

Challenges in Measuring Return on Marketing Investment:  
Combining Research and Practice Perspectives

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## Introduction

Return on Marketing Investment (ROMI) is defined as the incremental margin generated by a marketing program divided by the cost of that program at a given risk level (Powell 2002). The typical formula is displayed in equation 1:

$$\text{Return on Marketing Investment} = \frac{[\text{Incremental Margin} - \text{Marketing Investment}]}{\text{Marketing Investment}} \quad (1)$$

Use of this metric promotes accountability for marketing spending, enables comparison across alternatives to decide on the best action and furthers organizational learning and cross-functional team work. Unfortunately, managers are struggling to define and calculate ROMI (Woods 2004), especially outside the price/promotions domain (Bucklin and Gupta 1999). A survey of over 1000 C-level managers (CMO Council 2004) revealed that over 90% of marketing executives viewed marketing performance metrics as a significant priority, but that over 80% were unhappy with their current ability to measure performance. Only 17% of marketing executives have a comprehensive system to measure marketing performance. The companies they work for outperformed other firms in revenue growth, market share and profitability. Thus, most organizations experience considerable roadblocks to fulfill the appealing promise of measuring ROMI and using it to enable better marketing decisions and higher performance. Since financial decisions within the firm in non-marketing domain are evaluated, at least in part, if not primarily, based on their return on investment, it makes investing in marketing activities more difficult by not having their comparable measure.

Several reasons underlie these difficulties, from the improper use of the term ‘return on investment’ for measures that do not include profits/margins nor investment costs (Lenskold 2003), to the lack of research into how return on marketing investment can be measured and how it can be used to enhance performance (Pauwels et al. 2008). Indeed, while many marketing practitioners and academics have expressed concern about marketing accountability and return on investment, the current push largely has come from outside the field, notably top management and finance (Lehmann and Keller 2006). Unfortunately, CEOs and CFOs have been disappointed by the most common responses of the marketing field, from ‘it is hard to judge the impact of marketing spend since so many factors come into play between the spending and the ultimate financial result’ (marketing practice), to ‘we already show it through our sales response functions’ (marketing academia). The authors’ experience in recent years demonstrates that such positions are of little help in bridging the gap between marketing and finance fields, enabling joint understanding and trust in ROMI calculations and ROMI-based decisions and building the standing of marketing in the C-suite.

Previous authors have already laid the conceptual frameworks for return on marketing investment (Lehmann 2005, Lehmann and Reibstein 2006, Rust et al. 2004, Sheth and Sisodia 2002, Srivastava et al. 1998). True to the focus of Review of Marketing Research on “implementing new marketing research concepts and procedures”, the current paper discusses 10 conceptual and implementation issues that complicate measurement and use of return on marketing investment. First, the ‘incremental margin’ in equation 1 (hereafter ‘return’) needs to be forecasted, in terms of magnitude but also timing and associated risk. Second, the investment could involve a

combination of marketing actions and needs to be considered from the point of decision perspective. Once the components of returns and investment are measured, it is still unclear whether they should be combined for a focus on (7) impact versus efficiency and (8) realized versus potential return on marketing investment. Finally, acting upon measured return on marketing investment requires (9) clarity on how to weigh multiple objectives and (10) an understanding of whether high ROMI means the marketing action should get more or less investment in the future. Often, spending more on programs with a high ROI will lower the ROI percentage but raise the total return, given we are generally at the diminishing returns stage of the response curve.

Figure 1 presents our framework for organizing these issues, while table 1 summarizes what we already know and what we still need to learn from further research.

---- Insert Figure 1, Table 1 around here ----

The remainder of this paper discusses all 10 challenges in detail, giving examples and critically examining how research has addressed and should further address these issues.

## **Ten challenges to measure and act upon return on marketing investment**

### Challenge 1: ROI framework devised for predictable timing of returns

*Issue:* Return on Investment was devised for comparing capital projects (e.g. building a larger factory) in which an investment is made once and the returns flow predictably during the following predictable years. In contrast, spending on a marketing campaign may extend across multiple periods and result in the building of brand and/or the value of customer assets with a less predictable duration. These are the two biggest assets marketing brings to the firm. The effects of brand and customer asset building will entail

wear-in and wear-out patterns that are hard to measure, especially when tracking the impact of several activities. As a result the mapping of the return for any one marketing investment will be very difficult to establish. Even other marketing investments which are not necessarily directed at brand nor at attracting customers will have varying degrees of longevity and unpredictable impact on the firm's return.

*Example:* An advertising campaign may involve spending the money in the first month, seeing the execution in the second and third month, observing initial sales effects in the third month and the peak sales impact in the fifth month. The same campaign may also have increased the willingness to pay for the brand, which does not show up immediately as the company does not raise prices. One year later though, the company is able to raise the brand's price by 3% and only loose 2% of unit sales, versus 4% of unit sales that would have been lost without the ad campaign.

*Current research:* While Little (1970) pointed to the possibility of wear-in times for marketing campaigns, empirical evidence remains limited to sales effects of advertising, new product introductions and point-of-purchase actions. The peak sales effect of advertising occurs relatively fast, typically within 2 months (Pauwels 2004, Tellis 2004), while the wear-in times for mindset metrics (such as awareness, liking and consideration) are just over 2 months (Srinivasan et al. 2008). In contrast, new product introductions typically take several months or years to take off (Golder and Tellis 1997). As can be expected, point-of-purchase actions work right away or not at all (Pauwels 2004), with price promotions standing out as the most studied marketing action (Srinivasan et al.

2004). A major gap in the literature is the timing of improvements in distribution, with only Srinivasan et al. (2008) reporting it takes an average of 2.1 months for increases in distribution coverage to reach their highest impact – the longest wear-in time of all studied marketing actions. Further investigation of this issue is important because distribution stands out as the most effective marketing action (Bronnenberg et al 2000, Srinivasan et al. 2008). Finally, we know very little of the timing of returns to investments in new (electronic) media such as paid search, banner ads and word-of-mouth referrals. On the latter, Trusov et al. (2008) report that wear-out times are substantially higher for word-of-mouth referrals as compared to traditional marketing actions for a social networking site. Moreover, Bonfrer and Drèze (2008) calculate the timing of email returns to optimize email frequency and maximize customer equity.

While considerable work has been done on brand and the value of customers, there has been little research that reflects how spending directly adds to the brand's value and when the payout will be realized. More efforts are being made to track the connection between spending and customer acquisition and the value they bring to the firm (Rust et al. 2004). Even here it is often difficult to allocate the proportion of spending that contributes to customers acquisition versus retention.

*Priorities for further research:* Empirical generalizations on wear-in and wear-out effects are necessary for managerial advice in cases where data are (for now) missing (Lehmann 2005). As literature has focused on certain marketing actions in US markets, we are in need of studies analyzing return timing for investments in new media and new (emerging) markets. Moreover, the timing of returns may systematically vary by medium and target audience, which should be taken into consideration when deciding between

campaigns. Considerable research still is required to determine the contribution of marketing spending on a brand's value and when this value is realized by the firm.

Challenge 2: How to adjust projected returns for risk?

*Issue:* While marketing is all about change and risk, marketing managers are reluctant to calculate risk-adjusted ROI due to a combination of fear-of-statistics and the perceived need to be a cheerleader for marketing actions (Marketing NPV 2007). Further, we have few measures of risks. Marketers often look at the projected return from alternative programs and select the ones that have the overall highest projected return. This treats each program as having the same levels of risk in their projections. Different levels of risk for the same expected return should lead risk-averse managers to select the action with the lowest risk. In addition, the kind of assets created by certain programs may reduce the vulnerability of the company in the future (Fornell et al. 2006, Osinga, Leeflang, Srinivasan and Wierenga 2008). A typical example is a marketing program that builds customer loyalty. As the loyalty gets larger, the risk levels are reduced. Hence, the programs could be assessed based on their short-term ROMI or on the resulting reduction in risk for subsequent sales.

*Example:* A firm has a history of running price promotions every Fall. Their years of experience have shown there will be a 10% lift in sales, resulting in a 15% ROMI. A manager suggests the alternative of running a banner ad on several internet sites, which are referred by other firms claiming sales lifts ranging from a 2-30% with an average of 15% and an expected ROMI of 20%, and a range of -5 to 40%. If the firm would invest

strictly in the program with the highest return, it would clearly select in the banner ads with the higher expected return. However, many risk-averse managers would instead prefer to continue running the price promotion. The picture further changes if the proposed new media increases brand equity not captured in the ROMI calculation. As the brand grows in value, it stabilizes future sales.

*Current research:* In academic articles, risk assessment typically involves reporting standard errors around model estimates and forecast error bands, sometimes noting the caveat that the future is expected to be like the past. Practitioner-oriented articles (e.g. Dhar and Glazer 2003, MarketingNPV 2007) and books that speak to both academic and practitioner audience (e.g. Jagpal 1999, Blattberg, Kim and Neslin 2008, chapter 6) go beyond these statements to consider how risk should be incorporated in marketing decision making. The discount rate applied to returns is key in this respect, and can be determined based on the opportunity cost of capital and based on the source of risk. The former approach holds that the firm should use as a discount rate the rate of return an investor could make on a project of similar risk, calculated as the weighted average cost of capital (Brealey et al. 2004). This number differs per company, depending on their betas (the ratio of the firm's return variability over the variability of the stock market) and the firm's amounts of debt and equity. For instance, using these data from the 1997-2002 period, Amazon had a WACC of 16.45%, while Pfizer had one of only 6.88% (ibid). Because it is calculated for the whole company, the WACC is the appropriate discount rate when the firm is considering investing in a marketing campaign similar to its past campaigns. For very different campaign, managers should identify the source of



risk (i.e. which component has a higher risk level than that of typical projects), which requires them to consider the reasons of atypically high risk (and ways to mitigate them). Finally, investing in a portfolio of marketing campaigns and customer segments may reduce risk through diversification, and modern portfolio theory may help firms balance expected returns and variance (Sharpe 2000).

*Priorities for further research:* Several of the recent advances in finance (as noted above) have yet to be applied and adapted to marketing investments. Identifying sources of risk is enabled with tools such as SWOT analyses, process flows, and contributing factor diagrams (Marketing NPV 2007). Investing in portfolios of marketing campaigns and customer segments is a prime area for future research. For instance, the correlation among returns from different segments should be inspired by academic research on how consumers interact across segments (with e.g. one segment acting as opinion leaders for the other).

### Challenge 3: Point of decision perspective need to be captured in ROMI approach

*Issue:* ROI was devised for comparing capital projects in which a given level of investment is made once. Each new adjustment in spending requires a new ROI assessment of the expected returns for that investment. The expected returns are adjusted as new information comes in. Similarly, most marketing investments (e.g. ad weight) are divisible (i.e. we can spend half of it now, half of it later) can be revisited as new information comes in. How should companies deal with such potentially continuous updating of ROI assessments?

*Example* (from Lenskold 2003): A company launches a new product and is deciding on the marketing support campaign. With a cost of \$ 200K (\$100 K for market research, \$100 K for media buying) , the marketing campaign is expected to generate \$ 600 K in extra revenues at 50% contribution margin. The company calculates a ROMI of  $[\$ 300 \text{ K} - \$ 200 \text{ K}] / \$200 \text{ K} = 50 \%$  and decides to undertake the campaign.

After having spent the \$ 100 K on market research, research shows that the campaign will only generate \$ 360 K in extra revenues. Should the company spend the remaining \$ 100 K? A retrospective calculation would now reveal a ROMI of  $[\$ 180 \text{ K} - \$ 200 \text{ K}] / \$200 \text{ K} = -10\%$ . However, a forward-looking calculation would consider the \$ 100 K spent on market research as a sunk cost, and thus reveal a ROMI of  $[\$ 180 \text{ K} - \$ 100 \text{ K}] / \$ 100 \text{ K} = 80 \%$  and imply the campaign should go on. Which one is correct?

*Current research:* Marketing academic research is largely silent on this issue. From decision making disciplines, we know that the forward-looking calculation is right in guiding which course of action to take, as it takes the correct point of decision perspective. However, the retrospective ROMI calculation is insightful for the purpose of tracking the precision of revenue forecasts and addressing specific shortcomings in this regard.

*Priorities for further research:* It is important to distinguish forward-looking ROMI for making specific decisions from ROI of the entire marketing budget (or even marketing department), which includes maintenance marketing and other costs not attributable to

specific campaigns. Moreover, further research is needed into the true divisibility of strategic marketing investments to answer tough questions that CMOs face regarding the required level of investment. Finally, it appears worthwhile to regularly experiment with new marketing ideas using small investments in limited settings, and then to scale up the successful actions quickly to the rest of the organization (Eechambadi 2005).

#### Challenge 4: Synergy in marketing spending

*Issue:* Here the issue is one of isolating the impact of any one element of the marketing program. Often, the goal is trying to identify which components of the program are working and producing the greatest return on the marketing investment. As such, it would be possible to eliminate the components that are less efficient. However, the components are often interdependent. This arises in two different forms—1) multi-collinearity, and 2) interactions. Multi-collinearity is where two or more variables or programs are run in conjunction with each other, and as such it is difficult to assess which of the programs is really causing the result, is it one, the other, or really only when done in conjunction. If it is really just one of the programs that is causing the effect, yet it is hard to assess which is the driver of the result, this is not really synergy, yet it poses the same problem of assessing which is the critical expenditure that is yielding the result. In the case of interaction, it really is one of synergy. The two components combined have a much greater impact than the one alone. In this case, it is difficult to assess the impact of a single program, as it has an impact beyond its direct effect. The entire notion of an “integrated marketing program,” is built on the premise that there is a synergy amongst the various different marketing activities.

*Example:* Once a year, Bloomingdales runs a special price promotion for its credit card holders. It opens the hours late for an exclusive shopping evening at reduced prices. To do this without letting their credit card holders know of the event would be foolish. So, they send out several special mail pieces to all of their credit card holders. The net result is they have a huge boost in sales for that evening. It is difficult for them to tell if the sales hike is the result of the later than usual hours, the reduction in price, or the special mail pieces that were sent out. It could be this is merely the result of multi-collinearity, and because these three activities always happen in conjunction it is impossible to assess which is the real causal factor for the sales spike.

*Current research:* Integrated Marketing Communications enjoys a long history in practitioner-oriented literature, but relatively few academic papers have demonstrated marketing synergy (Naik and Raman 2003, Srinivasan et al. 2009). Those that do typically find large synergy effects (ibid). For one, advertising is 9 times more effective when paired with a new-to-the world car introduction versus paired with an existing car model (Srinivasan et al. 2009)

*Priorities for further research:* The above cited papers provide models to demonstrate and quantify synergy based on past data. However, perfect collinearity among marketing actions in these past data (as in our example) prohibits a model from distinguishing such effects. In that case, the best way to assess the impact of the individual components of the marketing program would be to run an experiment or test market. Taking the Bloomingdales example above, it would be possible to try an evening with extended

hours and test the impact. Similar isolation of the effects could be run for the other two components of the program. In this manner it would be possible to test the effect of each as well as to assess the synergistic impact.

#### Challenge 5: ROMI depends on the reaction of competitors and other market players

*Issue:* The return on marketing investment is influenced by the reaction of competitors, other market players (e.g. retailers) and by employees of the company itself (e.g. through decision rules that favor repeating past successes, Dekimpe and Hanssens 1999). As a result, marketing managers are urged to consider the net long-term impact of their decisions, which includes dynamic response of such market players (Chen 1996, Dekimpe and Hanssens 1999, Day and Reibstein 1997, Jedidi, Mela and Gupta 1999). This makes it very difficult to know what the return will be on any proposed marketing spending prior to knowing all important reactions. To complicate matters, managers often have little insight into their own company's decision rules (e.g., supporting a new product with advertising and price cuts) nor its inertia (an initially successful action gets prolonged and/or repeated). Marketing literature has so far focused on estimating customer and competitor response to marketing actions, instead of the response of other players in the market system.

*Examples:* The absence of a significant post-promotion sales dip in several empirical studies is mostly due to the fact that prices do not return to their regular levels for several weeks (Pauwels 2004, 2007, Srinivasan et al. 2004). A plausible reason for such prolonged company action, as confirmed in experiments, is the managerial tendency to

weigh past prices when setting future prices (Krishna et al. 2000, Nijs, Srinivasan and Pauwels 2007). Second, advertising may fail to affect sales due to its inability to generate consumer response for established brands (Abraham and Lodish 1990), or due to competitive retaliation campaigns that cancel any demand gain (Bass and Pilon 1980).

*Current research:* Research is abundant as to competitive reaction, including its nature (aggressive, accommodating or neutral), its speed and absence due to competitor's unawareness or inability to react (Chen 1996). Recent studies have begun to assess the importance of competitive reaction on the return on the initial marketing investment, and report small effects on average, including both positive and negative impact (Steenkamp et al. 2005). Pauwels (2007) find that competitor reaction lowers price promotion benefits by 10%. Only a few papers have focused on company decision rules, and have consistently found that their impact on the net performance effects of price promotions dominates that of competitive reaction (Horváth, Leeflang and Wittink 2001, Pauwels 2004, 2007). Similarly, the reaction of retailers is most often analyzed in the context of price promotions (pass-through) and new product introductions (retailer adoption and shelf space allocation). As for other market players, recent research has focused on analyzing investor reaction to product innovation, price reductions and advertising (e.g., Pauwels et al. 2004, Joshi and Hanssens 2004; Srinivasan and Hanssens 2008).

*Priorities for further research:* The reaction of market players can be assessed by dynamic system modeling in data-rich environments (e.g. Pauwels 2004) and by role play in data-scarce environments, such as one-shot negotiations (Armstrong 2001). Marketing

researchers have become fascinated with the reaction of financial markets to marketing actions, as evident from the attention of the Marketing Science Institute and the *Journal of Marketing* in a forthcoming special issue on marketing and finance. Further research is needed to assess whether investors react appropriately to marketing actions, and thus how valuable the information of investor reaction is for marketing decision making.

A key research priority is to go beyond documenting reactions towards understanding the impact of that reaction on the return on investment of the initiating action. For marketing mix actions, is it really the case (Pauwels 2004) that the majority of the net sales impact derives not from customer reaction but from support from other marketing actions (for advertising and new products) or from prolonging the initial action for several weeks (in the case of feature and price cuts)? For strategic marketing actions, how does one assess likely competitive reaction in deciding on location, product quality and regular price level (e.g. start or avoid starting a price war)?

#### Challenge 6: Intervening variables mask the true impact of marketing for the firm

*Issue:* Marketing is just one step in getting the product to the customer. There are several steps which intervene between marketing actions and when the customer ultimately buys the product, as well as the true impact on the value of the firm. Supply disruptions (especially critical in emerging economies) can lower the financial returns to marketing actions, even when sufficient consumer demand was generated. Macro-economic changes such as the recent credit crunch and financial meltdown, can wreak havoc on carefully planned and executed campaigns. Consumer trends concerning diet habits can change as a result of specific media exposure. Such intervening factors appear

especially important for products with a long sales cycle, as considerable time passes from awareness to interest to consideration to preference to purchase, assessment, and ultimately repurchase. Moreover, information on such intervening factors typically comes from non-marketing datasets (e.g., government or industry sources), raising the issue of how to merge different data sets with different periodicity. As a result of intervening factors, it becomes difficult to directly assess the impact of the marketing actions and spending on the value of the firm, even if there is a highly positive impact created by the spending.

*Example:* As in the example in Challenge 1 above, advertising spending occurs in the first month. In the second month, the economy takes a downturn, and operations has trouble shipping the product in a timely manner. The question is what would have been the resulting sales had these other factors not occurred. Sales may even be down, yet the real question, in order to assess the return on the marketing investment, is how much more would the sales have been down had there been no marketing effort.

*Current research:* When the intervening factors are known and measurable, researchers prefer to include them as variables in their models. For instance, Pauwels et al. (2004) included the S&P 500 index, the construction cost index and the dollar-yen exchange rate in their analysis of the US performance impact of product innovation for Japanese car manufacturers. If historical data are unavailable, managers can assess the likelihood of intervening factors and their impact on the return on marketing investment, for instance through scenario building (Armstrong 2001, Marketing NPV 2007). Combining such



managerial judgment with estimates from past data offers a promising way to get the best out of model and manager (Blattberg and Hoch 1990).

*Priorities for further research:* A key research goal is to assess the impact of marketing, separating out all of the extraneous and intervening factors. If there are varying regions or time periods in which there were no or at least different intervening factors, by running a cross-sectional or time series analysis and including the intervening variables as other variables in the model or as co-variants, it should be possible to isolate the marketing effects. This, of course, assumes two things—the intervening factors are independent of the marketing efforts, and there are sufficient observations of these factors.

Unfortunately, often these two conditions do not exist. For example, when we run a promotion or an advertisement, if sales boom, then running out of stock is directly correlated with the promotion or marketing. This would clearly understate the true potential impact of the marketing effort. As for the number of observations, many times the extraneous factors are episodic and are one time events, such as a labor strike, and would be hard to build into a model with such limited observations.

The other alternative is to run an experiment or test market. In a tightly controlled experiment in a limited geographic area, it would be possible to avoid such intervening factors. Here the challenges are twofold: 1) running the experiment for a sufficient time period that the long term effects can be measured, and 2) when there are intervening variables that result from the expenditures, such as advertising and stockouts, and that has been avoided in the test market. This would challenge the external validity of the test market.

### Challenge 7: Impact versus Efficiency of Marketing Spending

*Issue:* Even with consensus on measuring the return and investment components of marketing spending, it is unclear whether they should be combined to measure *effective* spending versus *efficient* spending. Normally, when we refer to return on marketing dollar or ROI, it is in reference to *efficiency*. With efficiency as the goal, it almost always results in a reduction in budget, as the way to increase the efficiency of the total marketing spending is to eliminate those programs which are less efficient. Instead, the firm may be more interested in the *effectiveness* (impact) of a marketing action, which may be better expressed as [return- investment], without dividing by the investment as indicated by the ROI formula. As an illustration, compare two mutually exclusive projects, with returns of respectively \$ 100 M and \$ 10 M and investment costs of respectively \$ 80 M and \$ 2 M, at the same level of risk. The first project has the larger net return [ $\$ 20 \text{ M} > \$ 8 \text{ M}$  ], but the second project has the larger return on investment [ $25\% < 400\%$  ]. Which project should a manager prefer?

*Example:* IBM once had a supplies division. In this division, it offered a variety of services. In order to maximize their efficiency they starting looking at each service and eliminating them from the portfolio. Not surprisingly, the size of the division continued to shrink until they decided they did not have critical mass to warrant the division. So, while it was efficient, they lacked enough effectiveness in what they were providing to keep the business.

*Current research:* This issue has not been much debated in academic articles, but more so in books and practitioner-oriented publications. Lenskold (2003) argues that the goal should be efficiency, that is to maximize the return per dollar spent. In contrast, Ambler (2003) argues that impact (effectiveness) is more important: it is most closely related to Net Present Value, Discounting Cash Flow and Economic Value Added metrics and focuses the organization on maximizing long-term firm value instead of short-term efficiency.

*Priorities for further research:* Research could analyze the conditions under which an organization would and should focus on impact versus efficiency goals. For instance, growing cash-rich firms in boom times favor impact goals, while managing cash-strapped (small) firms in recession times favor efficiency goals. In general though, there should be a balance between effectiveness and efficiency goals. For instance, Diageo displays marketing actions on a 2x2 matrix juxtaposing their impact (on defined objectives) and their efficiency (ROMI). Actions without sufficient impact are likely to be cancelled, no matter how high their ROMI, while impactful but inefficient actions are reexamined to improve efficiency in the future. Probably, there should be some threshold, perhaps the cost of capital, which marketing spending should exceed, and all programs should be supported which exceed this threshold. Research could investigate what these thresholds for impact and efficiency should be. Measuring the effectiveness or the efficiency is not an easy task. It is the theme of the entire chapter. The point of this issue is that it is not only important to measure the percentage return of any spending amount but also the magnitude. The goal should be to maximize the total impact once a certain threshold is

achieved, even if that reduces the overall efficiency.

### Challenge 8: Realized ROMI versus potential ROMI

*Issue:* While sophisticated companies like P&G have a good feel for the return on investment of their actions ('realized ROMI'), they have yet to find how much return they could have had ('potential ROMI'). This is the spirit behind the Pioneering Research for an In-Store Metric (PRISM) project: by tracking aisle-specific traffic and conversion (or 'closing rate'), companies get a better feel for how much extra revenues they could have obtained. Indeed, most companies do not invest in promising marketing actions until diminishing returns set in: history (non-zero budgeting, conservative bias) and modesty prevent this.

*Example:* When focus groups revealed that its target customers loved ice cream, Unilever wanted to fill store freezer doors with ads for its new Sunsilk hair care product (Neff 2008). However, PRISM data revealed that only 10% of the target market (young women aged 18-24) actually go down the ice cream aisle during a shopping trip. Instead, end-aisle and hair care shelf ads reached a much larger portion of the target group. In contrast to ice cream, some categories obtain high aisle traffic but low conversion. Butter, yogurt, cereal and coffee are examples. How can we explain such patterns and how can companies capture some of this potential?

*Current research:* Research on marketing potential has focused on customer relationship management, i.e. identifying how specific customers can be upgraded to higher usage and

retention (e.g. Neslin et al. 2006). Using only firm-specific records, next-product-to-buy models attempt to infer the current share of requirements and thus quantify the potential for increasing revenues from a customer (Knott, Hayes and Neslin 2006). Du, Kamakura and Mela (2007) augment these internal records with insights into customers' relationships with competing firms to estimate the size of each customer's wallet and the firm's share of it. Finally, hidden Markov models have been applied to estimate household life cycles and their impact on budgetary allocation (Du and Kamakura 2006).

*Priorities for further research:* Marketing could gain a 'better seat' in the board room if CEOs and CFOs understood how money they left on the table by under-investing in marketing and skills (e.g. optimal pricing). Based on models of customer requirements and the firm share of wallet (static focus) or life cycle and next-product-to-buy models (dynamic focus), researchers could calculate 'underinvestment quotients' to quantify this. Companies can then set up a system at the highest level that includes metrics allowing experiments and scaling them up. For example, provided with better in-store metrics, researchers can analyze which vehicles have the biggest impact on aisle traffic and shopper conversion to capture the full potential of that aisle traffic.

#### Challenge 9: How to deal with the multiple objectives?

*Issue:* Besides profits, managers at different levels of the organization care about a multitude of objectives, including stock price/market capitalization, sales volume, the share of a specific market, market share, brand equity and other consumer mindset metrics, retailer equity, etc. metrics such as awareness and consideration. How do these

objectives relate to each other? Should they be incorporated into an ‘integrative’ ROMI calculation and how much weight should be given to different objectives?

*Example:* Natter et al. (2007) optimized dynamic pricing and promotion planning for a retailing company, having agreed to optimize profits. When they recommended higher prices to increase company revenues, they met with substantial resistance from the purchasing managers, whose supplier discounts depend on sales volume, and of local branch managers, who insisted on keeping a market share leadership position in their city. After further discussion, they decided to combine profits, total sales volume and local market share objectives in an overall goal function for the model to optimize.

*Current research:* With the exception of Natter et al. (2007), we know of little academic research on this issue. Forrester research reports (such as ‘The ROI of Blogging’ 2007) and academic work in progress does focus on the measurement of new media, such as user generated content and blogs. A big question here is what the objectives of the organization should be.

*Priorities for further research:* Bridging market perspectives across functional and geographical boundaries is an important objective of marketing in general (e.g. Jaworski and Kohli 1993) and marketing dashboards in particular (Pauwels et al. 2008). Eliciting these opinions and furthering consensus are underdeveloped areas in research and practice. Moreover, research could investigate the ‘optimal’ weighting of objectives

based on hard performance measures, similar to combining model and managerial judgment (Blattberg and Hoch 1990).

Challenge 10: Invest more or less in high ROMI actions?

*Issue:* If a firm is able to assess the return on their marketing dollars, how should they use this information for future budgeting decisions? It is not as simple as shifting dollars to the actions with the highest past ROMI. Just because this is how the dollars produced in the past does not mean this is how they will in the future. Further, while a certain level of return was obtained does not mean this is the optimal level, that is, perhaps better performance could be achieved if a different level of spending or different implementation was employed.

*Example:* As Harrah's implemented their dashboard and determined the efficiency of their marketing spending, they reallocated their dollars to only spend on more productive programs. One might speculate with greater productivity around their marketing spending, they would be more likely to spend more. That was not the case, however (Reibstein et al., 2005). At least, they did not decrease their marketing spending, but rather felt they could get more done with the same overall marketing budget.

*Current research:* Empirical generalizations on sales response functions provide some guidance as to optimal spending rules (Mantrala, Sinha and Zoltners 1992).

---- Insert Figure 2 around here ----

Imagine a firm with a sales response function as shown in Figure 2. What is shown is the sales response resulting from a certain level of marketing “stock.” This “stock” reflects the cumulative spending to date. Part of the “stock” that has been built by past spending erodes each year and is added to with each new level of spending. A couple of issues arise;

(1) The implication of stock is if the same amount of money was spent in the same way this year as last, the results will probably be different, even if all other conditions were the same since the firm would be at a different level of “stock.”

(2) Looking at the “X” on the graph, what is clear is the firm could have had a higher return had it spent more, although at a lower level of ROMI, since it is past the second inflection point.

*Priorities for further research:* If a firm would measure its response function and knew where it was on the response function, it would be in a better position to know whether to be spending more or less than in previous years. The alternative would be to run experiments to assess alternative levels of expenditure and different programs and their resulting impact.

Beyond the 10 challenges from the framework in Figure 1, multinational companies face several additional issues, such as global versus local branding and ROMI measurement. For instance, Samsung has successfully revamped their entire marketing effort to reflect a global optimization of resources (Shankar 2008), while Avaya has standardized ROMI measurement globally but encourages local branding and marketing actions.



## Conclusion

It is critical to measure the return on marketing investments. In order to get budgeting support, marketing will find it necessary to make the case that investments into marketing programs warrant the expenditure, relative to other opportunities facing the organization.

Unfortunately, the estimate of ROMI is certainly faced with many challenges as outlined above. Perhaps, most critical is the time delay between when the marketing dollars are spent and the actual and residual results. Making the direct association between marketing spending and sales results are all the more difficult because of the numerous other factors that change due to the marketing investment. Sales are reflected in the number of units sold, but there also is the impact of the marketing spending on the margins that are commanded. Are the incremental unit sales or the added margin the result of the marketing spending or are they coming from the research and development dollars that enhanced the quality of the product or service? Did the R&D spending get its insights and direction from the marketing research that was done and was honed to the customers' needs during the new product development process?

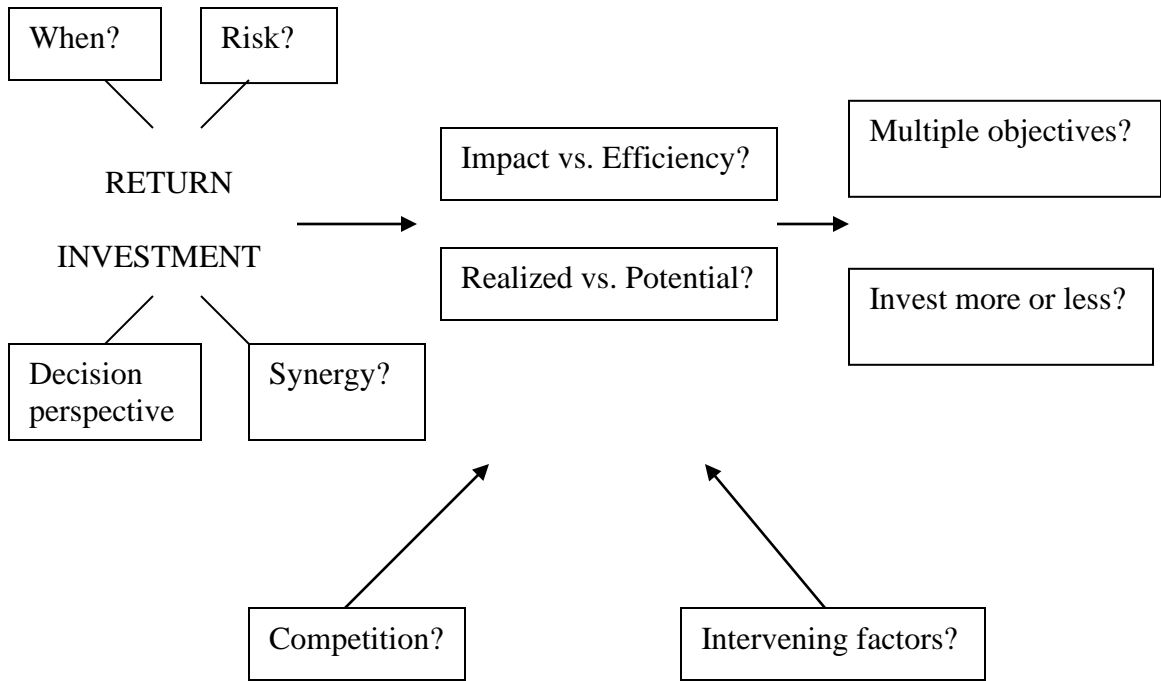
These factors and others cited above make the problem of estimating ROMI exceedingly difficult. That said, it should not be an excuse for *estimating* the return. Comparable issues face other investment opportunities facing the organization. When one invests in plant and equipment, one is never fully certain about how long the equipment will actually last and how productive the new facilities will be, or even when it will be completed. Yet, estimates are made. When investing in financial instruments or foreign currencies, an estimate is made of the likely return, but this is always done with uncertainty. The same holds for estimating the return of marketing dollars.

We have specified in the sections above, the types of research that could be done to help reduce some of the uncertainties and help in ROMI estimation. These steps will not eliminate the uncertainty but should help in estimating the likely return. In this way, marketing expenditures can be compared with the other choices facing the organization.

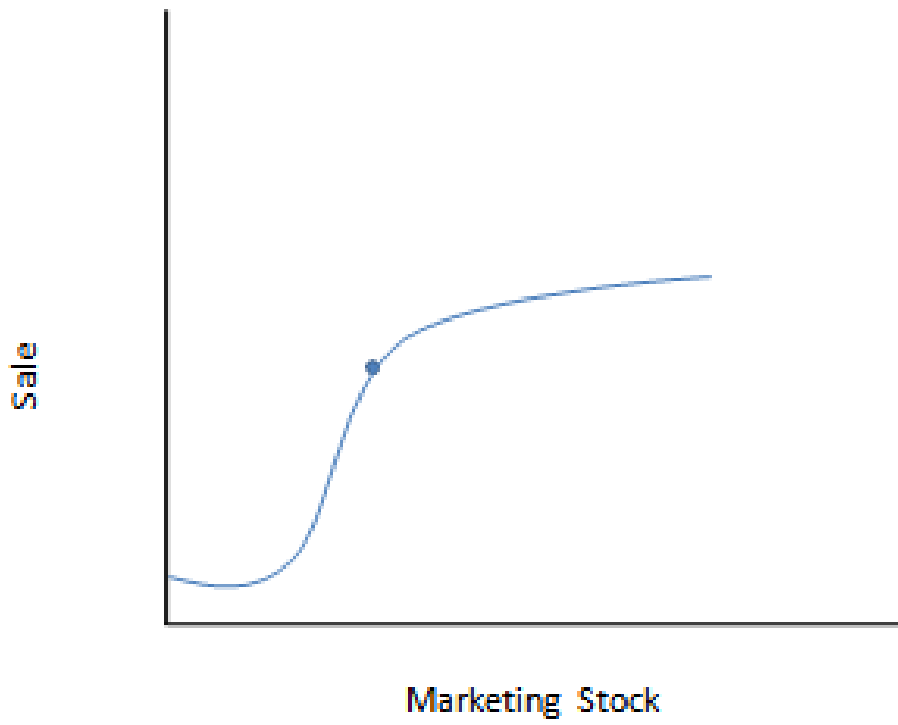
**Figure 1:**

**Framework: 10 challenges to measure and act upon return on marketing investment**

Calculating ROMI components      Bringing them together      Acting on ROMI



**Figure 2:**  
**Sales response function**



**Table 1: Summary of challenges, what we know now and what we still need to know**

<b>Challenges</b>	<b>What we know now</b>	<b>What we still need to know</b>
Timing of returns	Sales effects of promotions, advertising and new products Wear-in and wear-out patterns in mature (Western) markets	Sales effects of Distribution Effects on marketing assets How and when marketing assets affect sales, margins and risk
Risk of returns	Estimate uncertainty, discount factor, finance portfolio theory	Managerial uncertainty; how to include it into marketing budgets
Point of decision perspective	Look forward to decide among projects, backward to evaluate	Divisibility of marketing actions How much to experiment?
Marketing synergy	Advertising synergy matters Need for integrated marketing strategies	Experiments to decouple collinearity and to estimate marketing interactions
Reaction of market players	Nature and size of competitive response to promotions Internal decision rules dominate net impact of marketing actions	ROMI Impact of response Response to strategic actions Information value of investor reaction for marketing decisions
Intervening factors	Include in model if available Scenario building and decisions trees if data are not available	Relation with marketing actions How to merge different data sets with different periodicity
Impact vs. efficiency	NPV, DCR and EVA focus on impact, ROI focuses on efficiency	How to achieve both and when to focus on impact vs. efficiency Implications for budgeting
Realized vs. potential ROMI	Realized ROMI, next-product-to buy, share of requirements	Calculate underinvestment ratio Identify new opportunities
Multiple objectives	Incorporate in objective function	Optimal weighting
Invest more or less in marketing	Optimal spending with concave and S-shaped response functions	Weigh efficiency versus growth Experimentation

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