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### The Flow Story

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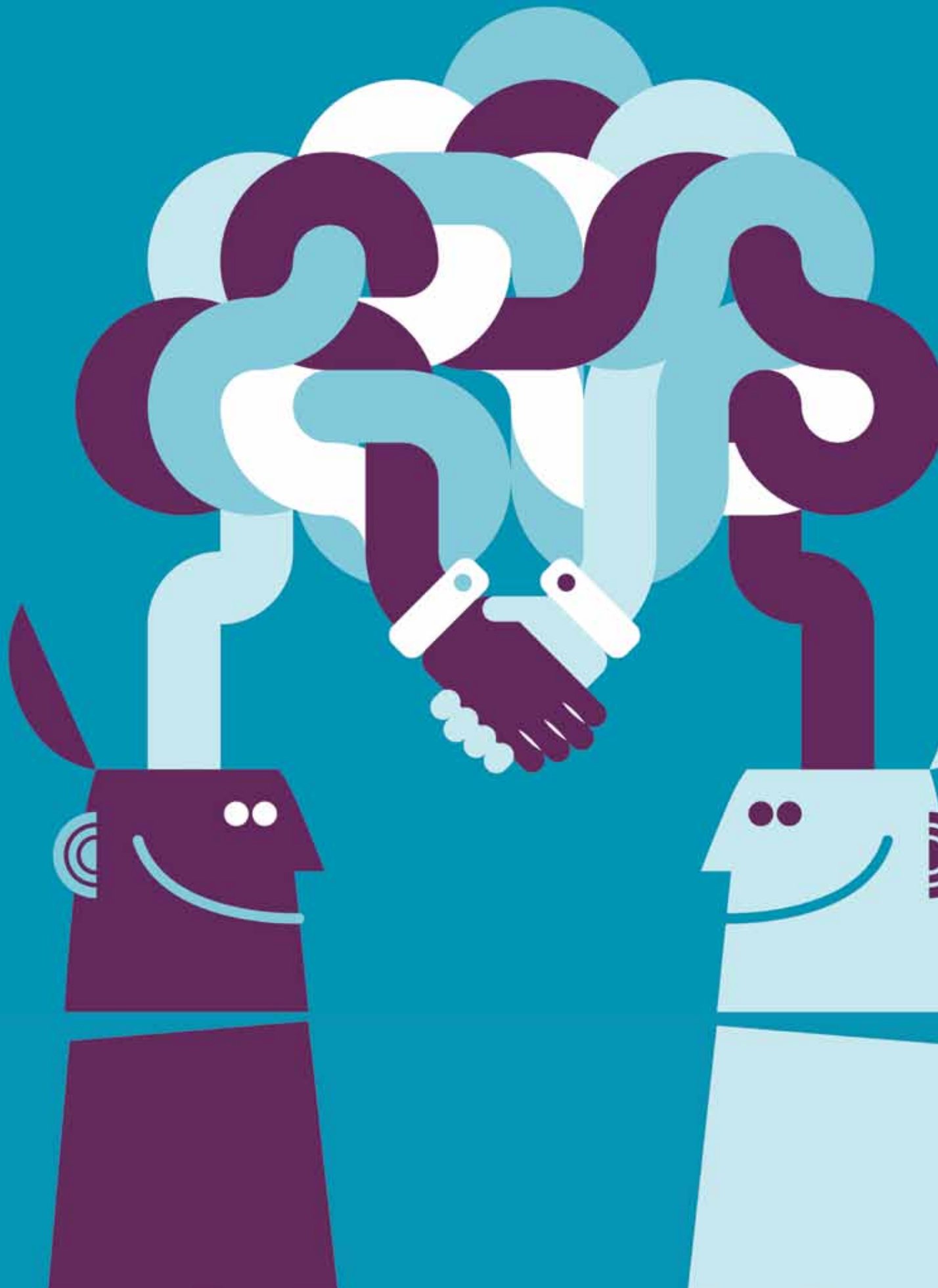
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# THE FLOW STORY

Marketing meets finance as executives balance building brand equity with enhancing revenue flow

*BY DOMINIQUE M. HANSSENS AND MARNIK G. DEKIMPE*

**M**ore so than ever, senior marketing executives are being asked to justify their plans and budgets in financial terms. What makes this task difficult is that the world of marketing deals with constructs and measures (such as consumer awareness and brand preference) that are quite different from those of finance (which is interested in revenues, cash flows and investment returns). Fortunately, new data sources and new analytical models are now available to help marketing executives with this daunting task.

Performance criteria are relevant to the entire enterprise, not just the marketing function. Consistent with the accountability challenge of senior marketing executives, we use financial criteria for that purpose, as they provide metrics that are comparable across the marketing mix (an internal criterion) and also relate well to investors' evaluation of the firm (an external criterion). As such, we treat marketing as an investment in customer-value creation and communication that, ultimately, must create shareholder value, as well. The mechanism connecting these two has been referred to as the "chain of marketing productivity," depicted in Figure 1 on page 39. Investor or shareholder value is created by

## BRIEFLY

- Examine the links between marketing investments and financial outcomes.
- Involve marketing executives in decisions that affect a firm's financial outlook.
- Draw careful distinctions between actions that enhance revenue flow and that build brand or customer equity.

expectations of future cash flows, which is defined as operating profit minus investment, where investment is the net change in the firm's capital. These cash flows derive from positive earnings (as distinct from top-line revenues, which may or may not result in bottom-line profitability) that drive the future returns to the investor's capital. They are transformed into a present value by using a discount factor that reflects the risk around these expectations.

Therefore, we argue that marketing performance models should ultimately relate to the creation of these cash flows, which have both a demand generation and a cost component. This puts a special condition on the models: The output variable should be intrinsically linked to financial behavior at the firm level. As such, the models must account for temporal patterns such as trends and volatility, and for a substantial forward-looking (expectation) component in the data. For example, one brand may face a bright financial future because it is lucky to compete

in a growing category, regardless of its marketing investments. Another brand may enjoy high sales lift because of effective price promotions, even if its brand equity may be eroding as a result. We must be able to distinguish between such scenarios so that we place the right attribution on marketing investments.

### Criteria for Good Performance Metrics

In the spirit of "what you can measure, you can manage," marketing performance metrics have emerged recently that help make marketing financially accountable and that steer marketing resource allocation in a productive direction. An overview of commonly used metrics is provided in Figure 2 on page 40. The figure illustrates that, despite the strategic importance of these metrics, only a subset is routinely reported to the senior level in the organization. As Srivastava and Reibstein (2005) point out, firms still use financial jargon at senior levels, and it will take some time before customer- or marketing-oriented metrics become commonplace (see Reference Section on page 44).

When choosing metrics, we start with the objectives of the measurement process. In marketing there are generally two classes of objectives: evaluation of the impact of past marketing actions and choice of future marketing actions (i.e., resource allocation). The former is part of the accounting and control function of the firm, and the latter is part of marketing strategy and planning. In addition, Quelch and McGovern (2006) have formulated desirable properties that performance metrics should have from a boardroom perspective (see Reference Section on page 44).

We expand on their view by focusing on metrics that are usable in a modeling context as well and, thus, are helpful for marketing performance evaluation and resource allocation. Using the following four criteria as a guide, we can create marketing models that support various performance metrics.

- **Financial relevance.** Firms need to create shareholder value, so any intermediate marketing performance metrics must ultimately be tied to that value.

- **Actionability.** It must be possible, at a reasonable cost, to collect data on the performance metric and to relate it analytically to marketing investments. This is where a number of empirically tested models from the marketing-science literature are called for, such as models of trial and repeat purchasing, models of the diffusion of innovations or models on the creation of brand and/or customer equity.

As an example, a market response model may link advertising spending to revenues, reflecting diminishing

returns to scale. Such a model can then be built into a simulation tool that shows when the brand is either over- or underspending on advertising, which is highly actionable for executives.

- **Stability.** Highly volatile metrics are difficult to interpret and manage and should be avoided where possible. For example, using sufficiently large samples for attitudinal metrics will prevent unduly large sample variation. The emergence of Internet-derived metrics (such as consumer search and sentiment metrics) is promising in this context, as they avoid having to sample and survey consumers.

- **Reliable long-term guidance.** This is the “leading indicator” aspect of a metric. For example, if an increase in a brand’s net promoter score (NPS) is followed by an increase in its customers’ repeat buying levels, that would make NPS informative for future brand health, and vice versa.

### Marketing Links to Finance: Marketing and Cash Flows

Shareholder value is driven by a flow metric that involves current and anticipated net (or “free”) cash flows. According to Srivastava, Shervani and Fahey (1998), marketing can enhance shareholder value in three different ways (see Reference Section on page 44):

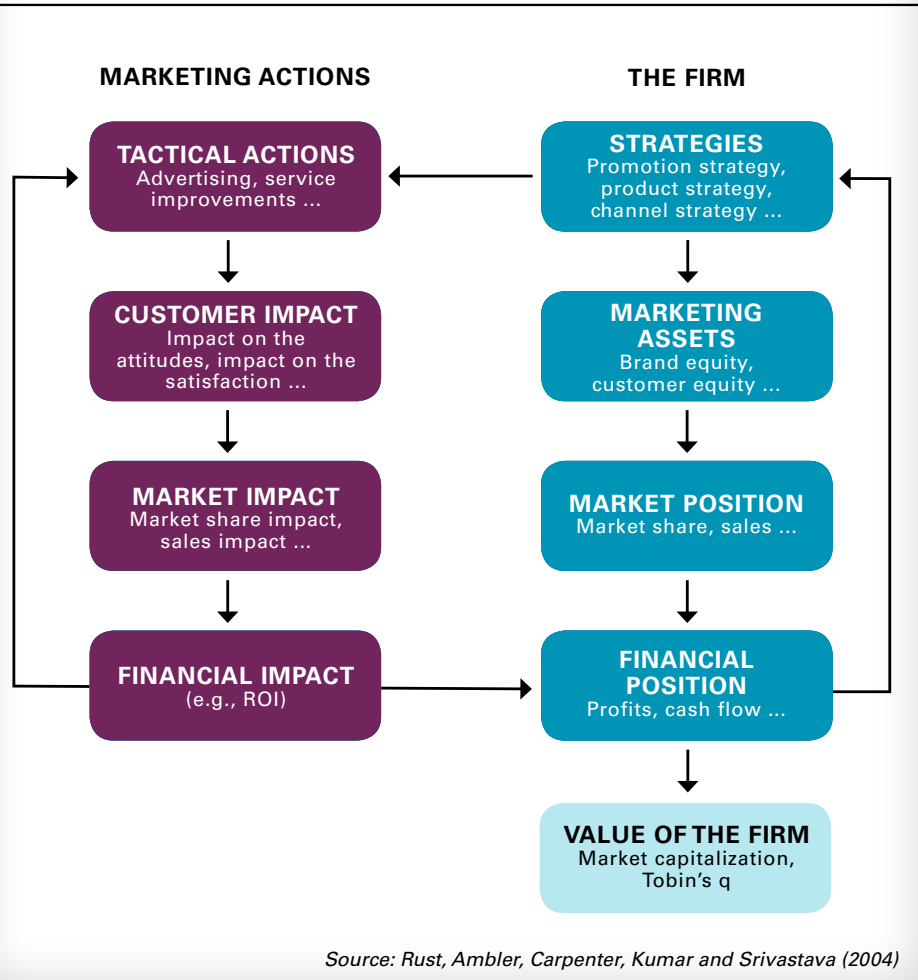
- By increasing the magnitude of the net cash flows: This is the most commonly measured marketing effect, Here marketing drives revenue in such a way that its cost is more than offset by the increase in gross margin.

- By accelerating the cash flows (i.e., faster profitability): For example, movie studios may invest heavily in pre-launch advertising to boost opening-weekend movie attendance. While total life-cycle attendance for the movie may be the same, revenues are obtained more quickly as a result.

- By lowering the volatility of the cash flows (i.e., safer profitability): As an example, strong brands with high levels of marketing support have been observed to be hurt less by economic downturns, and to recover faster from such downturns, compared to their weaker competitors. Thus the volatility of their cash flows over time may be lower.

These impacts are often indirect, as marketing’s primary role is in creating and stimulating demand, which is typically measured by sales or revenues. Thus, in order to arrive at marketing’s role in net cash-flow generation, we must start with models of sales or revenue generation, which are commonly known as market-response models or marketing-mix models. Market-response models should then be combined with the cost structure of marketing, which may be fixed (e.g., an advertising campaign), variable

FIGURE 1: THE CHAIN OF MARKETING PRODUCTIVITY



**FIGURE 2: PERCENT OF FIRMS REPORTING VARIOUS METRICS TO THE BOARD**

	<b>U.S. (n = 224)</b>	<b>Japan (n = 117)</b>	<b>Germany (n = 120)</b>	<b>U.K. (n = 120)</b>	<b>France (n = 116)</b>	<b>Overall</b>
<b>Marketing Metric</b>						
Market share	73	57	97	80	90	<b>79</b>
Perceived product/service quality	77	68	84	71	75	<b>77</b>
Customer loyalty/retention	67	56	69	58	65	<b>64</b>
Customer/segment profitability	73	40	74	65	59	<b>64</b>
Relative price	65	48	84	53	63	<b>63</b>
Actual/potential customer/ segment lifetime value	32	35	51	32	58	<b>40</b>
<b>Average</b>	<b>64</b>	<b>51</b>	<b>77</b>	<b>60</b>	<b>68</b>	

Source: Barwise and Farley (2003)

(e.g., sales commissions) or a combination of both (e.g., the costs of a sales-promotion campaign).

Current accounting standards require marketing actions to be expensed, as opposed to capitalized, so the profits and cash flows derived from marketing are equivalent. Therefore “marketing investment spending,” such as brand-building advertisements and customer-loyalty-building service enhancements illustrated in Figure 1, is only recognized as “investment” when the fruits of that investment are realized. These benefits may include increased unit sales, higher price premiums and/or a higher revenue base (i.e., the portion of revenue that is realized without marketing effort). Thus, the task of quantifying the investment qualities of marketing spending relies on tying financial performance data to these spending levels, which requires the skills of a marketing model builder.

The first task in this process is making a careful distinction between “stock” and “flow” performance metrics. This distinction, which originated in the system dynamics literature, is between variables representing accumulations (inventories) and changes in these accumulations (flows). A stock in and of itself does not produce cash, but it may enable or enhance future cash flows and, thus, plays an important indirect role for financial performance. For example, high customer satisfaction, or high brand recognition in and of itself, does not equate to revenue or cash flow. However, such assets may generate cash flows, for example, because consumers repeat-buy spontaneously, without additional marketing inducement. How does marketing create cash flows? We start by assuming a constant profit margin on products or services sold. The net cash flows (CF) for the brand in period t—excluding non-marketing fixed costs (overhead)—may be expressed as:

$$(1) \quad CF_t = S_t * \text{margin} - M_t$$

Where S stands for sales, “margin” is gross profit margin and M is marketing spending. The return on marketing M, sometimes referred to as ROMI, is then defined as:

$$(2) \quad \text{ROMI} = [CF(M) - CF(M=0)] / M$$

Note that ROMI is a ratio, which is useful for an ex-post assessment of the return of a specific marketing campaign or investment. Because marketing spending M is in the denominator, it is generally true that higher spend is associated with lower ROMI. So ROMI is not a metric that should be maximized, lest we perennially underinvest in marketing. See Ambler and Roberts (2006) in the Reference Section on page 44 for an elaboration.

Instead, the optimal marketing spend M\* may be derived from maximizing a cash-flow function such as (1) based on a sales response model. A sales response model is a statistical model showing how marketing spending contributes to top-line sales revenue, while controlling for external influences such as the economic environment, seasonality and competitive actions.

Importantly, the relationship between marketing spending and cash flow generation depends on (1) the natural size (the baseline) of the business, (2) the productivity of marketing spending and (3) the prevailing profit margin. Taken together, they fully determine optimal short-run marketing-resource allocation. At the same time, these determinants are exogenous; for example, it is assumed that more aggressive marketing spending has no impact on either the baseline or marketing effectiveness itself. Thus, the decision rule coming out of profit maximization



M\* may be thought of as a harvesting or reactive view of marketing resource allocation.

On the other hand, a prevailing belief among practitioners and academics is that well-placed marketing spending not only stimulates sales, but also builds future assets for the brand. In order to represent that capability of marketing, we must account for marketing-created brand assets that, in turn, will generate future cash flows, as illustrated in Figure 1. This is done by considering stock metrics of market performance in addition to flow metrics, as outlined below. (A more technical elaboration on this distinction, and on the various other points made in this article, may be found in Hanssens and Dekimpe (2008). See the Reference Section on page 44.)

**The Stock Story: Marketing and Brand Assets**

The demand or revenue generation process is naturally expressed as a flow metric. Similarly, flow metrics are used to express the ongoing cost of marketing. For example, a firm may routinely spend \$2 million a month on marketing communications, which result in an incremental \$3 million in gross profits. The net monthly cash flow due to marketing communication would be \$1 million, and the ROMI would be \$1 million/\$2 million = 50% (using Equation 2).

Ideally, these ongoing marketing expenditures will also create beneficial cumulative effects, which would be assessed as stock metrics. For example, the cumulative sales of a new technology durable, or installed base, is a stock variable that is instrumental in convincing other users to adopt the product as well. Such a stock generates future cash flows without additional marketing expenditures,

which is financially attractive to the firm. Similarly, many attitudinal measures are stock metrics, (e.g., the percent of the target market that is aware of a product or the overall price image of a retail store). Brand equity and customer equity, too, are stock measures. From a financial performance perspective, our task is to gauge the cash flows that are drawn from these stocks, independent of (or on top of)

current marketing expense. How can marketing create or enhance such stock metrics, and how can we represent such effects in a model? Analytically, this is the case when the revenue baseline is allowed to change over time (i.e., a higher level of firm revenue is obtained independent of current marketing spending). How many spontaneous telephone orders a firm receives or how much revenue a brand generates at regular price are two examples of baseline revenue.

**A PREVAILING BELIEF AMONG PRACTITIONERS AND ACADEMICS IS THAT WELL-PLACED MARKETING SPENDING NOT ONLY STIMULATES SALES, BUT ALSO BUILDS FUTURE ASSETS FOR THE BRAND.**

We have identified three sources of such expanded baseline revenue:

- **External forces.** This includes making strategic choices that expand the scope of the business, such as tapping new markets, new segments or distribution channels. Other baseline-driving forces are outside firm control, for example, rising disposable incomes in the target market or the entry of a new competitor in the category. Marketing's role here is mainly to be smart; that is, observe trends and use them to identify opportunities for the brand. An example is a brand that now reaps the benefits of a longtime "nature-loving" or "green" image because consumers have recently become more interested in sustainable enterprise.
- **Experiential quality to the customer.** When the

**BY EXTENDING MARKETING'S  
ROLE TO INCLUDE GROWING  
MARKETING ASSETS AS  
OPPOSED TO ONLY CASH FLOWS,  
A MORE COMPLETE SHORT-  
RUN AND LONG-RUN  
ACCOUNTABILITY  
OF MARKETING  
ACTIVITY DEVELOPS.**







product or service quality is high, the resulting customer satisfaction may increase repeat-purchase rates and/or word of mouth, even without additional marketing investments. This helps develop customer equity. An example is a brand that has made an industry-leading investment in 24/7 customer service, first by telephone and later via the Internet. Despite its high customer service cost, the brand enjoys higher revenue and profitability as a result of increased repeat purchasing behavior.

- **Brand equity building.** Higher equity brands tend to have higher baseline sales, all else being equal, including current marketing expenditures (see Ailawadi, Lehmann and Neslin (2003) in the Reference Section on page 44). While the sources of brand equity and customer equity may be very different, their financial outcomes for the firm are similar (i.e., higher baseline revenue). An example is a brand that is so uniquely positioned that even intense competitive promotions leave its baseline revenue unaffected.

“Stock” sources of cash flows are inherently long-run oriented and strategic in nature. For example, a brand’s quality reputation among customers tends to lag objective reality by several years, so it takes time for a brand to reap the financial benefits of investments in product quality (see Mitra and Golder (2005) in the Reference Section on page 44). By contrast, the optimal marketing spending level  $M^*$  only affects current (or short-run) flows, either through improved marketing effectiveness (e.g., a better media-mix allocation) or through more aggressive spending.

Both scenarios are typically tactical in nature. However, by extending marketing’s role to include growing marketing assets as opposed to only cash flows, a more complete short-run and long-run accountability of marketing activity develops. The marketing analytics literature offers a rich array of models for this, including diffusion of innovation models, brand equity and customer equity models.

## The Investor Perspective

Marketing can create cash flows for the firm, either directly or by contributing to stock variables that result in future cash flows even when new marketing expenditures are absent. The question remains, however, to what extent marketing’s contribution to these cash flows is recognized by an important external audience—the shareholder or investor. More specifically, we consider to what extent this contribution is reflected in changes in the firms’ market value. The valuation of public firms is captured in their stock price, or market capitalization (stock price times shares outstanding). The movement of these stock prices produces stock returns, which is the conventional profit measure for investors. Stock-return response modeling may be used to assess the degree to which marketing actions and industry conditions improve the outlook on a firm’s cash flows and thereby lift its valuation. These stock-return response models are similar to the internal market response models discussed previously, with one important point of difference: The dependent variable is future or expectations oriented. Indeed, stock prices may be viewed as consensus forecasts that react only to new information that is deemed relevant. Thus, the basic value assessed by internal financial performance models may already be contained in the firm’s existing stock price. As such, stock-return response modeling establishes whether the information contained in one or more marketing actions is associated with changes in expectations of future cash flows and, hence, stock price and returns (see Mizik and Jacobson (2004) in the Reference Section on page 44).

Important literature has developed around the impact of marketing actions on stock returns (see Sriniwasan and Hanssens (2009) in the Reference Section on page 44). Among other things, we have learned that the stock market is more long-term oriented than popular media lead us to believe. For example, increases in brand equity and product innovation are viewed positively by investors, whereas increases



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in price promotion activity are viewed negatively. This has been illustrated in the automotive sector (see Pauwels et. al (2004) in the Reference Section on page 44): All else being equal, when an automotive brand innovates (e.g., launching a new model), its stock returns increase because investors upgrade their expectations of future earnings. On the other hand, when a brand promotes (e.g., offering more purchase incentives), its stock returns decrease even though its short-term revenue and earnings tend to go up. These and other contributions demonstrate that Wall Street is more in sync with Main Street and Madison Avenue than we may think.

In terms of managerial implications, two important conclusions emerge. First, there are formal links between marketing actions and financial outcomes, and thus the marketing executive can and should participate in decisions that impact the financial outlook of the firm. Second, in so doing, the marketing executive should draw a careful distinction

between actions that enhance or protect revenue flow and actions that build brand or customer equity. The latter two are not easily visible in the short run, but the metrics and models we have discussed here provide an implementable framework to answer all-important questions about the financial return on marketing and the role of marketing in the modern enterprise. **MM**

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