * \textbf{Average Units per Purchase (\#)}$$

Projections from customer surveys are especially useful in the early stages of product development and in setting the timing for product launch. Through such projections, customer response can be estimated without the expense of a full product launch.