Metrics for Linking Marketing to Financial Performance

Abstract

Marketers have been inundated with performance measures that reflect the impact of their marketing expenditures. These measures often reflect impact with the customer or the channel, such as awareness, preference, purchase intent, customer satisfaction and loyalty, share of requirements, shelf space, ACV (all commodity volume), and the like.

Unfortunately, these tend to be interim measures and do not reflect the financial impact on the firm. Marketers are being asked to translate marketing performance measures into financial consequences. For example, what is a point of customer satisfaction worth? Pressure is being placed on marketing to justify expenditures and to translate their measures into financial outcomes, which is the language used by the rest of the firm.

This paper will explore methods to better link marketing expenditures to financial outcomes. In the process, we discuss both what we know about the linkage between marketing and financial outcomes as well as what remains to be uncovered.

Keywords: Marketing metrics, financial consequences, brand equity, forecast variance

Introduction

Over the last six years, the number one research priority for MSI has related to marketing metrics and marketing productivity (MSI 2002). A detailed review of this topic includes such sub-areas as: assessing marketing program productivity/ROI, linking internal marketing program metrics (e.g., awareness) to external financial metrics (e.g., ROI), valuation of customers, valuation of brands, valuation of innovation, measuring short- and long-term effects, and global/international metrics and measures. Similarly, at the CMO Summit sponsored by MSI, Wharton, and McKinsey (2002 and 2003), one of the most critical topics raised by the CMOs (chief marketing officers) was the issue of demonstrating the financial consequences of marketing expenditures. During the downturn in the economy, the pressure has never been greater for firms to justify marketing expenditures—looking for ways to cut costs at every opportunity.

The issue is not that there is a dearth of marketing measures—quite the contrary. There are a myriad of metrics evaluating marketing performance. Typical marketing measures include: awareness, preference, purchase intent, share of wallet, customer satisfaction, loyalty, ACV (or other measures of distribution), or repeat purchase rate, just to name a few. The challenge has been to translate each of these into financial outcomes, the language most common throughout the rest of the organization. Certainly financial return is the dialogue required to access funds from the financial purse strings.

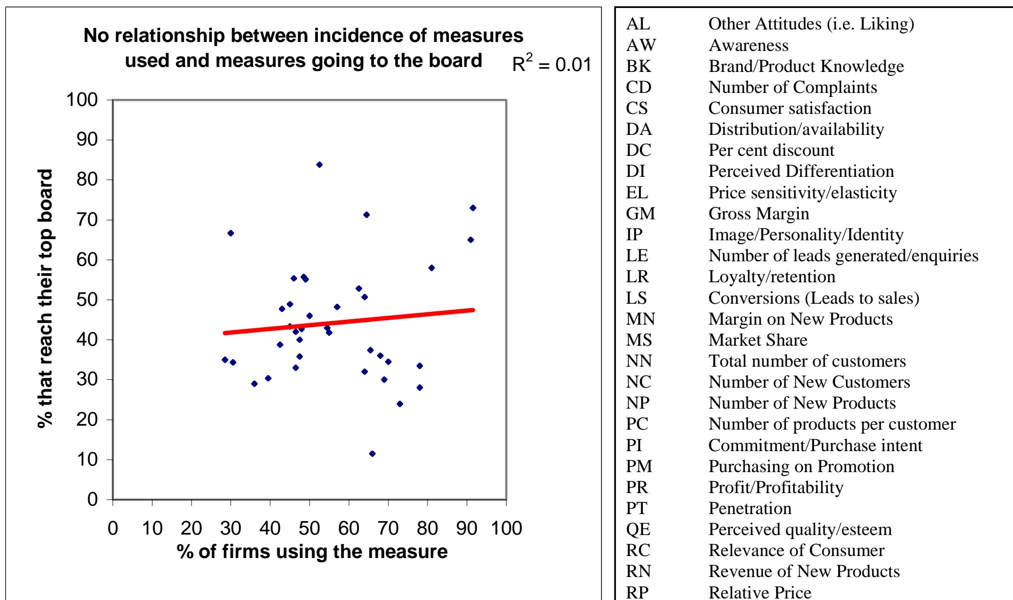
In some cases, financial consequences have been attributed to marketing expenditures. The introduction of marketing mix models has allowed marketers to connect spending to incremental sales and marketing share. With a direct connection to sales, it is possible to then show the financial implications to the firm. The biggest question in these cases, however, is the time dimension, since most of these studies show the short-term effects of marketing spending. The question becomes: What is the additional long-term impact? Put differently, most marketing mix models show an impact on sales *over* baseline, but few show the impact *on* the baseline as well, and few questions about the baseline are asked. Additional questions should be raised about sustainability of, and therefore risks associated with, cash flow streams linked to product-market portfolios. In other words, will profitability persist?

Commonly used measures

Recent work has shown some of the measures commonly used. An interesting study by Tim Ambler (2000) examines a number of marketing measures that are commonly collected. The sad news is that these measures are not used by the senior most level of the organization and corporate boards, as shown in Figure 1, nor are they commonly used by the financial managers of the organization (Figure 2). Executives at these levels tend to focus on shareholder value, profitability via sales and margins, and growth via new products.

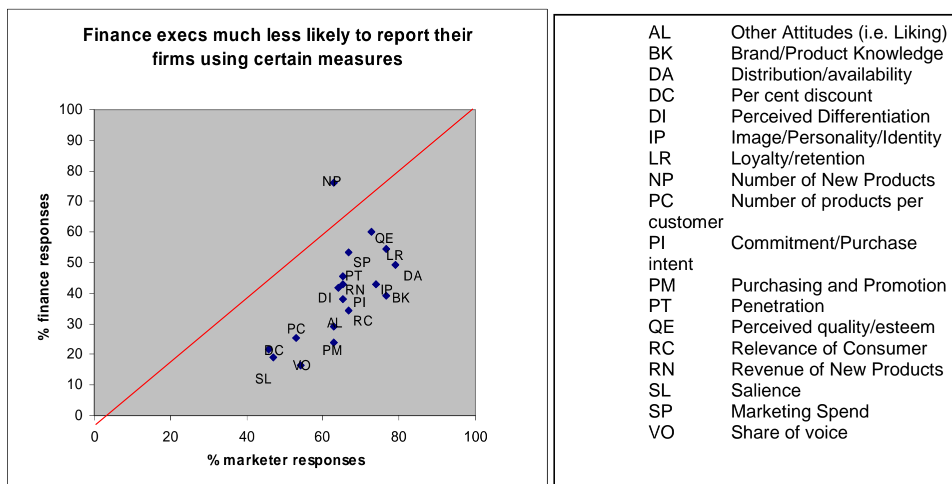
Figure 1

Common Marketing Measures, Use by Board



Source: Ambler, 2000

Figure 2
Common Marketing Measures, Use by Finance



Ambler, 2003 [need complete reference for this

Part of the reason why common marketing metrics are not being used by finance and senior members of management is that these measures do not fit with the normal language of the firm—an accounting-financial language. Hence, the challenge is to provide the translations of marketing outcomes to financial measures.

The interest in finding this link is greater than ever. The last several decades has seen a steady shift from firm valuations being based primarily on physical assets of the firm to being based on the firm's intangible assets (Lusch and Harvey 1984). Where once the value of a firm was predominantly (nearly 80%) determined by tangible assets, today, nearly half of the value of the firm is now based on intangible assets (Ip 2004). Three of the most highly valued intangible assets are intellectual property, brand, and the firm's customers. Two of the three are clearly marketing measures, and the third, intellectual property, could fall under the definition of product (and patents), and may even be connected. The interest in finding out how to measure the value of the driving elements of a firm's value is at an all-time high.

Marketing metrics and their link to financial outcomes

Given the high and increasing value of intangible assets, it is clear that marketing investments and the resulting assets (brands, customers, and channels) play an important role in determining a company's performance and financial value. Building upon the foundation laid by Srivastava, Shervani, and Fahey (1998) and Mizik and Jacobson (2003) to include recent advances (e.g., lifetime value of customers), we must examine links between building market-based assets (e.g., by increasing the strength of customer/brand and partner relationships), leveraging them to enhance marketplace performance, and assessing their contribution to shareholder value in terms of (1) financial performance (enhancing and accelerating cash flow, reducing risks) and (2) value created (market capitalization at the aggregate level, and brand and customer value at the strategic business unit level). As discussed by Ambler (2000), marketing performance measures typically fall shy of management needs. Clearly, marketers must learn how to take the next step—converting measures such as price/share premiums and loyalty/retention into measures such as customer lifetime value (CLV). Recent research (Reinartz and Kumar 2000, 2003; Rust, Zeithaml, and Lemon 2000; Rust, Moorman, and Dickson 2002) shows that we are beginning to move in this direction.

What do we know about marketing metrics and their link to financial outcomes? Given the importance of brand and customers, our first focus will be on what we know about the measurement of brand and its financial translation. We also have witnessed significant progress in recent years in understanding the value of our customer base and the solidity of the relationships formed. After this discussion, we will look at what else is known about the relationship between marketing actions and their financial consequences within a framework that summarizes the contributions of marketing to the creation of shareholder value. In the process, we discuss both what we know about the linkage between marketing and financial outcomes, what remains to be uncovered, and other questions worth addressing.

What We Know about the Impact of Marketing

Perhaps no marketing activity has been under greater pressure to demonstrate its contribution to company fortunes than advertising. Advertiser agencies focus heavily on the output of awareness as the appropriate measure. The rest of the organization is concerned with what a point of awareness means in terms of financial consequences. Mainstream advertising effectiveness research, sales response analysis, has resulted in questionable findings. Most studies that have tried to look at the value of advertising have shown a negative return (Lodish; ARF, ESOMAR). In retrospect, this should not be surprising. While the effects of advertising are typically long term, mainstream advertising effectiveness research, by focusing on short-run sales response analysis, has resulted in questionable findings. Short-term advertising effects are often drowned by price promotions. In any case, advertising has long-term, multi-period effects (Dekimpe et al. 2004). Examining its impact primarily in terms of short-term (weekly, quarterly **[monthly?],** or even quarterly) sales response is destined to understate the impact of advertising.

This tussle **[conflict?]** between short-term treatment and long-term (multi-period) benefits of customer acquisition and brand-building activities is depicted in Figure 3. Marketing actions such as advertising consumer promotions may be used to build awareness and trial/experience and, ultimately, and customer relationships or brands. These can then be leveraged to make future advertising and promotional allocations more productive (Boulding, Lee, and Staelin 1994; Srivastava, Shervani, and Fahey 1998). The multi-period impact of brand-building activities creates an interesting problem: While the cost of most marketing activities such as customer acquisition are expensed (i.e., paid for in the period they are incurred), longer-term benefits logically suggest that they should be treated as investments and amortized over time. That is, some advertising—say in the brand-building or product launch phase—might be considered as "investment advertising," while other maintenance advertising might be considered a recurring expense.

But this accounting standards debate is not likely to be resolved here or indeed without collaborative research between accountants and marketers. Nonetheless, it is important that top management be willing to pay for certain brand- and market-building over multiple periods and not expect every marketing undertaking to have positive short-term results. To accomplish this, it is essential we have measures not just of short–term consequences as derived from marketing mix models but also the long-term effects. When a company invests in a plant, there is a tangible asset which appears on the books for which there is a known depreciation schedule. While accounting practices do not yet allow us to show the long-term effects nor to depreciate marketing expenditures there is no reason we should not have such long-term measures and recognize these metrics as assets of the firm.

So, one of the major research questions which comes from this area is: How do we capture the long-term impact of marketing on value created by current marketing

expenditures? Understanding this would lead to a more reasonable assessment of the value of any marketing expenditure. We, therefore, turn our attention to brand equity and customer equity, two major elements of intangible, off-balance sheet assets.

Given the importance of brands and customers, it is not surprising that significant progress has been made in these contexts. Indeed, reports developed by marketing scholars as an outcome of MSI's Research Generation Workshop taskforces on "Brands and Branding" and "Customer Metrics" cover this ground in much greater detail so we will provide only a brief review.

Brand equity

Early work by Aaker (1991), Keller and Aaker (1993), Simon and Sullivan (1993) and Farquhar (1989) shed considerable light on the topic of the creation of a brand and its overall valuation. Additional work continues to cover the topic and is well summarized by Keller (1998, 2002) and Keller and Lehman (2003). Added attention has been brought to this topic by *Business* Week's annual publishing of the Interbrand brand valuation results. The Interbrand approach (discussed in Interbrand Group 1992), focused on exploiting the relationship between brand strength and on incremental earnings as well as on valuation metrics such as the price-earnings (PE) multiple. More recently, the Interbrand Group has modified its approach to examine the impact of brands on customer loyalty (therefore longevity), and ultimately risk and cost of capital that can then be used to discount incremental cash flows associated with brands. Others such as BrandAsset Valuator (Young and Rubicam 2003) focus on the relationship between brand strength and stature and profitability (margins, operating earnings, and economic value added (EVA)). While debates regarding which approach is better under what conditions are likely to continue due to the intangible nature of market-based assets, what is clear from these analyses is how important the investment in brand is in contributing to an important asset for the firm. It is also the case that *much of marketing expenditure that goes to building the brand is most significant on a long-term basis, while much of what we measure for marketing expenditures only captures the short-term effect*.

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While there has been considerable work to understand the value of a brand and how to measure a brand's equity, there remains a dearth of research on how market expenditures, and which marketing expenditures, contribute to a brand's value. Most of the time we assume it is advertising that is the prime driver of a brand's equity. It is rarely if ever measured and undoubtedly there are numerous other factors, such as consistent product experience, that contribute as well. Nonetheless, assessing advertising based solely on its short-term impact is a biased estimate of its true effects.

Customer equity

In recent years there has been considerable progress in this area. Much of it has centered on the calculation of the customer lifetime value (CLV) and aggregating this over the customer base to give a full sense of the value of the customer base. The idea was well developed by Dwyer (1997) and Berger and Nasr (1998). Jain and Singh (2002)

extend the definition of the lifetime value by including in the definition the acquisition costs. Reinartz and Kumar (2000, 2003) and Rust et al. (2003) have been the leaders in thinking about how to incorporate the value of the customer base into a concept of *customer equity.*. The present value of these cash flows (CLV), which obviously depends heavily on the retention rate, is easy to analyze. As shown by Hogan et. al (2002), CLV in its simplest form can be estimated by assuming a constant defection rate d, a discount rate k, and a constant net margin (profits – retention costs) of m, the value of the annuity attributable to customer reduces to:

$$CLV = m / (k + d). \quad (1)$$

Management of CLV, and its prime determinant customer retention, has received considerable attention from marketing scholars in recent years since Reichheld (1996) first demonstrated the financial benefits of retention. We can incorporate the value of the up-selling opportunity into the base equation by adding a term for individual's growth rate, g. This growth rate can be used to value cross-selling opportunities to an existing customer. To the extent a constant growth rate g is a reasonable assumption in the near term (obviously untenable over the long run) and g is less than $(k + d)$, customer value is approximated by:

$$CLV = m / (k + d - g). \quad (2)$$

One of the nice aspects of CLV is that it is a measure of the short-term as well as the long-term value of the acquisition and retention marketing expenditures. Again, CLV is not a measure that appears on a balance sheet, but rather is a significant intangible asset clearly being valued by investors.

Customer satisfaction

Obviously, based on the CLV calculation, the retention component is the most critical element. Customer satisfaction should be a good indicator of retention. Many authors have written about the relationship between customer satisfaction and retention. Most recently, Reichheld (2004) has found there is a strong relationship between customer satisfaction and retention, but it is certainly not linear. Interestingly, this relationship is not always found (Fornell 1995). There are many possible explanations for this phenomenon:

- One simple explanation is found in the definition of satisfaction. Given it is generally defined as meeting or exceeding expectations, an easy way to increase customer satisfaction is to reduce expectations. As such, satisfaction levels may go up, but customer interest and willingness to buy will plummet.
- A second explanation can also come in the way satisfaction is often measured, that is, within existing customers. A firm that loses its dissatisfied customers will find satisfaction levels rise at the same time as market share drops.
- Farris and Reibstein (1995) provided a third possible explanation. Leading market share brands gain the greatest distribution. This results in many cases where the

shopper cannot find their preferred brand, and have to settle for buying something other than what they wanted. It would not be surprising to find their satisfaction levels being lower than if they had found their preferred brand. The burden of this is felt for the brands with the largest market share and the greatest resulting distribution. This results in market share and customer satisfaction being negatively correlated.

There have been a number of other studies, which have found that customer satisfaction is certainly not linear with sales. Looking across several industries Larcker and Ittner (2004) have found there is an asymptote that is achieved and raising satisfaction behind that point yields very little. While progress has been made in examining the underpinnings of brand and customer equity, much remains to be done.

Today, many, if not most, companies measure their levels of customer satisfaction. However, little has been developed which informs us about which marketing instruments contribute to customer satisfaction and how much. More of the research, as mentioned above, takes us to understanding how customer satisfaction lends to retention and hence, back through CLV, or directly to shareholder value.

Examples of questions to be addressed:

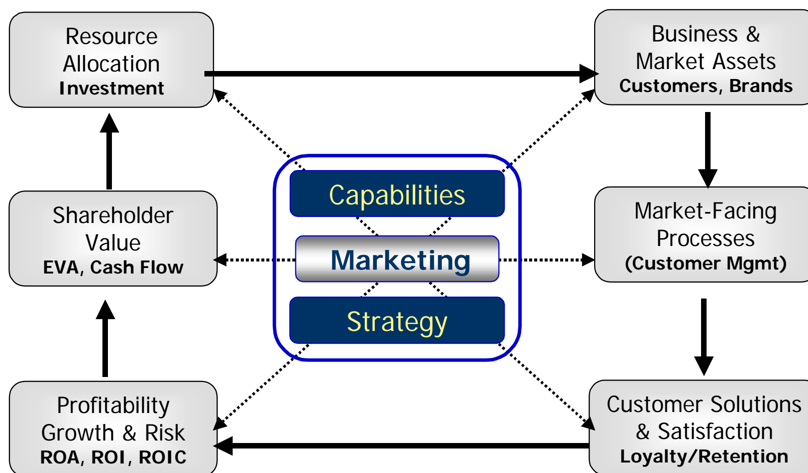
- How are brand and customer equity different? Similar?
- Because advertising effectiveness is generally measured on levels of awareness, what is the relationship between awareness and sales?
- Since we have several different ways to measure a brand's value, what is the relationship between marketing spending and brand value?
- What is the financial value of increasing distribution or customer preference?
- What is the impact of customer loyalty on risk? Can average lifetime of customers be used to depreciate customer acquisition costs?

Marketing Metrics and Financial Performance—The Shape of Things to Come

Despite the importance of marketing metrics, approaches to measure marketing performance both from practitioners and researchers have been criticized because of their poor diagnostic capabilities and their focus on the short-term outcomes (Anderson 1982; Dekimpe and Hanssens 1995). As discussed earlier, marketing performance measures typically fall shy of management needs (Clark 1999; Ambler 2000; Brodie, Glynn and VanDurme 2002). Clearly, marketers must learn how to take the next step—converting measures such as price/share premiums into cash flow and brand loyalty into a higher proportion of cash flows from recurring business and, therefore, lower risk. The essence is captured in Figure 3 adapted from Srivastava, Fahey, and Christensen (2001).

Figure 3

Impact of Market Assets and Processes on Firm Performance and Value



Adapted from: Rajendra Srivastava, Liam Fahey, and Kurt Christiansen (2001), "RBV and Marketing," *Journal of Management* ***[volume?]***

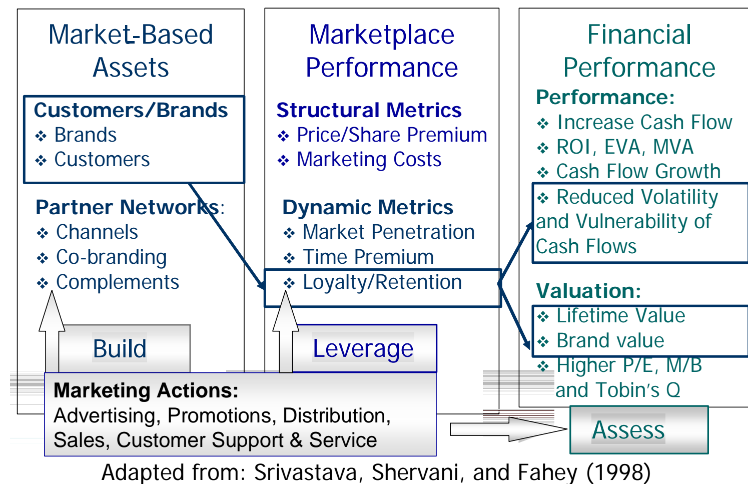
Companies must allocate resources to invest in market-based assets and capabilities (Day 1994). These investments must be justified in much the same terms as other business assets. For example, investments in information technology can be leveraged to enhance efficiency of supply-chain processes (reduce costs as a consequence of lower inventories), drive sales (e.g., via better prospecting based on data-mining), and lead to more satisfied customers (e.g., by reducing response time in providing customer solutions). In a similar fashion, investments in market-based assets can then be leveraged to support superior customer value delivery processes. The resulting customer value can be "extracted" by vendors in terms of financial benefits such as higher market share and price premium and lower distribution costs (stronger brands provide higher traffic levels that can be used manufacturers to negotiate lower retail margins).

These in turn should lead to outcomes desired by shareholders—profitability, growth, and sustainable competitive advantages (hence, lower risk or vulnerability). For example, pharmaceutical companies traditionally made investments in marketing support for new drugs via communications and branding when patents were about to expire in order to extend the life of drug by sustaining higher margins and revenue beyond patent expiration. However, in these days of substantially shorter life cycles (competitors might develop drugs with equal or better performance characteristics before the patent expired), it is becoming important to invest in marketing and branding activities at the launch stage for two reasons—first, to accelerate time to market in order to recoup cash flow at higher margins as soon as possible and second, to provide protection against ever-faster

competitive entries. The current battle between Viagra, Cialis and Levitra provide an interesting case study.

In an effort to understanding the link between marketing activities that result in customer satisfaction and financial performance and market value, the first step might be to better understand how marketing actions influence marketplace performance. Building upon the framework suggested by Srivastava, Shervani, and Fahey (1998) and Mizik and Jacobsen (2003) to include recent advances in customer lifetime value (CLV) research, Figure 4 summarizes marketing metrics across three levels of measurement. First, marketing investments should result in brands and customer-installed bases and other market-based assets such as channel and other partnerships. The relevant metrics at this level of measurement (the left-hand side panel in Figure 4) would be measures of the strength of these relationships (e.g., brand awareness, preferences, risk perceptions, trust, loyalty). These relationships will typically lead to favorable marketplace consequences described in the middle panel of Figure 4. They serve to augment cash flows via a combination of price and share premiums, faster market penetration, reduced distribution, sales and service costs, and increased loyalty and retention. While this was a good start and several of these links have been established, one must yet convert these measures to the language and metrics used by both financial and senior managers. These metrics are summarized in the right hand panel in Figure 4. They include measures of short-term performance such as growth in share, turnover, and cash flow as well as appropriate accounting ratios and measures (ROI, EVA; to be discussed subsequently). They also include longer-term measures of value. Valuation may be at the customer level (e.g., lifetime value of customers), the product level (brand value) or at the firm level. As discussed later in this paper, most valuation metrics are based either on discounting of projected cash flows or via valuation ratios (market price-to-sales, price-earnings multiples, or market-to-book ratios).

Figure 4
Linking Market-based Assets, Market Performance, and Financial Performance

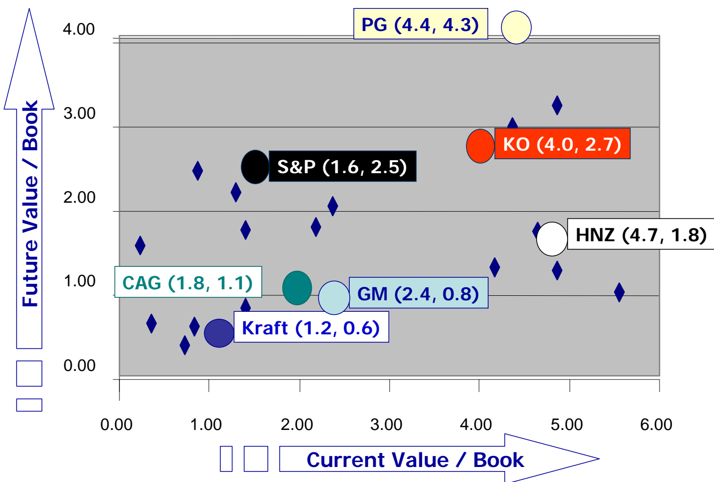


Adapted from: Srivastava, Shervani, and Fahey (1998)

While marketers typically examine the impact of brands on short-term performance via metrics such as price or share premiums, some of the real benefits of brands are along the dimensions of managing risks (e.g., by making customers less available to competitors in the future) and facilitating growth (e.g., by leveraging brands in new category and geographical spaces)—inherently long-term benefits. Just as intangible, off-balance sheet assets (e.g., brands, customers, and intellectual property) have been capturing an increasingly larger proportion of a company's market capitalization, less and less of this value can be explained by short-term metrics. This is illustrated in Figure 5 where current value of companies relative to book value is plotted on the horizontal axis and future value relative to book value on the vertical axis. The current value is determined by assuming that existing levels of a firm's cash flow would continue in perpetuity. The future value is estimated by simply subtracting the current value estimate from market capitalization.

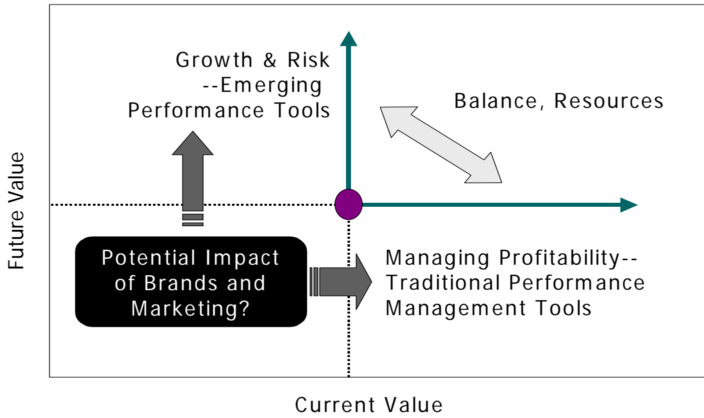
As shown in Figure 5 capitalization of this income stream would explain less than 40% of the value of companies on the S&P 500. While companies such as Kraft and General Mills are selling at two to three times book value, P&G's valuation is a lofty 8.7 times book value, almost equally divided in current value and future expected performance. In other words, while senior managers complain that investors put far too much on short-term quarterly earnings, the market actually puts the majority of value on the ability to manage growth and risk in the future. This is not surprising given the trends related to shorter life cycles, globalization, innovation, and competition—all signaling darker clouds on the horizon.

Figure 5
Decomposing Market-to-Book Ratio into Current and Future Components



Naturally, companies must balance investments that nurture both short-term performance and long-term growth and risk (Figure 6). These dimensions correspond to the components of shareholder value proposed by Srivastava, Shervani, and Fahey (1998) that have shaped much of marketing thinking on shareholder value creation: *enhancing cash flows* (managing profitability), *accelerating cash flows* (managing growth) and *reducing vulnerability and volatility of cash flows* (managing risk). We examine each of these in turn. In doing so we discuss both what we know in terms of good practices as well as what we do not know in terms of research opportunities.

Figure 6
Architecting Shareholder Value



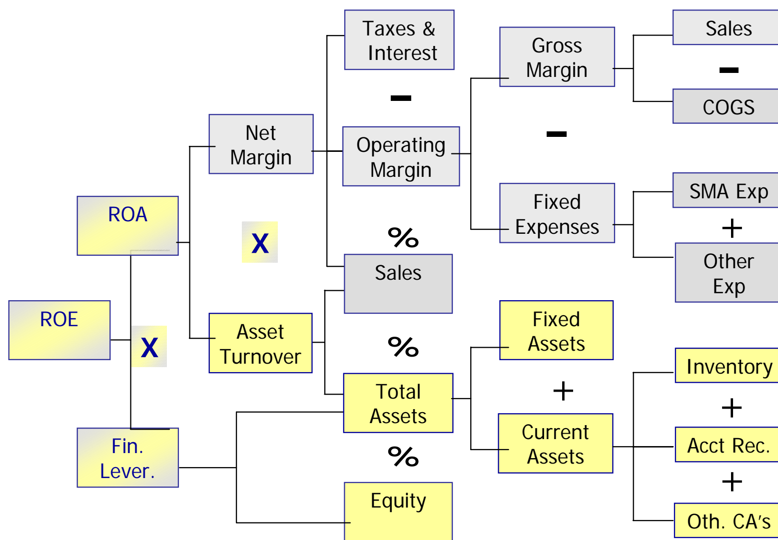
How might different market-facing processes enhance, accelerate, or reduce the risk of cash flows? Since marketing is intimately involved with three customer or market-facing processes (Day 1997; Srivastava, Shervani, and Fahey 1999) that drive

customer value – product innovation, supply-chain/operational excellence, and customer/value-web management – it is also worth examining the link between these processes and shareholder value.

Enhancing cash flows

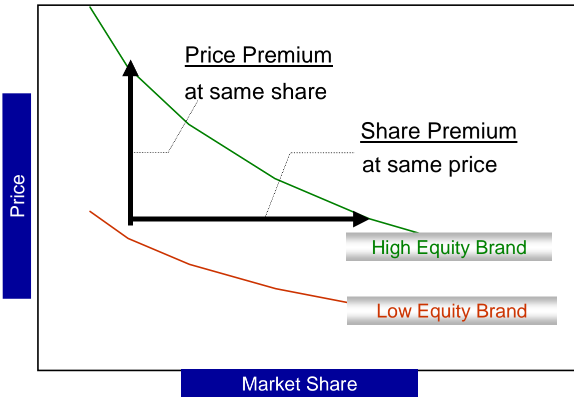
The role of marketing activities and enhancing short-term profitability and cash flows is best captured within the framework of the DuPont model, now credited to Dell and Wal-Mart (Figure 7).

Figure 7
Managing Current Profitability Using Traditional Performance Management Tools: The DuPont Model



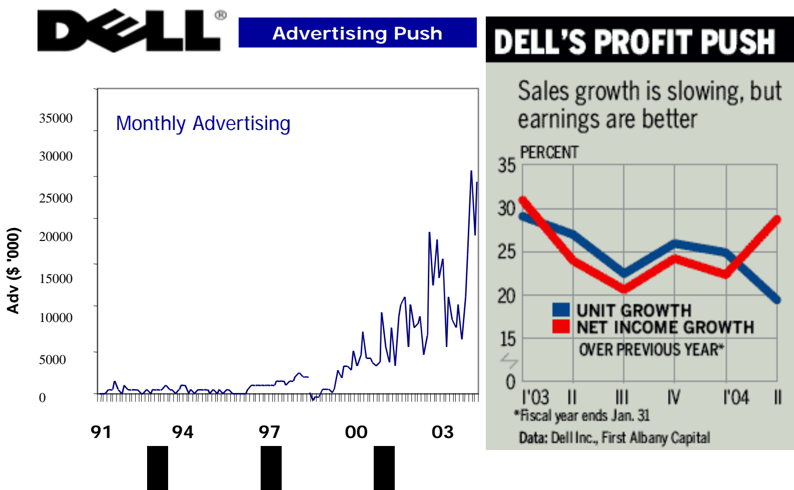
The DuPont model integrates elements of the income statement (shaded) with those of the balance sheet (white). By managing net margins (margins/sales) and asset turnover (sales/assets), companies can "engineer" return on assets (ROA). Marketers have long argued that, in the aggregate, strong marketing investments and performance will result in higher margins as well as turnover as expressed in a "revenue premium" measure of brand equity (Figure 8). Ailawadi, Lehmann, and Neslin (2003) provide an excellent review and well as strong support for the concept. Brand equity and customer loyalty help companies avoid slipping into the commodity trap so prevalent in firms' approaches to managing customer solutions. In both cases, margins, turnovers, and cash flows are enhanced.

Figure 8
Measuring Brand Equity: Share, Price, and Revenue Premium



It is important to understand that you have to spend money to make money. It is past investments in customer communications, support, and superior product quality that lead to customer trust and brand equity. The value of higher equity brands may be tapped in terms of a price or share premium. Which you decide to do is a matter of strategy. For example, Dell computer has long focused on penetration pricing and building market share. Of late, given the slowdown in volume growth, it has concentrated more on building a premium brand and tapping that equity via higher prices and margins to increase growth in cash flows (Figure 9).

Figure 9
Dell's Advertising Investment and Profit Push



The more interesting implications of marketing activities on profitability are, however, in managing the details. For example, let's look at the implications of Dell's 5 days of inventory compared to (say) 60 days for HP. On the surface, the difference in

inventory carrying cost is (55 days which equals 1/7 of a year approximately 1.5%, if the cost of capital were about 10%. This does not seem critical. However, since the inventory depreciation rate due to obsolescence is put at a conservative 0.5% per week, that represents another 0.5*8 weeks = 4.0 percent disadvantage for HP. Thus, Dell's direct channel affords it a (1.5 + 4.0 =) 5.5 percent advantage. Similarly, it is possible to factor in the value of "higher quality customers" (e.g., customers who are less likely to default on credit) into the net margin and ROA.

While marketers are familiar with the DuPont model, one might contend that, more often than not, they choose to ignore its consequences. The marketing literature is replete with articles logics and methodologies for driving sales and revenue. It is indeed rare that one finds one on the impact of marketing on working capital. Because most salespersons are rewarded on volume and revenue metrics, it not surprising that they deliver revenue, not cash flow. If the objective is to maximize volume, sales people are likely to reduce prices whenever possible, promise faster delivery, and figure receivables are someone else's problem. However, each of these objectives tend to undercut margins *and* reduce asset turnover. Customers with less predictable demand who want faster deliveries result in inventory levels. Customers who do not pay in time result in receivables. By decreasing the numerator (margins) and increasing the denominator (assets), these sales tactics ultimately reduce ROA.

To summarize, marketers focus on metrics such as level and growth in sales and market share to report the impact of their actions. This should be extended to include a discussion of the impact on margins, working capital, and cash flow.

Marketing dashboard

Many may believe that marketers are already relating marketing activity to financial outcomes. The common form of doing so is via marketing mix models of the type produced by IRI and AC Nielsen. They relate sales to marketing expenditures. Yet there are several things missing from these marketing models.

The typical output from a marketing mix model shows a baseline and the incremental impact of the marketing variables on sales. There is no attempt to show where the baseline comes from and how the current levels of expenditure may be related to the marketing expenditures. Thus, the long-term effects of any marketing expenditure is not captured, and in fact, is ignored.

A firm's marketing investments are at risk when its investment decisions are based on short-term accounting indicators that may or may not capture their benefits. Mainstream advertising effectiveness research, sales response analysis, has resulted in findings of questionable return. As mentioned earlier, short-term advertising effects are often drowned by price-promotions. Unfortunately, studies examining the long-term impact of marketing investments are rare.

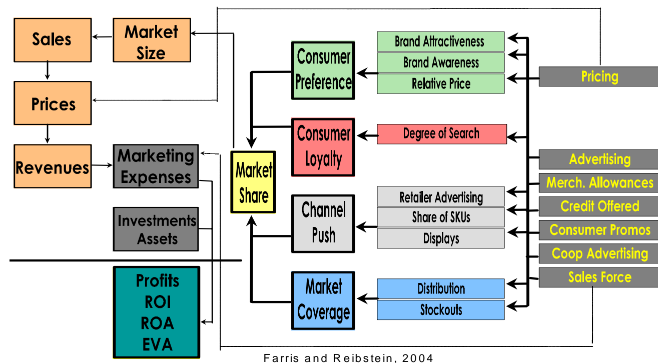
The contributions of the marketing expenditures to create brand, a customer base, or a distribution relationship are also missing except for what is captured in short-term sales. What we have argued throughout this paper is that marketing expenditures have long-term effects, and not just directly on sales. Further, all the other measures typically captured by marketers are never accounted for in these models.

Ultimately, what is necessary is to build a "marketing dashboard" (see Figure 10). wherein the marketing expenditures can have short-term effects on intervening constructs, such as awareness, preference, distribution, loyalty, brand value, etc., as well as a direct impact on short-term sales. This way we can understand the "flow" of marketing throughout the system and its impact.

Companies that are investing in dashboard development are doing so in order to have (1) a clear and finite set of objectives that are communicated throughout the firm, (2) an explicit articulation of how constructs are interrelated, and (3) one place where all the measures come together.

The metaphor of a dashboard is fitting: We drive a car with four or five real-time metrics that capture the elements necessary to navigate a much more complex system of interrelated functions. There are many other complexities operating under the hood, and all of them must be understood. But, to operate the car on a daily basis, we need to have our eye on a finite number of metrics to make sure we are on the right course.

Figure 10
The Marketing Dashboard



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Limitations of the DuPont model

Because the DuPont model was first developed in the 1930s when the vast majority of GDP was based on manufacturing, one must contend with its vagaries. First, marketing expenditures are listed as expenses rather than investments. Thus all marketing activities must typically "pay" for themselves within a short timeframe. As discussed earlier, it seems hardly fair that market-based assets have a depreciation schedule of one

year (i.e., are expensed) while they stay productive for several years. Indeed, it has been argued that market-based assets such as customers and brands are the only assets that appreciate, not depreciate! (Lusch and Harvey 1984).

Second, managers often focus much-too-much attention on managing ROI (or, in the case of marketing managers, ROMI) rather than managing the business. Interestingly, strong brands, when leveraged in down markets, can wrest market share from beleaguered competitors. (Buzzell and Gale 1987) Thus, adverse economic conditions that may lead to lower ROMIs often result in reductions in marketing investments. Ironically, for strong companies, this may be the best time to go on an offensive because less robust competitors may be weaker still. It is also the case that much of the impact of marketing is on spending relative to competition. During weak economic times, competitive spending using the same logic would be down. Thus, high levels of relative spending are easier to achieve. This reasoning, among others, has resulted in a debate on the relative value and usefulness of: R Over I" versus "R minus I," with strong advocacy for the latter (Doyle 2000; Ehrbar 1998). The latter, R minus I, is often measured via EVA. *EVA is the net economic value added and represents cash flow from an opportunity adjusted for the cost of resources used to generate the cash flow.*

Third, all accounting-based measures (including the DuPont model) are retrospective. This may be fine in mature, stable markets where the future is expected to be similar to the past. However, in dynamic markets subject to product and marketplace changes, looking at what is happening may not be the best for planning forward. By its nature, the tendency to look at what has happened, not what will happen, places too much weight on short-term results.

Finally, performance metrics such as ROA and EVA ignore risks and sacrifice future opportunities for short-term earnings. Because risk is a principal determinant of a firm's (brand's) equity, this omission is critical (Martin and Petty 2000). They tend to undervalue prospects that are inherently longer-term bets. Thus, new products or emerging markets, which typically have lower net margins and turns and higher marketing investments, tend to lose the battle of resources to mature and established products and markets. In effect, companies are more likely to invest in incumbent products and markets, starving future opportunities if they focus on short-term tools like the DuPont model or EVA. Prospects with longer-term payoffs must be evaluated by measures that give credit to such payoffs – such as net present value.

Despite the reservations associated with short-term performance measures, they represent the most frequently used metrics. Thus, marketers must learn to use them to justify request for resources. They must also learn to argue against their use when inappropriate – that is, when the payoffs from market-based investments are clearly long term. We must note that, increasingly, finance and accounting professionals are moving towards cash flow rather than earnings-based metrics (e.g., CFROI rather than ROI) as earnings-based measures are subject to manipulations related to depreciation (Martin and Petty 2000). Additionally, as marketing has long-term effects, we need to learn how to better capture and express forward-looking benefits, such as through NPV measures.

Questions that follow were raised during the MSI Research Generation Workshop in the context of enhancing cash flows.

<u>Examples of questions to be addressed:</u>

- What is the relationship between typical marketing metrics and financial outcomes? What proportion of ROA can be explained by marketing variables?
- Since advertising effectiveness is generally measured on levels of awareness, what is the relationship between awareness and sales?
- We have several different ways to measure a brand's value; what is the relationship between marketing spending and brand value?
- What is the financial value of increasing distribution or customer preference?
- What is the relative contribution of marketing activities compared to, say, manufacturing towards margins and turnover?
- How the brand contributes to (or inhibits) generating greater cash flows
- How key brand attributes affect value for customers (marketplace performance) and thus cash flows
- What is the carryover rate for advertising (marketing) capital from one year to another?
- Is there a linkage between customer satisfaction and cash flows? Is this relationship linear?
- How does Return on Marketing Investments RO-MI stack up against RO-IT or RO-R&D?
- When is ROMI a better metric than EVA?
- Do existing metrics for short-term profitability (typically related to the DuPont model) give brand and channel building a "fair chance?"
- What is the role of a marketing dashboard in managing ROMI?

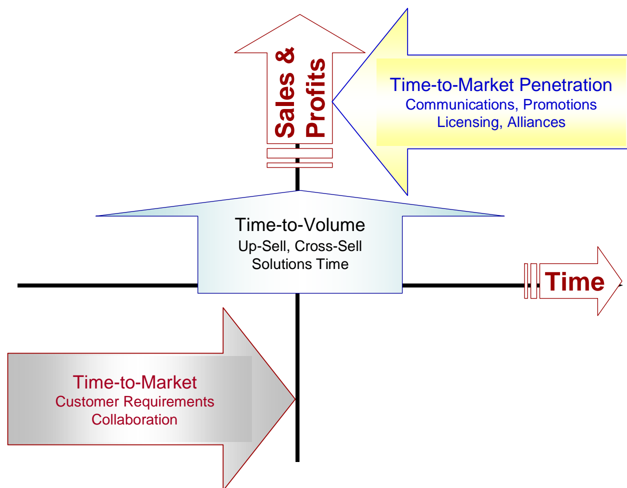
Accelerating cash flows

The power of the interconnection of brands, customers, and channels and the core market-facing operating processes becomes manifestly evident when we address the "what" and the "how" of accelerating cash flows. Each operating process plays a critical role in building brand image and reputation for speed: performing essential customer-value-generating tasks faster than rivals. When products are developed faster (innovation management), produced and moved to customers faster (supply chain management), pushed and pulled faster through the marketplace (customer relationship management), and accepted by customers sooner because of brand recognition (brand management), then not only is the firm's image and reputation for "speed," and all that it entails, greatly burnished and strengthened, but cash inflows are also accelerated.

In the quest for managing growth, most companies tend to focus on metrics like time-to-market – in fact it is hard to find one that does not – and other variants of sales from new products and markets. What is the role of marketing in this quest? While marketers contribute to reducing time-to-market (this issue is addressed in detail by the

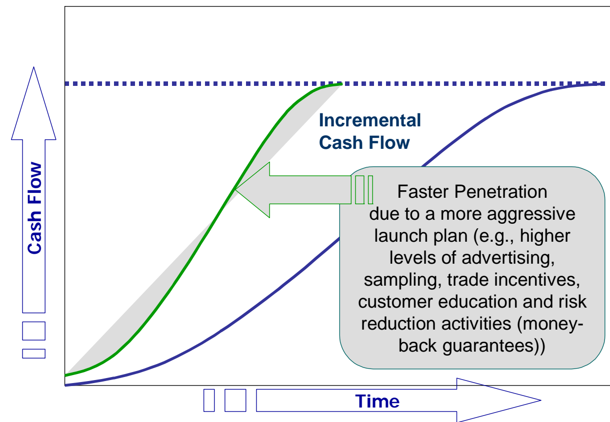
"Innovation" overview paper from the MSI Research Generation Workshop), their contributions are perhaps greater in the context of market development. It is not unusual to find companies that have accelerated time-to-market then flounder in capturing the prize – the market itself! This is especially true in the context of transformational (discontinuous) innovations that require greater customer and channel education, and therefore, higher levels of market development resources. In order for the R&D investments in new product development (and accelerating time-to-market) to pay off, there are two other necessary conditions. First, customers must adopt the product, and second, they must use it in high enough volume to provide economic justification (i.e., margins and turnover). Accordingly, accelerating time to cash flow requires reducing time-to-market, time-to-market penetration, and time-to-volume (Figure 11).

Figure 11
Accelerating Time-to-Cash Flow



The accounting discipline, married to the principles of precision, replicability, and robustness of measures, is not particularly adept at tracking intangible assets—especially growth in such assets. Importantly, accounting metrics do not capture numbers that are not in the system. For example, we tend to measure the impact of marketing activities such as advertising based on sales response analyses. But, the true value of advertising would be the gain due to advertising plus what we would lose if we did not do so—a number that does not exist in accounts. Similarly, the value of a more aggressive product launch strategy can only be captured by the increase in projected cash flows expected under that strategy. Once again, these numbers do not exist in accounting records but must be estimated based on marketing models. The true value of the more aggressive launch strategy is necessarily captured by the net present value of the incremental cash flow in Figure 12.

Figure 12
Assessing the Value of Growth Strategies



In the aggregate, the brand serves as the fulcrum along which time-to-money across the entire enterprise is accelerated. The power of brands and channel dominance to affect cash flow velocity must be firmly inculcated into all the units and functions involved in each core process; by the same token, all must understand how what they do in each unit and function contributes to establishing the brand image and reputation for speed. Indeed, brands provide the platform that allows sub-brands and brand extensions to penetrate new product markets faster than new brands or lower tier brands (Dacin and Smith 1994; Zandan 1992). This advantage can be quantified in terms of the time-value of money (Srivastava, Shervani, and Fahey 1998).

While speed may be viewed as a competitive advantage in an increasingly uncertain and dynamic world, one needs to evaluate its value differently were it to be leveraged in an aggressive posture (say, launching a new product to beat a key competitor to the punch) or a less risky one (e.g., delaying the launch of a new, unproven technology in dynamic markets fraught with uncertainty—comfortable with the belief that strong brand and channel power would enable a late entry). Interviews with senior managers suggest that companies with strong brands and channel clout/equity tend to enter the market later as these market-based assets provide the option or the luxury to enter later – thus mitigating risk in entering new product markets. Again, many questions remain in deciding how to manage growth and how to allocate resources to various components that facilitate acceleration of cash flows.

To summarize, marketers must develop and emphasize metrics such as time-to-market development and time-to-volume much as the engineering community has argued strongly about competitive and financial advantages associated with time-to-market. While all three of these forward-looking measures are subject to errors of estimation, they can be invaluable in aiding resource allocation decisions. This forward-looking way of assessing the value of marketing investments relies on estimates and is often less acceptable to accountants. But, the reality is that most accounting numbers such as earnings and book value of assets (and therefore market-to-book ratios) are estimates based on accounting assumptions and rules (e.g., depreciation methods) and not reality

(Lev and Sougiannis 1999). Uncertainty related to numbers does not render them irrelevant. In fact, it might be argued that for accounts to reflect reality, they need to be more volatile and less precise (*Economist* 2003).

Examples of questions to be addressed:

- How to quantify the value of "time premium" (time saved in product launch due to earlier acceptance of extensions/innovations launched by well-known brands)
- How to trade-off resources required for product development (e.g., to accelerate time-to-market) against investments necessary for market (brand/customer) development (e.g., to accelerate time-to-market penetration)
- What are the costs/benefits of time-to-market versus time-to-market acceptance?
- Do existing metrics for short-term profitability (typically related to the DuPont model) give brand and channel building a "fair chance?"
- What are appropriate metrics to communicate the time-benefit of marketing activities and market-based assets (time-to-market acceptance? Net present value of time?)
- Can companies with strong brands and distribution delay market entry (HP, GE, Cisco)? Can you leverage brands/customers and distribution strengths to roll over competition?
- Which metrics are more strongly linked to new product success? Time-to-market or time-to-market development?

Reducing risks

Although it is all-too-often overlooked in both the theory and practice of marketing, marketing activities and market-based assets play a pivotal role in reducing both the vulnerability and volatility of cash flows. This ability to leverage brands, channels, and customer alignment to reduce risk has been used effectively by companies such as General Electric. GE very deliberately emphasized growth and reliance on its customer service and support business in order to both enhance profitability (by cross-selling parts and maintenance services) and reduce vulnerability and risks by (typing customers down with multiyear contracts) to their own and their competitor's installed base. This strategy has led to a steady increase in the proportion of cash flows from recurring business – a metric that signals safety and is much valued by Wall Street analysts. An added benefit is that lower vulnerability and volatility reduce the risks of cash flows, which in turn results in a lower cost of capital or discount rate thereby further enhancing shareholder value.

In the aggregate, brand equity (in all its aspects) provides the ultimate bulwark against customers succumbing to the competitive maneuvers (e.g., new product introductions, price changes) of old and new rivals alike (that is, vulnerability) and

fluctuations in demand such as sudden surges or falloffs in customers' purchases due to market cyclicality (that is, volatility).

While the potential impact of marketing on reducing the vulnerability and volatility of cash flows is huge, there has been very limited attention paid to this dimension. While several scholars such as Aaker and Jacobsen (1990), Bharadwaj and Menon (1993), Hogan et al. (2002), and Srivastava, Shervani, and Fahey (1997, 1998, 1999) examine the impact of marketing activities on reducing risk, their treatise is conceptual, though supported by evidence from the financial management literature. Their contention that marketing activities such as GE's shift to services and consumables reduces volatility in cash flows, and therefore risk, is supported by the fact that companies with more variable internal cash flow tend to forgo investment opportunities as they allocate cash reserves to ride out tougher times (Minton and Schrand 1999).

While only a few marketing scholars such as Aaker and Jacobsen (2001) and Mizik and Jacobsen (2003) have linked brands and customers, respectively, to reduced risk and financial performance there is ample evidence to suggest that similar lines of inquiry are likely to be fruitful. Brand equity reduces a company's vulnerability to environmental threats. Brands provide intangible benefits and bonding that insulates them from competitive moves (Fournier 1998). Typically, weaker brands are more susceptible to competitive price promotions as documented by asymmetry in cross-price elasticities (Blattberg, Briesch, and Fox 1995). Amit and Wernerfelt (1990) find that increases in risk associated with income stream variability negatively impacts shareholder value.

Extant research documents that marketing strategies, such as focus on customer retention (Reinartz and Kumar 2003), innovation propensity (Roberts 1999), strategic differentiation (Veliyath and Ferris 1997), and diversification into related businesses and geographical markets mitigate risk by reducing earnings volatility. Interbrand's focus on linking brand strength to lower cost of capital is more normative than descriptive (Interbrand 2004). A recent doctoral dissertation (Merino 2004) demonstrates the impact of long-term advertising on both performance (ROA) and risk (volatility of ROA).

To summarize, marketers must communicate the impact of their actions, such as branding, developing integrated customer solutions or unique bundles, on reducing volatility and vulnerability of cash flows. There is much work to be done in this area, and it is possible to both use existing measures (e.g., percentage of cash flow based on recurring business, customer retention rates, and the like) as well as new measures, such as expected life of customers. In theory, the expected life of customers might be useful as the depreciation schedule for customer acquisition costs (investments, not expenses!). The indirect value of reduced volatility of sales and ultimately cash flows might be reflected in reduced liquidity requirements and therefore working capital requirements—just as reduction in uncertainty in demands reduces inventory requirements and carrying costs. Thus, marketers must argue for resources in financial terms. However, when it comes to the impact of marketing on risk reduction, we have many more questions than answers.

Examples of questions to be addressed:

- How can one identify and quantify cash flow vulnerability and volatility risks associated with brands and channels?
- What are the best ways to assess the impact on customer value, acquisition of new customers, and customer retention (and thus cash flows) by managing each specific risk?
- What is the relative size of market risk (say, due to vulnerability and volatility of cash flow of its key brands and channels) when compared to other factors?
- Is it possible to develop a "marketing-risk Beta"?
- Does higher brand equity translate into more stable sales (higher proportion of profits from recurring sales due to brand loyalty and customer retention)?
- Are more powerful brands less vulnerable and do they recover faster under adverse economic conditions?
- Is the failure rate lower for new brand extensions compared to new brands?
- Do firms with lower volatility in sales and cash flow have lower liquidity requirements? Does this enable them to grow faster as a greater proportion of liquid resources can be committed to new ventures?

Justifying marketing (brand development and customer acquisition) investments

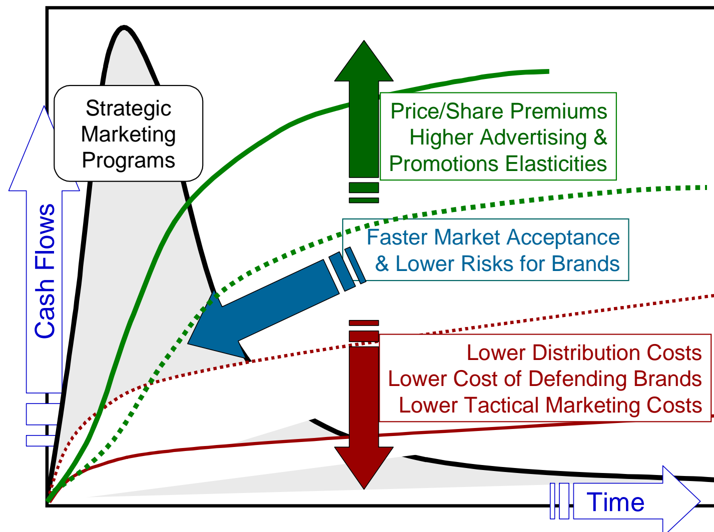
Risks related to new product opportunities might be managed through a combination of market intelligence and agility at one end (so as to better navigate treacherous fast-moving opportunities) and mechanisms to "increase friction" (add inertia and switching costs) in the marketplace. Payoffs from strategic marketing investments should be evaluated by mechanisms that nurture long-term perspectives. The value of brands, channels, and customer-installed base to foster future growth (or the option to enter growth segments) is clearly illustrated by Microsoft's ability to leverage customer connectivity to data and networks via its Outlook platform into the wireless markets where the value of smart phones/wireless PDAs to business customers is enhanced for reasons of compatibility. The benefits of both product and brand/customer platforms in exploiting supply-side and demand-side synergies, respectively, are critical for enhancing cash flows, nurturing growth, and managing risks. In particular, brand (and customer) platforms provide major benefits in corporate risk management.

As illustrated in Figure 13, investments in market-based assets can be justified by a subset of long-term benefits including higher margins and profitability, faster time to adoption, and lower likelihood of failure. Both are critical for enhancing cash flows, nurturing growth, and managing risks. In particular, brand (and customer) platforms provide major benefits in corporate risk management. Some of these advantages, largely ignored by both academics and managers, include:

- Lower vulnerability of sales to competitive actions (brand loyalty and customer retention = evidence of market imperfections!)

- More stable sales (higher proportion of profits from recurring sales due to brand loyalty and customer retention)
- Lower vulnerability and faster recovery under adverse economic conditions
- Delay market entry (HP, GE, Cisco); leverage brands/customers and distribution strengths to roll over competition
- Lower failure rate for new brand extensions

Figure 13
Long-term Value of Strategic Marketing Investments



Ultimately, strategies that result in enhancing and accelerating cash flows, and reducing their vulnerability and volatility should result in superior performance measures. One might examine the relationship between marketing resources (e.g., advertising and promotions) to changes in metrics like ROX (X might be advertising or investment or assets or sales) and EVA. While these linkages provide *diagnostics* that are useful in assessing the impact of managerial actions, they provide only a "snapshot" view of short-term performance. Longer-term financial value is typically measured using one of two methods: discounted cash flow analyses such as net present value of future cash flows or various valuation ratios such as price/earnings (P/E), market-to-book (M/B), and Tobin's Q (market value to adjusted value of tangible assets).

Therefore, to assess the long-term impact of marketing metrics, one must examine the linkage between customer and brand equity to valuation metrics. For example, the relationship between brand value and M/B is demonstrated by Kerin and Sethuraman (1998). Lane and Jacobsen (1995) show that brand extension announcements lead to abnormal returns on stocks (i.e., returns in excess of those predicted by changes in the market index), thus establishing a link between marketing activity and stock price.

Srivastava et al. (1997) show that brand equity is related to a lower cost of capital and therefore higher market capitalization.

Summary

Brands, customers, and channel relationships are strategic assets. They represent investments with long-term payoffs that include enhanced cash flow (due to both cost containment and revenue growth). They also provide additional growth opportunities in adjacent product-market spaces. They can help their owners "buy time" and therefore increase the likelihood of success of new product ventures and better opportunities to protect against competitive inroads. Building and nurturing these assets demands long-term investments.

Marketers must respond to organization pressures by linking marketing metrics to financial/accounting measures. As we argued earlier, what is necessary is to build a "marketing dashboard", wherein the marketing expenditures can have short-term effects on intervening constructs, such as awareness, preference, distribution, loyalty, brand value, etc., as well as a direct impact on short-term sales. This way we can understand the "flow" of marketing throughout the system and its impact.

But, short-term metrics such as ROMI are likely to discriminate against long-term marketing investments. Marketers must therefore communicate longer-term benefits of growth and reduced vulnerability and volatility of cash flows as an outcome of marketing actions within the accounting-finance language using discounted cash flow analyses. Failure to do so will undermine the very future of this discipline.

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