Original Article

Linking intangible assets to shareholder value

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ABSTRACT In capital markets, success is measured in terms of shareholder value added, having taken account of the risks associated with future strategies, the time value of money and the cost of capital. Such value is created by managing assets strategically. The problem, however, is that most of these assets are not on the balance sheet, as they are intangible. This paper illustrates the magnitude of the value of such intangibles and spells out a method for assessing the risks associated with their use in strategic plans and whether they create or destroy shareholder value – Marketing Due Diligence.
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THE GROWING IMPORTANCE OF INTANGIBLE ASSETS

In 2006, Proctor and Gamble paid £31 billion for Gillette, of which only £4 billion were accounted for by tangible assets, as Table 1 shows.

Recent estimates of companies in the United States and in the United Kingdom show that over 80 per cent of the value of companies resides in intangibles. Figures 1 and 2 show some of this research. Figure 3 shows a typical breakdown of intangibles while Table 1 is an example of the breakdown of intangibles in a recent acquisition. Yet very little is known about intangibles by shareholders and the investment community. Traditional accounting methods are biased towards tangible assets, for this is where the wealth used to reside.

Generalizing from this it can be seen from Figure 4 what typically appears in a balance sheet. However, when a predator bids for such a company, it is often forced to pay substantially more than the £100 million shown in this balance sheet.

In this hypothetical example, shown in Figure 5, it can be seen that in this case it is £900 million–£800 million more than is shown in the balance sheet in Figure 4.

The problem is that it leaves a balance sheet that does not balance, so this is corrected in Figure 6, which shows a balancing figure of £800 million.

A critic of accounting procedures might be justified in pointing out that this £800 million entry is the mistake made by accountants in valuing this company and that it takes an acquisition (or the threat of an acquisition) to work out how big this mistake is.

Of course, this is not true and in any case, the share price of a company is usually a good guide to its worth. There are also clear rules agreed internationally concerning how such intangibles should be recorded and treated following an acquisition. But this is not the point.

The point is that incongruously, most large companies have formally constituted audit committees doing financial due diligence on major investments such as plant and machinery,

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using discounted cash flows, probability theory, real option analysis and the like, yet few have anything even remotely rigorous to evaluate the real value of the company – intangibles. There is a massive body of research over the past 50 years on how companies carry out strategic planning and much of it verifies that a lot of what passes for strategy amounts to little more than forecasting and budgeting, which are of little value to the investment community in estimating risk, with the result that they use their own methods and frequently downgrade the capital value of shares, even when the earnings per share have been raised and when forecasts appear to look good.

There are some basic concepts relating to risk and return and stock markets all over the world that are best explained here. Figure 7 shows a simple matrix encompassing financial risk and business risk. A combination of high business and financial risk can be fatal.

Figure 1: Invisible business: Some research findings.

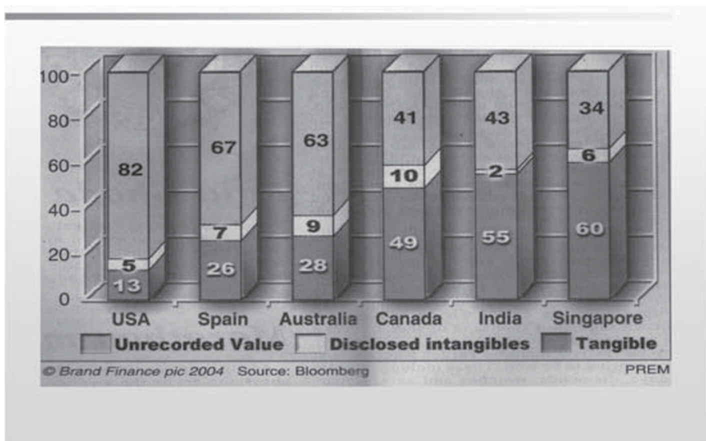

Figure 2: Asset split across selected economics.

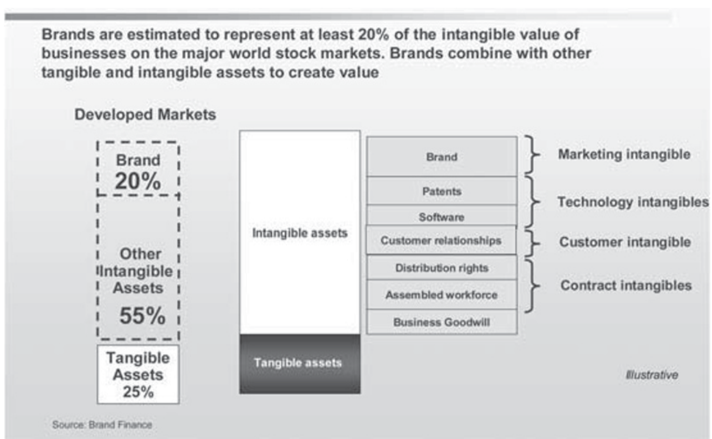

Figure 3: Brands are key intangibles in most businesses.

Table 1: Intangibles

Gillette brand	£4.0 billion
Duracell brand	£2.5 billion
Oral B brand	£2.0 billion
Brain brand	£1.5 billion
Retail and supplier network	£10.0 billion
Gillette innovative capability	£7.0 billion
Total	£27.0 billion

Source: Haigh (2005).

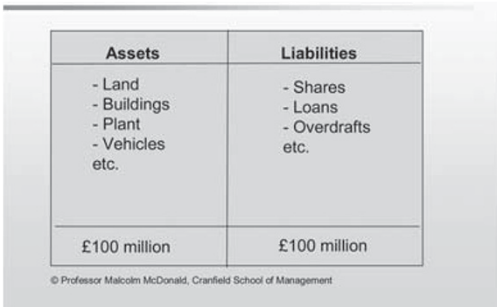

Figure 4: Balance sheet.

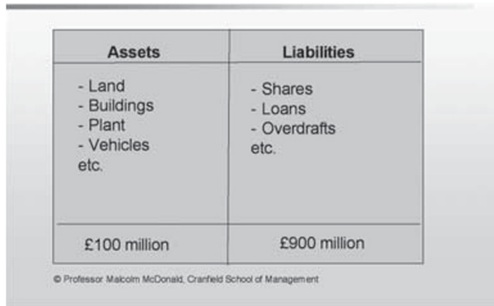

Figure 5: Balance sheet II.

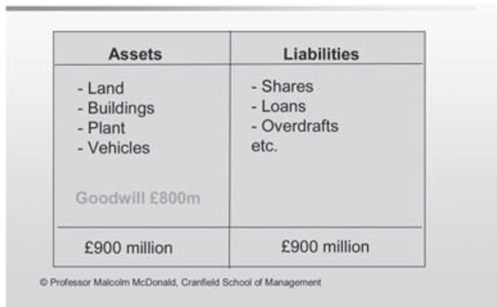

Figure 6: Balance sheet III.

For example, although there were other factors at play, Sir Freddie Laker's airline in the 1970s involved a high financial gearing. He then chose to compete on the busy high risk London/North Atlantic route, employing a low price strategy. His high financial gearing/breakeven model subsequently left him open to tactical low price promotions from more global, established airlines such as British Airways. The result was financial disaster.

Compare this with Virgin's low financial risk entry in the same market, with a highly differentiated marketing strategy. Virgin is now an established and profitable international airline.

Figure 8 shows a typical stock exchange, with shares plotted against return and risk. From this it can be seen that a Beta is drawn (the diagonal line).

At the low end, investors do not mind a lower return for a low risk investment, while at the high end investors expect a high return for a high risk investment. At any point on the line (take the middle point for example), the point of intersection represents the minimum that any investor would be prepared to accept from an investment in this sector. This weighted average return on investment is referred to as the cost of capital. Any player in such a sector returning the weighted average cost of capital is neither creating nor destroying shareholder value. To return more is creating shareholder value. To return less is destroying shareholder value.

It is interesting to note, however, that the reason the capital value of shares is often marked down after a company has created shareholder value is that the investment community does not believe that such a performance is sustainable. This is often because they have observed that the source of profit growth has been cost cutting, which is, of course, finite, whereas customer value creation is infinite and is only limited by a company's creativity and imagination.

A good example of this is a major British retailer in the mid 1990s, shown in Figure 9, from which it can be seen that, while underlying customer service was steadily declining, the share price was rising.

The inevitable almost terminal decline of this retailer was only reversed after a customer-oriented Chief Executive began to focus again on creating value for consumers rather than

Figure 7: Financial risk.

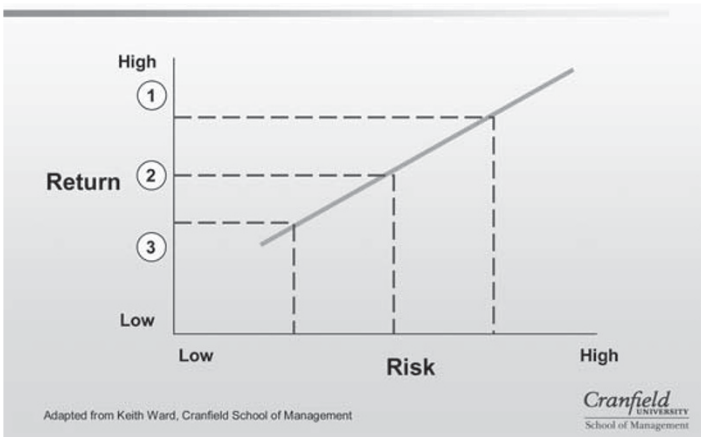

Figure 8: Financial risk and return.

boosting the share price by cost cutting. Shareholders in the meantime suffered almost a decade of poor returns.

It is, of course, not as simplistic as this and those readers who would like a more detailed explanation of the technical aspects of stock market risk and return, together with the relevant financial formulae, are directed to Chapter 3 of '*Marketing Due Diligence: Reconnecting Strategy to Share Price*' by McDonald *et al* (2007).

THE MARKETING INVESTMENT TIME LAG AND PROFIT AND LOSS ACCOUNTS

One of the major problems of marketing expenditure is that it takes time for the effects to manifest themselves in the market. This time lag often transcends the annual fiscal profit and loss account measurement. The reverse is true, of course, in that without additional market-based data in the boardroom, directors are often flying blind. When the financials tell them there is a problem, they have already missed the optimal point for taking appropriate corrective action. This can be seen from the data in Table 2, from which it would appear that Intertech (a disguised name for confidentiality reasons) are doing extremely well.

A quick glance at Table 3, however, shows that most market indicators are negative. It is obvious that, when market conditions are less benign, this company will not last long.

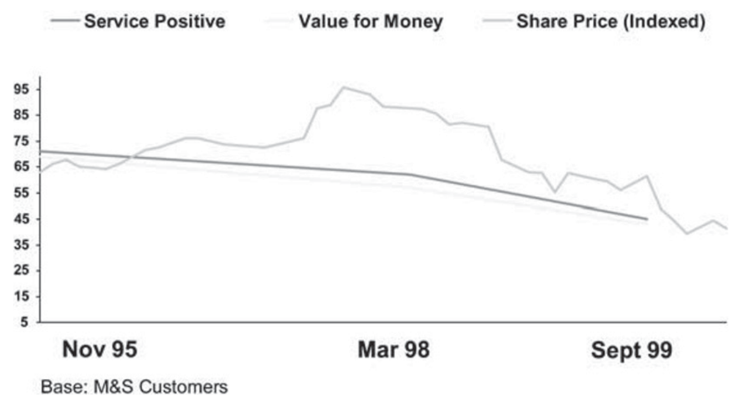

Figure 9: A major UK retailer.

Table 2: InterTech's 5-year performance

Performance (£ million)	*Base year*	*1*	*2*	*3*	*4*	*5*
Sales revenue	£254	£293	£318	£387	£431	£454
Cost of goods sold	135	152	167	201	224	236
Gross contribution	£199	£141	£151	£186	£207	£218
Manufacturing overhead	48	58	63	82	90	95
Marketing and sales	18	23	24	26	27	28
Research and development	22	23	23	25	24	24
Net profit	£16	£22	£26	£37	£50	£55
Return on scales (%)	6.3	7.5	8.2	9.6	11.6	12.1
Assets	£141	£162	£167	£194	£205	£206
Assets (% of scales)	56	55	53	50	48	45
Return of assets (%)	11.3	13.5	15.6	19.1	24.4	26.7

Table 4 shows another example of how generally uninformative profit and loss accounts are unless viewed comparatively.

The authors recently ran a workshop for 60 managing directors of a construction company, a sector that has enjoyed unabated growth in the United Kingdom for many years! This particular company had enjoyed a 65 per cent increase in net profits, with the result that these particular MDs were not particularly interested in what marketing advisers had to say. We asked one of them (who had just turned in an increase of 185 per cent in net profits), to explain the source of his success. His answer, surprisingly, revolved around benign weather conditions. On being asked how much of his profit growth had come from market growth, he did not know. Neither did he know how much had come from market share growth, nor did he know how much had come from price increases, productivity improvements and so on. It was clear to the authors, just as in the case Intertech referred to above, that this company would be highly likely to suffer severe profit consequences once the market turned malign.

In terms of accountability, all the above raises the issue of the value of profit and loss accounts in the boardroom. There is frequently only one line for revenue and dozens of lines for costs. The result frequently is that most of the discussion revolves around variances related to cost ratios. The point here is that there is a case for a more detailed breakdown of revenue and indeed there is a trend among some leading companies to appoint a 'Director of Revenue Generation' in order to address this problem.

SHAREHOLDER VALUE ADDED

It is well known by the readers of this paper that in capital markets, success is measured in

Table 3: Why market growth rates are important

InterTech's 5-year market-based performance						
Performance (£ million)	*Base year*	*1*	*2*	*3*	*4*	*5*
Market growth (%)	18.3	23.4	17.6	34.4	24.0	17.9
InterTech sales growth (%)	12.8	17.4	11.2	27.1	16.5	10.9
Market share (%)	20.3	19.1	18.4	17.1	16.3	14.9
Customer retention (%)	88.2	87.1	85.0	82.2	80.9	80.0
New customers (%)	11.7	12.9	14.9	24.1	22.5	29.2
Dissatisfied customers (%)	13.6	14.3	16.1	17.3	18.9	19.6
Relative product quality (%)	+10	+8	+5	+3	+1	0
Relative service quality (%)	+0	+0	−20	−3	−5	−8
Relative new product sales	+8	+8	+7	+5	+1	−4

Table 4: Quality of profits

%	*Virtuous plc (%)*	*Dissembler plc (%)*
Sales revenue	100	100
Cost of goods sold	43	61
Profit margin	57	39
Advertising	11	3
R&D	5	—
Capital investment	7	2
Investment ratio	23	5
Operating expenses	20	20
Operating profit	14	14
Key Trends →	• Past 5 years revenue growth 10% pa • Heavy advertising investment in new/improved products • Premium priced product, new plant, so low cost of goods sold	• Flat revenue, declining volume • No recent product innovation, little advertising • Discounted pricing, so high cost of goods sold
The make-up of 14% operating profits		
Factor	*Virtuous plc (%)*	*Dissembler plc (%)*
Profit on existing products over 3 years old	21	15
Losses on products recently launched or in development	(7)	(1)
Total operating profits	14	14

Note: This table is similar to a P&L with one important exception – *deprecation*, a standard item in any P&L has been replaced by *capital expenditure*, which does not appear in P&Ls. In the long term, Capex levels determine depreciation costs. Capex as a percentage of sales in an investment ratio often ignored by marketers, and it has been included in this table to emphasize its importance.
Source: From Davidson's 'Even More Offensive Marketing' (1998).

terms of shareholder value added, having taken account of the risks associated with declared future strategies, the time value of money and the cost of capital.

The problem, however, as stated earlier, is that little is known about how to assess quantitatively whether a company's strategy will create or destroy shareholder value and it is to this topic that this paper now turns.

It is justified to use the strategic plan for assessing whether shareholder value is being created or destroyed because, as Sean Kelly agrees:

> The customer is simply the fulcrum of the business and everything from production to supply chain, to finance, risk management, personnel management and product development, all adapt

> to and converge on the business value proposition that is projected to the customer. (Kelly, 2005)

Thus, corporate assets and their associated competences are only relevant if customer markets value them sufficiently highly that they lead to sustainable competitive advantage, or shareholder value added. This is our justification for evaluating the strategic plan for what is to be sold, to whom and with what projected effect on profits as a route to establishing whether shareholder value will be created or destroyed.

Your share price, the shareholder value you create and your cost of capital, are all heavily influenced by one factor: risk. Investors constantly seek to estimate the likelihood of a business plan delivering its promises, while the boards try to demonstrate the strength of their strategy. Research since 2002 from Cranfield School of Management into Marketing Due Diligence and Shareholder Value Added provides insight and tools to do both.

How much is your company really worth? We all know about the huge discrepancy between the tangible assets and the share price; there are innumerable tools that try to estimate the true value of intangibles and goodwill. However, these mostly come from a cost-accounting perspective. They try to estimate the cost of re-creating the brand, intellectual property or whatever is the basis of your intangible assets. Our research into companies that succeed and fail suggests that approach is flawed, because what matters is not the assets you have, but how you use them. We need to get back to the basics of what determines company value.

We should never be too simplistic about business, but some things are fundamentally simple. Your job is to create shareholder value, and your share price reflects how well you are thought to be doing that. Whether or not you create shareholder value depends on creating profits greater than we might get elsewhere at the same level of risk. Your business plan makes promises about profits, which investors then discount against their estimate of the chance you will deliver. So it all comes down to that. You say you will achieve US$1 billion, investors and analysts think it is more likely to be $0.8 billion. The capital markets revolve around perceptions of risk. What boards and investors both need therefore is a strategic management process that gives us a rigorous assessment of risk and uses that to assess and improve our shareholder value creation. Just such a process has emerged from many years of research at Cranfield, a process we have called, appropriately, Marketing Due Diligence.

WHERE DOES RISK COME FROM?

Marketing Due Diligence begins by looking for the risk associated with your strategy. Evaluation of thousands of business plans suggests that the many different ways that companies fail to keep their promises can be grouped into three categories:

- The market wasn't as big as we thought.
- We didn't get the market share we hoped for.
- We didn't get the profit we hoped for.

Of course, a business can fail by any of these routes or a combination of them. The risk inherent in your plan is the aggregate of these three categories, which we have called, respectively, market risk, strategy risk and implementation risk. The challenge is to accurately assess these risks and their implications for shareholder value creation.

Our research found that most estimates of business risk were unreliable because they grouped lots of different sources of risk under one heading. Since each source of risk is influenced by many different factors, this high-level approach to assessing business risk is too simplistic and inherently inaccurate. A better approach is to sub-divide business risk into as many sources as practically possible, estimate those separately and then recombine them. This has two advantages. Firstly, each risk factor is 'cleaner,' in that its causes can be assessed more accurately. Secondly, minor errors in each of the estimations cancel each other out. The result is a much better estimate of overall risk.

HOW RISKY IS YOUR BUSINESS?

Marketing Due Diligence makes an initial improvement over high-level risk estimates by assessing market, strategy and implementation risk separately. However, even those three categories are not sufficiently detailed. We need to understand the components of each, which have to be teased out by careful comparison of

Table 5: Overall risk associated with the business plan

Market risk	*Strategy risk*	*Implementation risk*
Product category risk, which is lower if the product category is well established and higher for a new product category.	Target market risk, which is lower if the target market is defined in terms of homogenous segments and higher if it is not.	Profit pool risk, which is lower if the targeted profit pool is high and growing and higher if it is static or shrinking.
Segment existence risk, which is lower if the target segment is well established and higher if it is a new segment.	Proposition risk, which is lower if the proposition delivered to each segment is segment specific and higher if all segments are offered the same thing.	Competitor impact risk, which is lower if the profit impact on competitors is small and distributed and higher if it threatens a competitor's survival.
Sales volumes risk, which is lower if the sales volumes are well supported by evidence and higher if they are guessed.	SWOT risk, which is lower if the strengths and weaknesses of the organization are correctly assessed and leveraged by the strategy and higher if the strategy ignores the firm's strengths and weaknesses.	Internal gross margin risk, which is lower if the internal gross margin assumptions are conservative relative to current products and higher if they are optimistic.
Forecast risk, which is lower if the forecast growth is in line with historical trends and higher if it exceeds them significantly.	Uniqueness risk, which is lower if the target segments and propositions are different from that of the major competitors and higher if the strategy goes 'head on.'	Profit sources risk, which is lower if the source profit is growth in the existing profit pool and higher if the profit is planned to come from the market leader.
Pricing risk, which is lower if the pricing assumptions are conservative relative to current pricing levels and higher if they are optimistic.	Future risk, which is lower if the strategy allows for any trends in the market and higher if it fails to address them.	Other costs risk, which is lower if assumptions regarding other costs, including marketing support, are higher than existing costs and higher if they are lower than current costs.

successful and unsuccessful strategies. Our research indicated that each of the three risk sources could be sub-divided further into five risk factors, making 15 in all. These are summarized in Table 5.

Armed with this understanding of the components and sub-components of business risk, we are now halfway to a genuine assessment of our value creation potential. The next step is to accurately assess our own business against each of the 15 criteria and use them to evaluate the probability that our plan will deliver its promises.

Again, there are many technical aspects to how Marketing Due Diligence is translated into a financial value, but essentially the formula is as follows:

Probability - adjusted cash flows (minus)
Value of capital employed (multiplied by)
Required rate from capital at risk

Again, for more technically minded readers a full and detailed explanation of how these calculations are made, see 'Marketing Due Diligence', referred to above.

This gradation of risk level is not straightforward. It is too simplistic to reduce risk assessment to a tick-box exercise. However, a comparison of your strategy against a large sample of other company's strategies does provide a relative scale. By comparing, for instance, the evidence of your market size, or the homogeneity of your target markets, or the intended sources of your profit against this scale, a valid, objective, assessment of the risk associated with your business plan can be made.

WHAT USE IS THIS KNOWLEDGE?

Marketing Due Diligence involves the careful assessment of your business plan and the supporting information behind it. In doing so, it discounts subjective opinions and sidesteps the spin of investor relations. At the end of the process the output is a number, a tangible measure of the risk associated with your chosen strategy. This number is then used in the tried and trusted calculations that are used to work out shareholder value. Now, in place of a subjective guess, we have a research based and objective answer to the all-important question: Does this plan create shareholder value?

Too often, the answer is no. When risk is allowed for, many business plans create less value than putting the same money in a bank account or index-linked investment. Such plans, of course, actually destroy shareholder value because their return is less than the opportunity cost of the investment. An accurate assessment of value creation would make a huge difference to the valuation of the company. The result of carrying out Marketing Due Diligence is, therefore, of great interest and value to both sides of the capital market.

For the investment community, Marketing Due Diligence allows a much more informed and substantiated investment decision. Portfolio management is made more rational and more transparent. Marketing Due Diligence provides a standard by which to judge potential investments and a means to see through the vagaries of business plans.

For those seeking to satisfy investors, the value of Marketing Due Diligence lies in two areas. Firstly, it allows a rigorous assessment of the business plan in terms of its potential to create shareholder value. A positive assessment then becomes a substantive piece of evidence in negotiations with investors and other sources of finance. If, on the other hand, your strategy is shown to have weaknesses, the process not only pinpoints them, but also indicates what corrective action is needed.

For both sides, the growth potential of a company is made more explicit, easier to measure and harder to disguise.

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