Marketing return on investment: Seeking clarity for concept and measurement

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Abstract   As the need for accountable marketing spending continues to grow, companies must develop sound metrics and measures of marketing's contribution to firm profitability. The leading metric has been return on marketing investment (MROI), following the widespread adoption of ROI metrics in other parts of the organisation. However, the ROI metric in marketing is typically interpreted and used in a variety of ways, which causes ambiguity and suboptimal marketing decision making. This paper seeks to remove the ambiguity around MROI to guide better measurements and analytics aligned to financial contribution. The authors first provide a formal definition of MROI and review variations in the use of MROI that are the root cause of ambiguity in interpretation. The authors come to the conclusion that MROI estimates would be more transparently described if those providing the estimates used the following form: *Our analysis measured a (total, incremental, or marginal) MROI of (scope of spending) using (valuation method) over time period*. The paper proceeds to describe five case studies that illustrate the various uses of MROI, covering different marketing initiatives in different business sectors. The authors describe the important links between marketing lift metrics (such as response elasticities) and MROI. The final section of the paper focuses on the connection between MROI and business objectives. While management's prerogative is to maximise short- and long-run profits, that is not equivalent to maximising MROI. The authors demonstrate that MROI plays a different role in the process of marketing budget setting (a marketing strategic task) versus allocating a given budget across different marketing activities (a marketing operations task). They highlight the role of setting MROI hurdle rates that recognise not only marketing's ability to drive revenue, but also the firm's cost of capital. The authors hope that their recommendations will help the marketing profession achieve a common understanding of how to assess and use what they believe is its most important summary productivity metric, MROI.

KEYWORDS: ROI, marketing impact, marketing metrics, marketing resource allocation, marketing budgeting

THE PURPOSE OF THIS PAPER

An important responsibility of the marketing function is to enable economic decisions on budgeting and allocating the corporate resources devoted to marketing efforts. Marketing return on investment (MROI), aka return on marketing investment (ROMI), is the metric that is increasingly used to evaluate marketing spending and to guide strategic and tactical decisions. Practitioners and academics agree that, if dollars are spent or valuable assets committed to marketing purposes, then the firm should strive to monitor and improve returns to marketing efforts in financial (dollar) denominated metrics. MROI is arguably the most widely employed measure of *enterprise* marketing productivity (output/input), even if it is not as universally embraced and implemented as many would wish. As such, it is important to ensure that definitional ambiguity does not plague the already-difficult job of assessing marketing's contribution to the firm's health and profitability. The goal of this paper is to improve conceptual and definitional clarity, as well as to suggest specific terms to identify the several variations of MROI that are being used and reported by practitioners and academics.

Although the history of MROI goes back at least to 1971,[1] and was used at AT&T in the late 1980s (Lenskold, personal communication), the measure has no clear genesis. Its adoption was undoubtedly influenced by the widespread use of ROI to measure firm and strategic business unit (SBU) profitability in the late 1970s; for example, the PIMS project focused on ROI as the primary performance metric.[2] For many years, communicating marketing's contributions to the CFO and others in the finance function has been important to marketers. Part of this desire to demonstrate marketing productivity is related to budgeting, as finance often holds the key to obtaining approval for marketing spending, and hence the ambition of its strategic objectives. So it is natural that marketing would strive to speak the same language. Finance also struggles with finding the 'right' measure of profitability, however. Consider these examples of profitability metrics used by finance: ROA, ROS, ROE, ROIC, EPS, EBIT, net profit, economic profit (also known as EVA — economic value added), EBITDA, etc. Each has advocates and advantages for particular applications, but the terms are not interchangeable. We believe that marketing should strive for the same kind of precision in our common language and that belief motivates this paper.

MROI can and is being used for a number of different purposes: assessing historical and projected marketing productivity; reviewing and approving marketing budgets; allocating limited marketing funds among competing products, markets, customers, marketing mix elements and media, and evaluating specific marketing campaigns for 'go no–go' decisions.[3] Marketers differ widely, however, in their understanding, acceptance and implementation of MROI. Better understanding can help add precision to the terms, increase acceptance for

appropriate applications, design necessary analytic measurements, and speed the implementation of sorely needed metrics to assess and improve marketing productivity.

In a survey of 194 senior marketing managers and executives,[4] 77 per cent reported that they believe that ROI is a very useful measure and 67 per cent also think that market share is very useful. Less than half (49 per cent) reported that ROMI was 'useful in managing and monitoring their business'. A major reason why managers may not find ROMI (aka MROI) as useful stems from a lack of understanding of the measure.[5] Another possible reason is that respondents might have been confused about if and how ROMI differs from MROI or ROI. Furthermore, Rogers and Sexton[6] report that there is a lack of effort within companies to measure their marketing ROI, in part because rewards are not being tied to this measure. Yet Ofer and Currim,[7] based on a survey of 439 managers in the USA, show that the use of such performance metrics leads to significantly better performance. Clearly, there is a need for and a benefit to better understanding measures that capture marketing productivity.

In this paper the authors will:
(1) provide a formal definition of MROI;
(2) discuss the variations in specific MROI calculations and confusion that may result from differences in the domain of MROI under consideration; (3) illustrate several of those MROI variations with specific management applications and suggest specific names/labels for each major variation; (4) analyse relationships of these variations to other response metrics, such as elasticities and linear response coefficients of marketing mix models; (5) review different perspectives on what an appropriate objective function is for marketing (since maximising MROI is only sensible for fixed budgets); and

(6) conclude with some suggestions for future work to help marketing achieve a common understanding of how to assess and use its most important summary productivity metric, MROI.

MROI DEFINED

MROI is the financial value attributable to a specific set of marketing initiatives (net of marketing spending), divided by the marketing 'invested' or risked for that set of initiatives. MROI (aka ROMI) is a relatively new metric. It is not like the traditional 'return-on-investment' metrics because marketing is a different kind of investment. ROI metrics for firm or SBU performance are almost always annual returns, but other uses of ROI, such as the return on specific financial investment, often leave unspecified the time required to generate the return. Marketing spending is typically expensed in the current period and, usually, marketing spending will be deemed as justified if the MROI is positive and exceeds the firm's 'hurdle rate'.

More specifically, MROI is the dollar–denominated estimate of the incremental financial value to the entity generated by identifiable marketing expenditures, less the cost of those expenditures as a percentage of the same expenditures:

$$MROI = \frac{\begin{array}{c}\text{Incremental financial value}\\ \text{generated by marketing}\\ -\text{ Cost of marketing}\end{array}}{\text{Cost of marketing}}$$

Unlike other types of investments, marketing funds are rarely tied up in inventories, fixed assets or receivables, and most marketing expenditures come from what otherwise would be liquid funds. Therefore, great care will need to be taken to validate comparisons between the ROI of marketing with other ROI estimates. Some marketing actions are similar to other investments, however, in that in many cases

they generate revenue and profit returns over multiple years, building cumulative impact and creating assets with future value. More transparency in reporting these outcome types will help identify the situations under which these comparisons and other applications of MROI are more or less appropriate. The next section addresses these complexities.

THREE COMMON SOURCES OF VARIATIONS IN MROI CALCULATIONS

Although the maths is simple, the meaning and significance of the MROI metric is anything but straightforward. Below we will discuss some important sources of variations that we have identified in how MROI is estimated and reported. Our discussion is intended to support the marketing field's efforts to generate transparent and reliable metrics that can be used to assess and report marketing productivity, as well as to motivate an objective-maximising allocation of resources among competing marketing activities. As such, sources of variations are important and should be fully disclosed when marketers report and apply MROI to decisions. We have classified these three sources of variations into three categories: (A) methods of valuing marketing returns; (B) scope/granularity of spending evaluated; and (C) range of spending for which the MROI is calculated.

A. Methods for valuation of marketing returns

The most straightforward of marketing returns used in calculating MROI is the profit margin generated from incremental sales. This is what we have termed a **baseline–lift** valuation, based on the ability to establish a reasonable measure of the lift over a baseline level of existing sales, attributable to a specific marketing initiative. A slight variation of this is reporting *incremental revenue* as the return in place of *profit*. When profit margins are unknown or undisclosed, this calculation is

a useful interim step to calculating MROI, although it does not have the precision needed to optimise spend levels. When only incremental revenue is known, we still consider it a baseline-lift valuation but recommend reporting this as 'revenue MROI' to distinguish it from a net profit impact. It may also be useful when comparing the marketing productivity of two alternative marketing initiatives for the same product or service.

The next two forms of valuation are necessary to account for outcomes when sales lift is unknown. The first is a **funnel conversion** outcome, where the valuation of marketing returns involves projecting incremental sales by applying historical or estimated funnel conversion rates. The second is referred to as a **comparable cost** valuation, which considers the financial outcome of cost savings or opportunity cost differences as the return from the marketing investment.

We also need two forms of valuation that capture the contribution beyond immediate sales lift to reflect asset outcomes that provide long-term financial benefit — **customer equity** (CE) and **marketing assets**. These capture less transparent estimates of brand equity, cost of capital or effects on market capitalisation (eg price–earnings ratios) that are critical outcomes from marketing but more challenging to measure.

The same marketing efforts might be valued in a number of different ways,

with each method potentially yielding a different financial value based on the level of measurement precision, and thus a different MROI. We discuss these different valuation methods and provide mini case study scenarios demonstrating the application of each in the next section.

Table 1 corresponds closely to the chain of marketing productivity spelled out by Rust *et al.*[8] They suggested that marketing productivity could be measured at the levels of marketing tactics, impact on customers, the market, financial performance and firm value. We use a similar hierarchy for organising and labelling MROI.

B. Scope/granularity of marketing spending evaluated (full marketing mix versus individual campaigns/tactics)

MROI measures can assess the financial impact of a single marketing tactic or an integrated combination of many tactics, including the full marketing mix. The granular extreme would be ROI measures for a specific search advertisement, an e-mail campaign, or the specific offer within a direct mail campaign. The other extreme is obtaining ROI measures for the full marketing mix, or integrated marketing activities such as the Intel Inside® campaign. This multi-year effort would include costs for market research, logo design and revisions, cooperative advertising rebates and all media. As the scope of the marketing efforts

Table 1: Five levels of marketing returns

Valuation methods	Financial return assessed
Comparable costs	Cost savings for achieving equivalently valuable contacts
Funnel conversions	Future period incremental sales and profits based on estimated conversion rates
Baseline-lift	Current period[a] incremental sales and profits
Customer equity	Changes in customer lifetime value
Marketing assets	Changes in brand and firm valuations

Notes: [a]Current period refers to 'accounting period', which may include short response lags. For example, carryover effects of advertising on sales may be found one or two weeks after exposure. In most cases, such delayed effects would still occur within a quarterly accounting period.
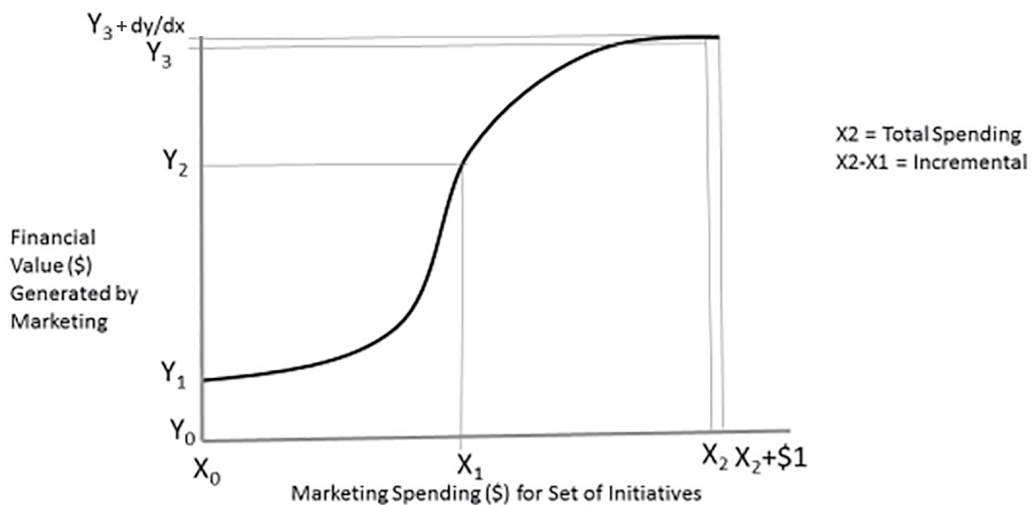
included in a particular MROI measure increases, it becomes more important to assess substitute, interaction and feedback effects among elements of the marketing mix. Evaluating a combination of mix elements can lead to a valuation that is quite different from the sum of separate return calculations.

C. Range: total, incremental or marginal returns

Holding constant the scope and granularity of activities being evaluated, there is an important distinction between reporting total, incremental or marginal MROI (see Figure 1). Total evaluates return on all spending, incremental for a specified additional spending 'increment', and marginal is the estimated return on the 'last dollar' of marketing spending. Total and incremental MROI are typically easier to estimate and often result from A/B testing, or from models that use linear response functions. Evaluating the marginal returns to spending is more challenging and, with the exception of

complex and expensive experiments, will usually involve models that include nonlinear response functions. Conceptually and practically, these three types of returns are different and they should not be compared to each other. Although diminishing returns will eventually be encountered, there is no general rule as to which of the three measures of MROI will be higher or lower. Their relative values will depend on the shape of the response function and where on that function the return is evaluated. In other words, the critical difference among the three is the comparison or reference spending level. Because marketing impact on revenue is nonlinear, it matters a great deal which reference point is chosen.

In summary, we believe there are three critical dimensions of MROI estimates: valuation method, scope/granularity of marketing mix elements assessed, and range of spending evaluated. All three dimensions need to be reported for full transparency and consideration of what the concept MROI represents in a particular application.

X2 = Total Spending
X2-X1 = Incremental

Total MROI = [(Y3-Y1) - X2]/X2

Marginal MROI at X2 = [(dy/dx) – ($1)]/$1

Incremental MROI for X2-X1 = {(Y3-Y2) - (X2-X1)}/(X2 −X1)

Baseline Sales = Y_1

Figure 1: Total, incremental, and marginal MROI

All methodologies attempt to attribute ROI from the additional financial value to the firm created by marketing spending. Their differences lie in how the valuation is assessed and the scope and range of marketing efforts evaluated. This scope can range from a specific tactic to a single campaign or even the full marketing mix. As shown in Figure 1, given a scope of marketing, the range of spending evaluated can encompass the entire budget (total), some portion of that budget that makes sense to evaluate as an increment, or the marginal returns of the last dollar of spend.

MROI estimates will be more transparently described if those providing the estimates would use the following form: *Our analysis measured a* **(total, incremental, or marginal)**[9] *MROI of* **(scope of spending)** *using* **(valuation method)** *over* **time period**. For example: 'We measured the total MROI of 2014 trade promotions using baseline–lift to be 34 per cent for the Q1, 2014 reporting period.' Baseline–lift is referring to the increase in sales above what would have occurred had the trade promotion not been run.

ILLUSTRATIVE MROI SCENARIOS

This section will illustrate with examples each of the MROI return valuation types discussed above and conclude these examples with a statement that would report the valuation method, scope and range of the MROI reported. The examples will start with baseline–lift MROI as the most common and straightforward measure.

Baseline-lift MROI scenario

A technology company selling a software package to small and medium-sized businesses evaluates its targeted marketing campaign and determines that the campaign generated an incremental 190 units of sales compared to a control group that did not receive the marketing. The integrated campaign consisted of direct mail, e-mail,

a landing page with a white paper and an outbound sales contact. The total costs were US$80,000. The company generates a net profit per sale of US$522, for a total of US$99,180 of incremental profit from the 190 units of new sales in the year. The integrated campaign generated a total ROI of 24 per cent (calculated as (US$99,180 − US$80,000)/US$80,000) using the baseline–lift MROI valuation method.

This same method can be applied to a broad range of marketing, from individual tactics through to an annual multichannel marketing spend when the incremental sales and profits generated from the specific marketing initiative can be determined. The following example is roughly based on a published case study and demonstrates how this method is adapted for different forms of marketing.

A recent article in the business press heralded the impact of the 'Brand USA' campaign, the country's first coordinated effort to promote the United States to international travellers. The campaign spent US$72m on various media ads in the 2013 fiscal year, targeting tourists from eight different countries. According to a research study, it resulted in an increase in visitors from these countries of 1.1m (2.3 per cent) over the expected visitor levels in 2013. Those visitors spent about US$3.4bn in the same fiscal year. While there are many benefits that can result from this campaign, from a purely financial standpoint, many tax-funded tourism organisations will run the analysis based on the tax returns generated, with the hope of recovering or exceeding the expenditure made. If we assume an average corporate tax rate of 12 per cent, the US$3.4bn in incremental revenue would generate US$408m in taxes. The total ROI of the fiscal year 2013 Brand USA campaign is estimated to be 466 per cent (calculated as (US$408m − US$72m)/US$72m) based on the baseline-lift MROI valuation method for fiscal year 2013. It should be noted that often MROI can be a rather large number,

given that these estimates tend only to look at the impact of the marketing spend and do not reflect the allocation of the fixed costs of infrastructure that often make the delivery feasible. If more plant or staff were necessary to be added to deliver on the increase in sales, then that expenditure would have to be taken into consideration. Otherwise, it really is the impact of the marketing spending to be able to fully utilise the existing underutilised capacity of the firm.

Comparable cost MROI scenario

Most of an internet retailer's traffic is currently generated through paid search advertising. The cost per click through (CTR) for a group of search terms is averaging US$1.50 and the firm is spending US$6,000 per year on search advertising. Assume the CMO decides to invest US$1,000 on improving the site's organic search ranking, resulting in an increase in organic clicks migrating away from paid search, thereby reducing paid costs to US$4,000 per year. Total traffic (organic and paid search) remains the same. The reduction in search advertising spending for the year is US$2,000 while the overall traffic has remained the same. The MROI is the cost savings in paid search minus the cost of improvement to generate the search traffic divided by these costs or (US$2,000 − US$1,000)/US$1,000 = 100 per cent. We estimate the total annual MROI of the site improvements on a comparable cost basis to be 100 per cent for the year. Obviously, there could be additional benefits in years to come and through subsequent purchases from the acquired customers.

Funnel MROI scenario

A company launches a content-based marketing campaign at a cost of US$30,000 that generates 6,000 views of its educational video. Based on historical funnel tracking of similar campaigns, they project 12 per cent of viewers will become qualified leads

within six weeks and 10 per cent of those leads will convert to a sale in nine months, resulting in 72 sales. At a profit of US$500 per sale, the campaign is projected to generate US$36,000 in incremental profit for an estimated short-term ROI of (US$36,000 − US$30,000)/US$30,000 = 20 per cent. The analysis identified a total MROI for the educational videos of 20 per cent using the funnel conversion method for the nine-month period.

Customer equity MROI scenario

A small financial institution catering to the high wealth segment has 10,000 customers with average annual profits of US$2,000 per customer. A senior bank executive was concerned about the attrition rate among its customers, which stood at 20 per cent annually, somewhat higher than the competitive benchmark of 15 per cent. She authorised a US$4m investment in customer service enhancement, including upgrades to the bank's digital technology and higher customer support staffing. One year after implementation, the bank's customer attrition rate had dropped to 17 per cent, while the sector benchmark stayed the same. There are different ways to calculate CE and this bank's approach was to look at the future profit stream of its customer base, ignoring any changes in customer acquisition levels or the time value of money. Before the service improvement, CE stood at (10,000 × US$2,000)/0.20 = $100m. After the improvement, the CE rose to (10,000 × US$2,000)/0.17 = US$117.6m. The total MROI of the retention initiative using the CE MROI valuation method is 340 per cent (calculated as (17.6m − 4m)/4m) over the life of the acquired customers. The return is considered 'equity' and not 'incremental profit' as measured with the baseline-lift method because the future profits require additional marketing investments and can easily change over time based on other factors.

Marketing asset MROI scenario

Two railroads merge, creating a new firm. The new firm is not well known and the stock price falls below what top management believes it should be. A US$100m advertising campaign in the financial press is launched and, relative to the industry, the new firm's market cap grows by US$115m after one year, attributed to the advertising that they do not believe would have occurred otherwise. Based on their historical P/E ratio and that of the industry, the CFO decides the campaign is a success by comparing the increase in market capitalisation for equivalent earnings to the cost of the campaign. The MROI is the increase in market cap of US$115m minus the cost of the advertising divided by the cost of the advertising, (US$115m − US$100m)/US$100m = 15 per cent. Our analysis identified an incremental 15 per cent MROI of the advertising campaign using the marketing assets valuation method for the year.

RESPONSE METRICS AND THEIR CONNECTION TO MROI

It should be clear from our discussion that the computation of a *baseline* sales performance is essential for the estimation of MROI. In straight business terms, any time we wish to assess the ROI of a marketing activity, we need to know what would have happened (to sales and any metrics derived from sales) if said marketing activity had *not* taken place. The answer to this important question leads us into a discussion of relevant marketing models and analytics, ie abstract representations of *demand* for the brand in the presence versus absence of marketing activity, ie the estimation of marketing *impact*. Indeed, we may find that marketing spending occurs and there is no increase in sales. Yet, to assess this fairly, it would be necessary to assess what would have happened if the marketing spending had not taken place. This again requires the use of the aforementioned marketing mix models.

Marketing impact that has financial consequences comes in three forms: either cost savings, unit sales impact or change in margin impact, or some combination of the three. The most straightforward method for assessing impact is a simple experimental design (A/B testing, where B is the control group) in which some markets (eg regions, or individual customers, or time periods) are exposed to the marketing activity and others are not. Such an A/B test reveals *two points* on the demand curve, as shown in Figure 1. In most applications the marketing executive will make a linear interpolation between the two, and derive the MROI as follows:

$$MROI = \frac{[\text{gross margin (condition A)} - \text{gross margin (condition B)} - \text{marketing spend (condition A)}]}{\text{marketing spend (condition A)}}$$

The ease of interpretation of such test results is offset by its limitation: two data points are insufficient to characterise a response function, and obtaining more data points quickly becomes expensive in time and execution cost. Of course, as marketers move to incorporate more digital media into the mix, the cost of marketing experiments has declined and the value has increased. New development such as programmatic advertising can also help implement ever more complex media buys.

Analytic measures can leverage the ever-increasing marketing datasets to understand the buyers' journey and the incremental sales, revenue and profits generated. Many companies choose to assess their MROI by building marketing mix models or market response models (see Hanssens *et al.*[10] for an elaboration). Such models should explicitly incorporate marketing phenomena that have important consequences for MROI, including:

- nonlinear response effects, in particular concave and S-shaped response;

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- interactions among the marketing mix variables;
- sales impact that is distributed over time (so-called carryover effects);
- non-zero sales with zero marketing spending.

Ideally, although rarely, these models should also include competitive spending as well as competitive reaction to changes in the firm's spending.[11]

These considerations could result in complex response models that may fit sales data well, but are tedious to interpret for marketing managers. Fortunately, relatively simple response models, such as the multiplicative (Cobb–Douglas) function from economics, exist that can meet the criteria above and still result in easy-to-interpret measures of marketing *lift*. The most common of those is the response elasticity *e*:

$$e(\text{marketing}) = \frac{\%\,\text{change in sales}}{\%\,\text{change in marketing spend}}$$

So for example *e*(advertising) = 0.08 means that a 10 per cent increase in advertising spend results in a 0.8 per cent increase in sales [(10) × (0.08)], all else being equal. Elasticities can be shown to be estimated directly from a multiplicative model. If an S-shaped response is suspected (which is common, but involves more than one elasticity value), a model specification test can be run on the data at hand (see, for example, Hanssens and Dekimpe[12] for the specifics).

Response elasticity is a measure of *top-line lift* due to marketing, which is the basis for MROI calculation. Numerous studies in marketing science have resulted in various empirical generalisations; for example, advertising elasticity averages 0.1, but is much higher for new products relative to established products, and sales calls have an average elasticity of 0.35 (see, for example, Hanssens[13]).

Importantly, marketing elasticity and MROI are *not the same*, as one is a top-line and the other a bottom-line impact measure. They are, however, connected via the well-known Dorfman–Steiner theorem (discussed in Hanssens *et al.*[10]) for optimal marketing spending, where optimal means profit maximising. Illustrated here for the simple case of two marketing spending categories, say, television advertising (TV) and paid search advertising (PS), the Dorfman–Steiner theorem specifies that allocations that follow the simple ratio

$$\frac{\text{TV}}{\text{PS}} = \frac{e(\text{TV})}{e(\text{PS})}$$

results in maximum profits. At that spending level, the marginal MROI for the two media will be equal to zero: at the margin, spending fewer dollars on TV or PS will result in the brand 'leaving money on the table', and spending more will result in profit loss (despite possible sales gain). Dorfman–Steiner also show that the optimal budget corresponding to these allocations will be

$$\text{TV} = e(\text{TV}) \times \text{gross margin}$$
$$\text{PS} = e(\text{PS}) \times \text{gross margin}$$

So, if the gross margin of a brand is 50 per cent and the TV elasticity is 0.08, the optimal TV spend = (0.50) × (0.08) = 4 per cent of sales. At that spending level, the marginal MROI will be zero.

Naturally, response elasticities can be extended to represent long-term impact rather than short-term sales impact. This can be achieved in two different ways:

1. Change the performance metric to a metric that is intrinsically long-term oriented, such as brand equity and CE. Some of the case studies in this paper will use CE as a long-run brand health metric. If reliable external estimates of brand equity are available, then brand-response elasticities may be derived as well.

2. Infer the long-term impact of marketing on sales econometrically. For example, if a doubling of advertising lifts sales by 10 per cent in the short run (ie elasticity = 0.1), and half of that increase becomes permanent (eg due to newly gained customers becoming brand loyal), then the long-term response elasticity would be 0.05. Various time-series methods discussed in Hanssens *et al.*[10] may be used for this purpose. Naturally, since the time horizon now extends well into the future, it is advisable to discount the future sales lifts so as to obtain a net present value estimation of marketing impact.

In conclusion, in many cases MROI is derived from individual business events, as illustrated in the scenarios above. So long as the causal connection between input (marketing) and output (sales and the other components in the sales funnel and the follow-on impact to the firm) is unambiguous, this is fine, at least for evaluating the ROI of historical campaigns. When it comes to planning future marketing efforts, however, we need sales projections with and without the marketing investment, and that requires either A/B testing (which is a form of test marketing), or formal statistical models of brand demand. The latter can be used, not only for MROI estimation, but also for sales forecasting and determining optimal marketing allocations. As we shall see below, profit maximisation is quite different from chasing high MROI.

MAXIMISE PROFIT, NOT MROI

Companies need to maximise both short-term profits and long-term value. The vast majority of marketing spend is directed toward driving profitable sales volume in current and upcoming years, while a portion is directed toward building long-term assets. Questions and concerns on the use of ROI have been raised by experts such as Ambler,[14] who stated that 'ROI is a useful way to choose the preferred options for the marketing mix when the total budget is fixed … but the concept is seriously misleading when it is used more broadly'. Rust *et al.* (p .79)[8] write 'maximization of ROI as a management tool is not recommended (unless management's goal is efficiency rather than effectiveness), because it is inconsistent with profit maximization – a point that has long been noted in the marketing literature (e.g., Kaplan and Shocker 1971[15])'. These shortcomings can be overcome with the right approach demonstrated here.

Marketing ROI provides a measure of profit contribution relative to the marketing amount invested. This ratio has advantages over fixed-value outcomes such as discounted cash flow or net present value, which do not differentiate between a net profit gain of US$500,000 generated from a marketing investment of US$200,000 or US$1m. The missing step required to make MROI measures relate to profit maximisation is assessing incremental or marginal ROI, as shown in the simple example that follows.

In the example shown in Table 2a, a company must decide if they should increase their marketing spend from US$400,000 to US$600,000, a level where measured profits (after accounting for the marketing costs) increase but ROI decreases. They have a marketing ROI threshold (ie minimum ROI required) of 50 per cent. When comparing Option A to Option B, the additional marketing spend shows an opportunity to increase profits, even though total ROI decreases.

While total MROI cannot be set as the goal, the ROI process *can* be used for maximising profits based on using *incremental* ROI measures, along with a *total* ROI threshold as applied to other spending in the organisation. This is accomplished by calculating the incremental ROI as shown in Table 2b.

The ROI of the incremental US$200,000 investment shows a return of 100 per cent.

This additional spend might be dedicated to increasing media impressions, including a financial offer or adding another tactic to an integrated campaign. Based on the ROI threshold of 50 per cent, this incremental investment meets that objective and therefore the 'spend' is justified. The evaluation process can continue with an assessment of the next increment of spend, as shown in Table 2c.

In this example, each increment of spend increases profits while decreasing ROI. The increment of spend from Option B to Option C does not meet the ROI threshold and is therefore rejected. The incremental ROI measure indicates the point where the ROI threshold is no longer being met (ie the point of diminishing returns, as shown in Figure 1).

Ironically, Option C spending from this example might have proved very valuable in producing an ROI far in excess of the threshold, had Options A and B not already occurred, as the response function would have been at an earlier stage of the response function (see Figure 1). If one considers Option C as the next incremental spend, however, its ROI would not be sufficient at this stage.

Marketing ROI measures work well for the various valuation methodologies presented, where marketing impact can be captured as the net present value of future profits (or adapted to cost savings for the comparable cost methodology). *Companies should standardise their own ROI calculation and set their ROI threshold so there is clear agreement on when marketing contribution achieves break even or the amount that could be earned via other expenditures and when marketing meets financial success criteria.* We recognise that calculating the incremental return for the next marketing spend may be difficult. NPV (net of marketing costs), on the other hand, is a direct contributor to the bottom line (ie not a percentage), and may be more usable in practice.

MROI AND ASSESSING LONG-TERM GROWTH IN ASSETS VALUE

Marketing that generates long-term assets can use ROI measures by comparing future asset value or the projected cash flow from those assets to spend. As illustrated in our previous scenarios, however, these ROI measures include only costs that are directly associated with the marketing activity

Table 2: Example of assessing incremental ROI

(a)	Option A	Option B
Marketing spend	$400,000	$600,000
Incremental profits	$1,000,000	$1,400,000
ROI	150%	133%

(b)	Option A	Option B	Incremental (Option B–A)
Marketing spend	$400,000	$600,000	$200,000
Incremental profits	$1,000,000	$1,400,000	$400,000
ROI	150%	133%	100%

(c)	Option B	Option C	Incremental (Option C–B)
Marketing spend	$600,000	$800,000	$200,000
Incremental profits	$1,400,000	$1,620,000	$220,000
ROI	133%	100%	10%

to be evaluated. Furthermore, allocating today for profits tomorrow always involves assessing risk and the time value of money, both of which require adequate returns. These requirements are reflected in the MROI hurdle rates that firms should set and use. Economic profit metrics that take into account shareholder value or balance sheet assets will have advantages for asset outcomes.

Specifically, brand and customer assets generated by marketing will often require *other investments* to convert them to sales, revenue and profits. This could require new product development, new infrastructure to support a larger customer base, additional marketing investment and perhaps more sales people. Those investments increase the hurdle rate, or return required of marketing, and will almost always require a dialogue with the CFO to align marketing spending and the targeted return on marketing with the company's cost of capital.

The widely employed financial metric, economic profit (EP) is one way this alignment might be achieved. EP is defined as follows:

$$EP = \text{net operating profit after tax (NOPAT)} - (\text{capital employed} \times \text{weighted average cost of capital})$$

Importantly, EP is denominated in currency, not percentages. Instead of dividing profit by capital employed (investment), a cost of capital is subtracted from NOPAT. This focuses on operating profit as opposed to extraordinary income. The cost of capital reflects the company's financing strategy as well as the risks for investors (cost of equity) and volatility compared to the overall market. The important point, however, is that *economic profit rewards growth as long as the rate of profitability exceeds the capital investment required to support that growth.* McKinsey recently singled out EP as the 'strategic yardstick you can't afford to ignore'.[16]

We propose that a similar EP metric is appropriate for marketing, as follows:

$$\text{Marketing EP} = \text{net dollar contribution from marketing efforts} - (\text{marketing budgets} \times \text{targeted return on marketing})$$

In this way, the return measure considers both direct marketing costs and opportunity costs due to the use of firm capital. As an example, suppose that a high–technology firm such as General Electric, and a consumer goods firm such as Procter & Gamble each invest US$250m in brand marketing that lifts their respective income streams by the same amount, due to increased brand equity. If GE's cost of capital is higher than that of P&G, due mainly to the nature of their business sectors, then their marketing EP would be lower.

MATCHING MROI METRICS WITH BUSINESS NEEDS

Each commonly used ROI measure we have identified offers unique insight. It is, however, necessary to know the conditions under which each ROI measure should be used, and to understand that not all ROI metrics are comparable across the different types of measures. Some observations are:

1. The further we move from estimating incremental sales and profits due to marketing and attempt to forecast long–term future returns, *in general*, the higher will be the risk associated with those forecasts. As shown in Figure 2, however, there may be a different degree of uncertainty associated with assessing the degree of the marketing-wrought change in the relevant metric than there is in placing a value on the change. It would make sense that, with higher degrees of risk, the threshold that needs to be exceeded grows as well.
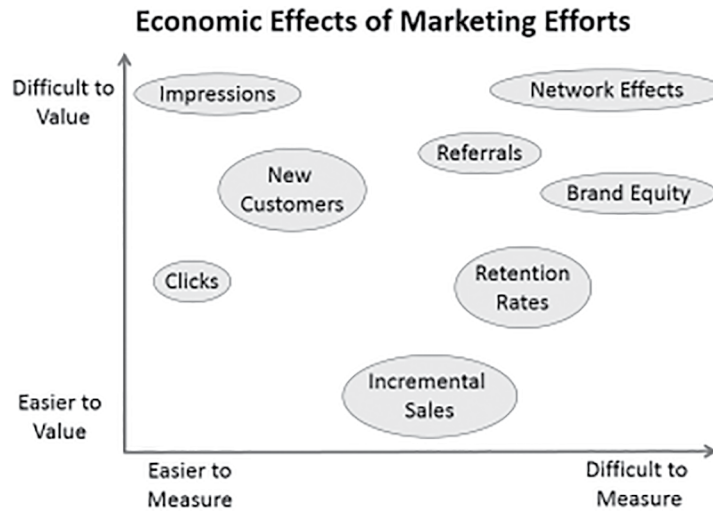
Economic Effects of Marketing Efforts

Figure 2: Metrics potentially affected by marketing spending

Notes: Example — the value of sales generated from marketing efforts is usually relatively easy to calculate, but deciding what portion of sales is truly 'incremental' may be more difficult to measure with precision.

2. When the purpose of estimating returns is not only to evaluate past performance, but also to improve marketing productivity, more granular estimates will inform the shifting of funds from less to more productive mix elements. This includes changing the focus from 'total' to 'marginal' effect. The latter may allow scaling back or increasing investment in individual mix elements to improve marginal and total MROI.
3. Knowing the potential effect of MROI measures on marketing decisions can help inform the scope, granularity and type of valuation that is most appropriate to the situation.

Certainty, timing costs and returns. Most executives cannot wait until all the data are available before trying to estimate the MROI. In the case of certain e-commerce transactions, the timing of marketing outlays and incremental revenues generated can be virtually instantaneous. By contrast, recruiting, training and deploying a sales force may take years and the resulting impact will, therefore, take longer. In many cases the outlays of marketing expenditures

are separated by a considerable amount of time from the results that the spending generates. Feedback, carryover and issues of momentum play more important roles over longer periods. Depending on the time frame considered, we can expect MROI calculations to vary. Forecasting the future always involves uncertainty, as do attributions of the present rooted in historical analyses of marketing efforts. The degree of uncertainty typically increases as the time horizon expands, but other sources of uncertainty can be market turbulence, technological disruptions, competitive actions or reactions, or any number of other factors that companies list in their annual reports. Applying mathematically rigorous estimation techniques cannot always produce estimates that have a high degree of certainty. Disclosing that uncertainty in ways that are transparent to those who rely on those estimates is as much an obligation as is doing our utmost to estimate marketing's contributions accurately.

Estimates of uncertainty will likely remain in eye of the beholder, but full transparency will inform that estimate. The uncertainty may have two important implications for management application of MROI.

First, the higher the uncertainty the higher the required MROI is likely to be, as is the case for all financial investments. Secondly, uncertainty metrics of estimates, such as standard deviations, are needed in assessing the MROI. A full development is beyond the scope of this paper, although we will return to this issue when spelling out future work needed.

Metrics that are used for estimating MROI vary in their difficulty to measure as well as to value. Increases on either dimension grow the uncertainty in the resulting MROI estimates.

MARKETERS SHOULD USE MROI TO IMPROVE MARKETING PRODUCTIVITY

There are good reasons why marketers should focus on measuring and improving MROI. Firms need budgets for many reasons, but controlling and predicting cash flows is one of the main ones. Once budgets are established, strict limits on spending for marketing are very often specified. At this point, the job of marketing is not just to spend the money, but to constantly look for way to spend it more efficiently and effectively.

Of course, maximising long-term profits is often not simply a matter of shifting funds from low ROI to high ROI activities, because there may well be strategic considerations not fully captured in the ROI measures themselves. Examples are brand building and new customer acquisition versus the need for short-term sales, balancing push and pull efforts to support distribution channels, and targeting market segments that are of strategic importance. Some of these issues may also be clarified by our distinctions of the different methods for estimating marketing ROI.

There is also a need to more formally report and assess marketing risk and match the estimates of risk to the required return for marketing spending. Breaking even is not enough, but how much more is largely a function of the company's strategic stance toward a market, the depth of it pockets, and perceived risk. This required ROI hurdle rate should be reflective of the risk associated with the investment as well as the expected timing of returns if the valuation method does not include the time-cost of funds. Alternatively, one could simply estimate a risk-adjusted return rather than have different ROI threshold levels to reflect the risk of different marketing campaigns or budgets. These are long-term goals, however. Finance as a discipline still struggles to standardise the implementation of the 'cost of capital' (see especially Jacobs and Shivdasani[17]) and the lack of a single method means that transparency will be required for both progress and achieving trust from the other fields and disciplines.

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9. Equivalent language for these three concepts is: (1) return on marketing investment (ROMI): total marketing return on investment; (2) return on incremental marketing investment (ROIMI): incremental marketing return on investment; and (3) return on marginal marketing investment (ROMMI): return on marginal marketing investment.

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