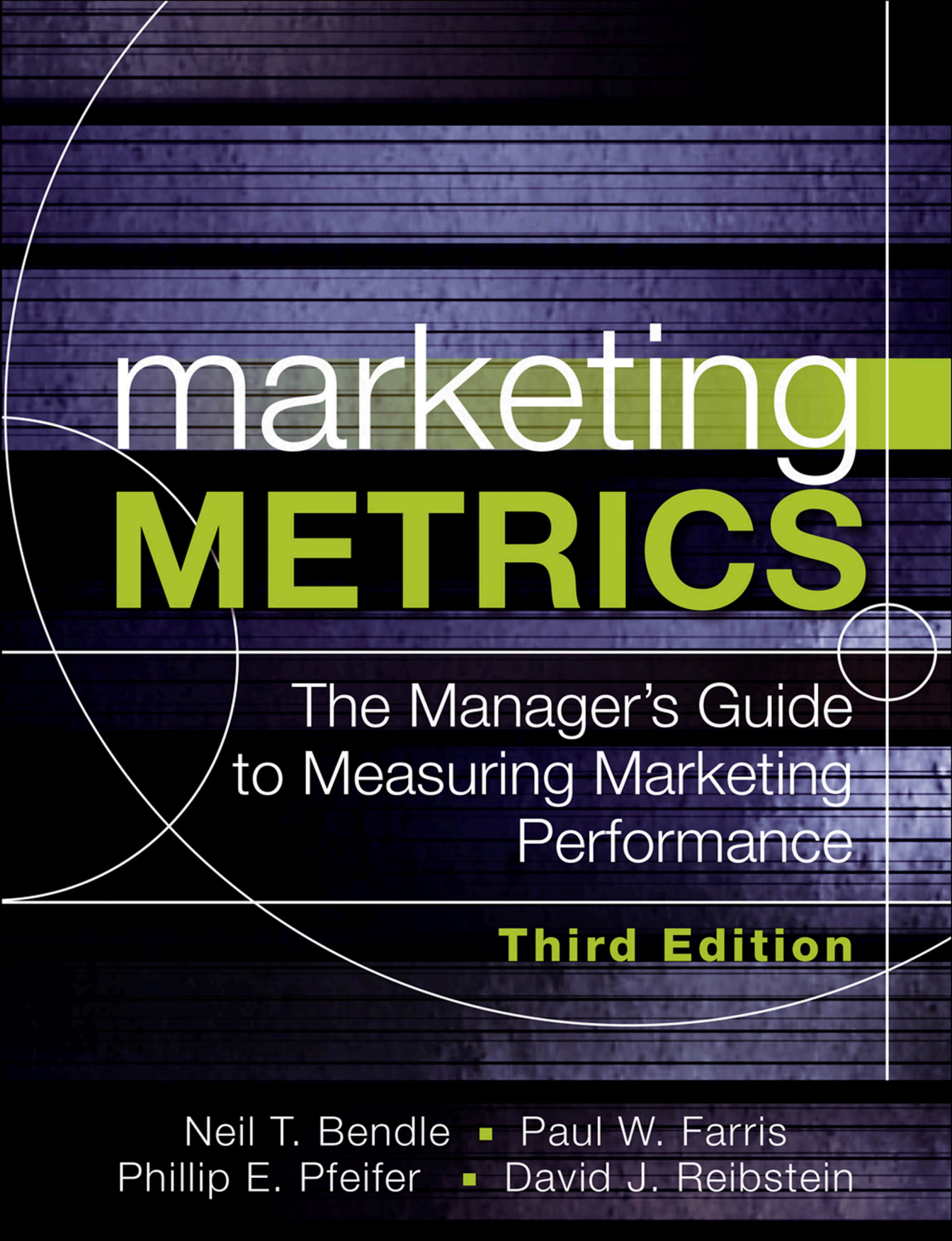

marketing
METRICS
The Manager's Guide to Measuring Marketing Performance
Third Edition
Neil T. Bendle ▪ Paul W. Farris
Phillip E. Pfeifer ▪ David J. Reibstein

MARKETING METRICS

THIRD EDITION

times these customers are expected to repeat their purchases within the period under consideration.

Repeat Volume (#) = Repeat Buyers (#) * Repeat Unit Volume per Customer (#) * Repeat Occasions (#)

This calculation yields the total volume that a new product is expected to generate among repeat customers over a specified introductory period. The full formula can be written as

Repeat Volume (#) = [Trial Population (#) * Repeat Rate (%)] * Repeat Unit Volume per Customer (#) * Repeat Occasions (#)

EXAMPLE: Continuing the previous office supplies example, the safety stapler has a trial population of 2.232 million. Marketers expect the product to be of sufficient quality to generate a 10% repeat rate in its first year. This will yield 223,200 repeat buyers:

$$\begin{aligned}\text{Repeat Buyers} &= \text{Trial Population} * \text{Repeat Rate} \\ &= 2.232 \text{ million} * 10\% \\ &= 223{,}200\end{aligned}$$

On average, the company expects each repeat buyer to purchase on four occasions during the first year. On average, each purchase is expected to comprise two units.

$$\begin{aligned}\text{Repeat Volume} &= \text{Repeat Buyers} * \text{Repeat Unit Volume per Customer} * \text{Repeat Occasions} \\ &= 223{,}200 * 2 * 4 \\ &= 1{,}785{,}600 \text{ units}\end{aligned}$$

This can be represented in the full formula:

$$\begin{aligned}\text{Repeat Volume (\#)} &= [\text{Repeat Rate (\%)} * \text{Trial Population (\#)}] \\ &\quad * \text{Repeat Volume per Customer (\#)} \\ &\quad * \text{Repeat Occasions (\#)} \\ &= (10\% * 2{,}232{,}000) * 2 * 4 \\ &= 1{,}785{,}600 \text{ units}\end{aligned}$$

Total Volume

Total volume is the sum of trial volume and repeat volume, as all volume must be sold to either new customers or returning customers.

Total Volume (#) = Trial Volume (#) + Repeat Volume (#)

To capture total volume in its fully detailed form, we need only combine the previous formulas.

Total Volume (#) = [Target Population * ((0.8 * Definitely Buy + 0.3 * Probably Buy) * Awareness * ACV) * Units per Trial Purchase] + [(Trial Population * Repeat Rate) * Repeat Volume per Customer * Repeat Occasions]

EXAMPLE: Total volume in year one for the stapler is the sum of trial volume and repeat volume.

$$\begin{aligned}\text{Total Volume} &= \text{Trial Volume} + \text{Repeat Volume}\\ &= 2{,}232{,}000 + 1{,}785{,}600\\ &= 4{,}017{,}600 \text{ Units}\end{aligned}$$

A full calculation of this figure and a template for a spreadsheet calculation are presented in Table 4.2.

Table 4.2 Volume Projection Spreadsheet

Preliminary Data	**Source**	
Definitely Will Buy	Customer Survey	20%
Probably Will Buy	Customer Survey	50%
Likely Buyers		
Likely Buyers from Definites	= Definitely Buy * 80%	16%
Likely Buyers from Probables	= Probably Buy * 30%	15%
Trial Rate (%)	Total of Likely Buyers	31%
Marketing Adjustments		
Awareness	Estimated from Marketing Plan	60%
ACV	Estimated from Marketing Plan	60%
Adjusted Trial Rate (%)	= Trial Rate * Awareness * ACV	11.2%
Target Population (#) (thousands)	Marketing Plan Data	20,000
Trial Population (#) (thousands)	= Target Population * Adjusted Trial Rate	2,232

Continues

Table 4.2 *Continued*

Preliminary Data	Source	
Unit Volume Purchased per Trial (#)	Estimated from Marketing Plan	1
Trial Volume (#) (Thousands)	**= Trial Population * Volume per Trier**	**2,232**
Repeat Rate (%)	Estimated from Marketing Plan	10%
Repeat Buyers (#)	= Repeat Rate * Trial Population	223,200
Avg. Volume per Repeat Purchase (#)	Estimated from Marketing Plan	2
Repeat Purchase Frequency ** (#)	Estimated from Marketing Plan	4
Repeat Volume (#) (Thousands)	**= Repeat Buyers * Repeat Volume per Purchase * Repeat Purchase**	**1,786**
Total Volume (#) (Thousands)		**4,018**

**Note: The average frequency of repeat purchases per repeat purchaser should be adjusted to reflect the time available for first-time triers to repeat, the purchase cycle (frequency) for the category, and availability. For example, if trial rates are constant over the year, the number of repeat purchases would be about 50% of what it would have been if all had tried on day 1 of the period.

Data Sources, Complications, and Cautions

Sales projections based on test markets will always require the inclusion of key assumptions. In setting these assumptions, marketers face tempting opportunities to make the assumptions fit the desired outcome. Marketers must guard against that temptation and perform sensitivity analysis to establish a range of predictions.

Relatively simple metrics such as trial and repeat rates can be difficult to capture in practice. Although strides have been made in gaining customer data—through customer loyalty cards, for example—it will often be difficult to determine whether customers are new or repeat buyers.

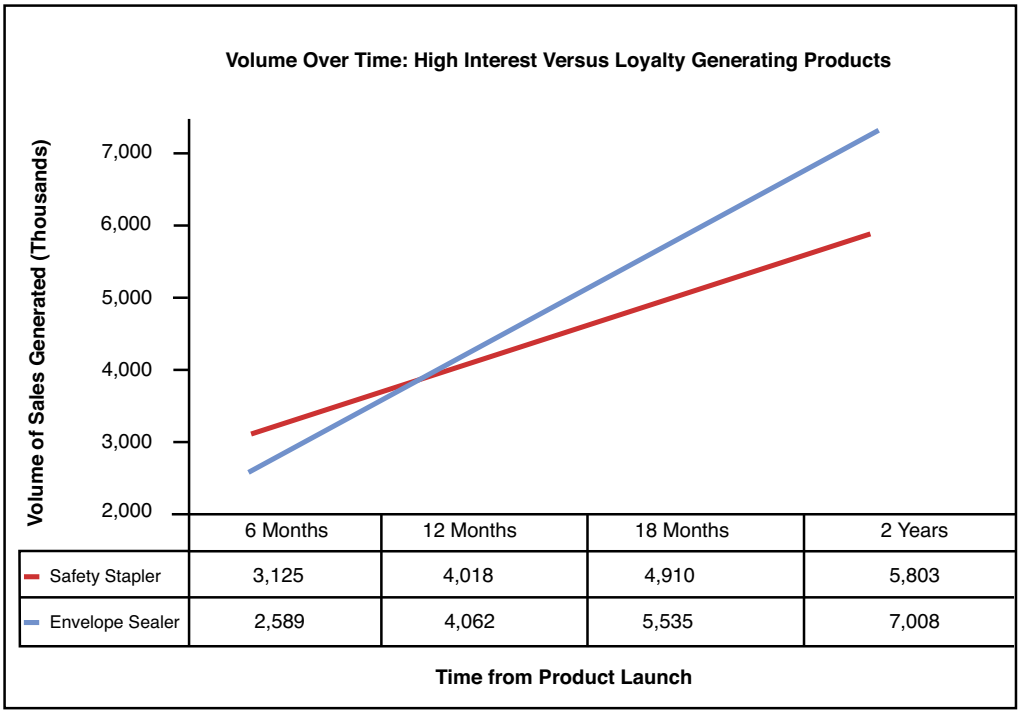
Regarding awareness and distribution: Assumptions concerning the level of public awareness to be generated by launch advertising are fraught with uncertainty. Marketers are advised to ask: What sort of awareness does the product need? What complementary promotions can aid the launch?

Trial and repeat rates are both important. Some products generate strong results in the trial stage but fail to maintain ongoing sales. Consider the following example.

EXAMPLE: Let's compare the safety stapler with a new product, such as an enhanced envelope sealer. The envelope sealer generates less marketing buzz than the stapler but enjoys a greater repeat rate. To predict results for the envelope sealer, we have adapted the data from the safety stapler by reducing the top two box responses by half (reflecting its lower initial enthusiasm) and raising the repeat rate from 10% to 33% (showing stronger product response after use).

At the six-month mark, sales results for the safety stapler are superior to those for the envelope sealer. After one year, sales results for the two products are equal. On a three-year time scale, however, the envelope sealer—with its loyal base of customers—emerges as the clear winner in sales volume (see Figure 4.2).

The data for the graph is derived as shown in Table 4.3.



	6 Months	12 Months	18 Months	2 Years
Safety Stapler	3,125	4,018	4,910	5,803
Envelope Sealer	2,589	4,062	5,535	7,008

Figure 4.2 Time Horizon Influences Perceived Results

Table 4.3 High Initial Interest or Long-Term Loyalty—Results over Time

		6 Months		12 Months		18 Months		2 Years	
Preliminary Data	**Source**	**Prod A**	**Prod B**	**Prod A**	**Prod B**	**Prod A**	**Prod B**	**Prod A**	**Prod B**
Definitely Will Buy	Customer Survey	20%	10%	20%	10%	20%	10%	20%	10%
Probably Will Buy	Customer Survey	50%	25%	50%	25%	50%	25%	50%	25%
Differences Highlighted in Yellow									
Likely Buyers									
Likely Buyers from Definites	= Definitely Buy * 80%	16%	8%	16%	8%	16%	8%	16%	8%
Likely Buyers from Probables	= Probably Buy * 30%	15%	8%	15%	8%	15%	8%	15%	8%
Trial Rate	Total of Likely Buyers	31%	16%	31%	16%	31%	16%	31%	16%
Marketing Adjustments									
Awareness	Estimated from Marketing Plan	60%	60%	60%	60%	60%	60%	60%	60%
ACV	Estimated from Marketing Plan	60%	60%	60%	60%	60%	60%	60%	60%
Adjusted Trial Rate	= Trial Rate * Awareness * ACV	11.2%	5.6%	11.2%	5.6%	11.2%	5.6%	11.2%	5.6%
Target Population (Thousands)	Marketing Plan Data	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000

Trial Population (Thousands)	= Target Population * Adjusted Trial Rate	2,232	1,116	2,232	1,116	2,232	1,116	2,232	1,116
Unit Volume Purchased at Trial	Estimated from Marketing Plan	1	1	1	1	1	1	1	1
Trial Volume (Thousands)	= Trial Population * Volume bought	2,232	1,116	2,232	1,116	2,232	1,116	2,232	1,116
Repeat Rate	Estimated from Marketing Plan	10%	33%	10%	33%	10%	33%	10%	33%
Repeat Buyers	= Repeat Rate * Trial Population	223.20	368.28	223.20	368.28	223.20	368.28	223.20	368.28
Repeat Purchase Unit Volume	Estimated from Marketing Plan	2	2	2	2	2	2	2	2
Number of Repeat Purchases	Estimated from Marketing Plan	2	2	4	4	6	6	8	8
Repeat Volume (Thousands)	= Repeat Buyers * Repeat Volume * Number of Repeat Purchases	893	1,473	1,786	2,946	2,678	4,419	3,571	5,892
Total Volume		3,125	2,589	4,018	4,062	4,910	5,535	5,803	7,008