

# Riding on the crest of a wave can be easy but...

► Corporations today face an increasingly challenging business environment. Competition in product markets has become both global in nature and more complex. Capital markets have also become global. Corporations in every country have been forced to become increasingly focused on the issue of creating value for their shareholders.

In order to compete successfully in this rapidly changing global economy, we argue that managers need more than a strategy that suggests possible directions in which to move; they need to have a clear idea of the financial implications of that strategy.

They need the tools that will enable them to choose the specific plan that will allow them to use their organisation's resources most effectively. Companies that earn a rate of return that consistently exceeds the opportunity cost of capital will create long-term shareholder value.

In order to understand the relationship between strategy and finance it is useful to draw a distinction between companies that "ride a wave" and companies that create value.

Riding a wave simply requires being in the right place at the right time with the right characteristics. Revenues grow, the company is profitable and the stock price rises. It is easy to fall into the trap of assuming that these financial outcomes are the direct result of strategy.

Profitability is, however, extraordinarily fragile. It emanates from special conditions in product markets involving customers, competition and the overall economic environment. If these conditions change and the company does not modify its strategy, the wave inevitably crashes. Only then do companies realise, with the benefit of painful hindsight, that profitability may have been due more to serendipity than to forward-looking management.

Companies that create value do so by consistently earning more than the opportunity cost of capital through several significant cycles of change in the business. Riding a wave is easy; creating value is exceedingly difficult.

In order to create value, all managers must understand the relationship between strategy and financial results. It is tempting to believe that by doing good a company will do well. We all long to believe that if companies take care of their customers and if they care about the people who work for the organisation then good financial results will automatically happen. Unfortunately doing good is necessary, but not sufficient, for doing well.

We have developed a four-part management process

designed to integrate strategy and finance with the aim of creating value:

## Part 1: The objective

A company must have a passion for creating value for shareholders. If it is not the focus of strategies it will not happen by chance.

Capital markets may be content with companies that ride waves. If investors can time their investment properly because they understand the financial implications of management actions they can earn acceptable rates of return. They get in early in the wave and get out before the crash.

However, the implications for companies that fail actively to create value can be devastating. IBM, Apple and Kodak are examples of companies that had outstanding personnel and excellent products but suffered greatly from the cresting of their waves.

## Part 2: the financial implications

Two methodologies are useful for understanding the relationship between strategy and value creation. The first is the Dupont System:

$$\text{margin} \times \text{turnover} = \text{rate of return}$$

This formula is useful because at some level most strategies involve a trade-off between margins and turnover. It allows simple insights into the effect of various possibilities on the rate of return.

The Dupont System forces management to focus on how the rate of return comes from competitive conditions in a product market and customers' reactions to management's decisions.

Rate of return does not come from margins *or* turnover but from margins *and* turnover. Actions that increase margins tend to reduce turnover and vice versa.

Among other things, pricing decisions, investing in technology, outsourcing and adjusting product mix can all be analysed using this tool. Find a company that has "thought outside the box" and revolutionised a business, then analyse that business using the Dupont System and it is amazing how often you can see what management saw.

A good example is provided by the US retailer Walmart. The reason for its success can be seen using the Dupont System. Traditionally it has been manufacturers that have developed customer loyalty. This has enabled them to charge higher prices, and so reap higher margins. Retailers have focused more on higher turnover.



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Riding a wave: but it's easy to fall into a trap.

Walmart, on the other hand, has been able to create a strong base of loyal customers and effectively combine high margins with high turnover. As a result, it has consistently earned higher returns than its competitors.

The Dupont system is most valuable when used prospectively. It provides a simple way for managers to gain insights about the return a strategy will generate.

The second methodology is discounted cash flow, which operates at a more detailed level. It provides a means of determining the relationship between the estimates of costs, future revenues and the risk of potential investments and a company's value.

The starting point of any discounted cash flow exercise is the identification of the organisation's opportunity cost of capital,  $r$ . This is the best expected return the company's owners could obtain with comparable risk in the capital markets (that is, including banks and other intermediaries as well as the stock market and other financial markets) if it did not invest funds in the strategy under consideration.

If the strategy has a higher expected return than the opportunity cost of capital, it creates value for shareholders. If it has a lower expected return it destroys value and should not be undertaken since investors would be better off investing their money in the capital markets.

A convenient way to measure the amount of wealth created for shareholders by particular strategies is to discount the projected cash flows from an investment, including both costs and revenues, at the opportunity cost of capital.

To see why discounting gives a measure of wealth creation, consider the case where the shareholders' best available alternative is to put money in the bank at 10 per cent per year. As far as the shareholders are concerned this means that \$100 now is equivalent to  $\$100 \times (1+0.1) = \$110$  one year from now. Turning this around, the present value of \$110 one year from now in terms of today's money is  $\$110 / (1+0.1) = \$100$ .

Suppose an investment project costs \$100 today, generates a net cash flow of \$115 one year from now and shareholders' opportunity cost of capital is 10 per cent. Since the project has a rate of return of 15 per cent it is clearly worth doing.

How much wealth does the project create for shareholders? The present value of the \$115 revenue is  $\$115 / (1+0.1) = \$104.55$ . Since the project only costs \$100 the net present value – that is, the wealth created for shareholders – is  $\$104.55 - \$100 = \$4.55$ . If the business undertakes this investment project its value will increase by \$4.55.

If the project yielded only \$105 one year from now and was otherwise unchanged, it would not be worth doing. The rate of return on this project would be 5 per cent, below the opportunity cost of capital. It would be better to put the money in the bank at 10 per cent. If the managers decided to undertake the project the change in firm value would be  $-\$100 + \$105 / (1+0.1) = -\$4.54$ . Here \$4.54 of shareholder wealth would be destroyed.

The net present value (NPV) approach can readily be extended to more complex situations. Using the same logic as above concerning putting money in the bank, the present value of  $C$ ,  $t$  years from now, is  $C / (1+r)^t$ . Hence, the general measure of how much value is created for shareholders by a project with a cost at the initial date 0 and net cash flows at subsequent dates from year 1 to year  $T$  is:

$$NPV = - \text{Cost at initial date } 0 + \frac{\text{Net cash flow at date } 1}{(1+r)} + \frac{\text{Net cash flow at date } 2}{(1+r)^2} + \dots + \frac{\text{Net cash flow at date } T}{(1+r)^T}$$

Net present value has the potential to be an extremely useful tool. Given the estimated costs and projected net cash flows an investment will generate, it provides a direct way of predicting the impact of managers' actions on stock price.

Finance academics have devoted a great deal of effort to finding methods to identify the appropriate discount rate. In our examples we simply used the rate shareholders could obtain at the bank as the opportunity cost of capital.

To allow for risk, models such as the capital asset pricing model (CAPM) are used. In the CAPM model the opportunity cost of capital is found from the expected return on an investment in the stock market with equivalent risk. Significant attention has also been paid to the problem of adjusting for the choice between equity and debt finance using the Modigliani and Miller theorems and their extensions. The most popular formula, taking into account all these factors for the discount rate, called the weighted average cost of capital, is:

$$r_{WACC} = \frac{\text{Equity}}{\text{Equity} + \text{Debt}} r_{\text{Equity}} + (1 - \text{Corporate tax rate}) \frac{\text{Debt}}{\text{Equity} + \text{Debt}} r_{\text{Debt}}$$

where "Equity" and "Debt" are the market values of the company's equity and debt,  $r_{\text{Equity}}$  is the cost of equity found using the CAPM,  $r_{\text{Debt}}$  is the cost of debt which can be found directly from bond yields or bank rates, and the corporate tax rate term adjusts for the tax deductibility of debt interest.

In contrast to the large amount of effort finance academics devote to identifying the discount rate, not much time has been devoted to understanding how future cash flows emanate from strategy.

As typically implemented, finding costs and projecting revenues is the weakness of the NPV approach. The standard way of doing this is to extrapolate current accounting statements to forecast future cash flows. Little thought is put into the issue of where these cash flows come from and how likely it is that current levels will continue. This is where an understanding of customers, competitors and operations becomes crucial.

### Part 3: Integrating marketing, operations and finance

Value creation is a financial outcome but it emanates from marketing and operating strategies. It is necessary to understand the implications of these at the time strategy is formulated.



Keeping an eye on the market: Johnson & Johnson entered the disposable contact lens market at Bausch and Lomb's expense

It is ironic that value creation is a financial outcome but the role of financial managers in creating value has been severely limited because financial choices, such as debt and dividend pay-out policies, can add only a limited amount of value.

The most that financial choices can do is to start with marketing and operating strategies that have the best revenue and cost trade-offs and obtain a little more value from them at the margin. Financial strategy, in the sense of capital structure, dividend policy and the like, can never overcome poorly developed or implemented marketing and operating strategies.

We believe that finance must have two separate roles. One continues to involve the things that finance staff have traditionally done, such as choosing capital structure and dividend policies and risk management. The other role, however, is not traditional. It is the development of the financial implications of non-financial strategies.

This second role for finance involves asking and answering questions about how a proposed strategy will provide future cash flows that will create value. How can we use the improved market position derived from a proposed strategy to earn more than the opportunity cost of capital?

A key to creating value is the financial awareness of non-financial people who use this thought process when formulating strategies involving competitive advantage, technology, investment, re-engineering and outsourcing.

#### **Part Four: Change**

Strategy discussions ultimately come around to dealing with change. Strategies that earn more than the opportunity cost of capital under one set of circumstances may not earn those returns when customers, competitors, technologies and economic environment change. Integrating finance and strategy is crucial in dealing with what we call the change trilogy:

- knowing when to change;
- knowing how to change;
- changing.

For example, far too many companies have not moved on a timely basis to eliminate or change lower profitability businesses that take away sales from their core businesses. IBM is a good illustration of this. It did not pursue personal computers because it feared that PCs might erode its highly profitable mainframe business.

Similarly, Bausch and Lomb failed to introduce disposable contact lenses, presumably because of concern about the impact they might have had on its existing contact lens and solutions business. This delay enabled Johnson & Johnson to enter the disposable lenses market and gain considerable market share at Bausch and Lomb's expense.

Understanding the financial implications of doing nothing, waiting or progressively changing is crucial to understanding which strategy creates the most shareholder value. Analysing means of implementing change using the Dupont System and discounted cash flow integrates strategy and finance in determining how to change and motivate change. This is achieved through a clearer understanding of the reasons for, and the objectives of, the changes.

## Conclusions

We believe that it is only when strategy and finance are integrated that managers can avoid the pitfalls of both and make effective decisions.

The concepts of strategy need to be used to develop an understanding of how cash flows are generated. What is the competitive environment in which the business operates? How are the strategies or projects likely to affect revenues or costs? What actions will competitors take in response to changes in a company's products, pricing and other competitive decisions? How can it minimise its costs of production and maximise the quality of its products?

The usual objection to quantifying cash flows from the imprecise ideas that strategy focuses on is that there is a great deal of uncertainty associated with them. However, rather than being an argument against quantification, uncertainty is a good reason to undertake scenario and sensitivity analysis.

Although it is not possible to identify what will happen in the future, it is possible to rule out inconsistencies and contradictions in the analysis. For example, a manager may feel that costs will grow at 6 per cent per year and revenues at 15 per cent per year so net cash flows will rise at 9 per cent per year. However, a careful analysis may show that tax effects and taking proper account of sunk costs means that net cash flows grow only by 7 per cent per year.

In addition to ruling out inconsistencies, a quantification of the strategic analysis will usually help managers to understand better how strategies create value for shareholders. Such an exercise can indicate to what extent an increase in value is due to an increase in market share or a reduction in costs and how competitors' reactions are affecting value-

creation. Only with quantification is it possible to understand the relative importance of each factor and how much managerial time and effort should be devoted to each one.

Incorporating strategy thus corrects the weakness of finance by considering where projected cash flows come from with some degree of sophistication. This enables managers to understand how value is created and whether the current situation can be sustainable.

Quantification also corrects strategy's weakness of not providing a way to choose between alternatives. By combining finance with strategy it is possible to gain an idea of which strategies are likely to create the most value for shareholders. The two methods are complementary in their approach, rather than substitutes.

A company that has been highly successful in creating shareholder value is Emerson Electric, a US-based manufacturer of industrial products which makes relatively low technology goods, such as electric motors and compressors. The key features of its products are performance, low cost and reliability. It has had 40 years of increased earnings and has earned at least its opportunity cost of capital for most of these years. The company has also created a large amount of wealth for its shareholders.

We believe Emerson's success has been achieved through the integration of the tools of strategy and finance. It is highly unlikely that any company would be consistently lucky for a period of 40 years, particularly in the cyclical, competitive, low-technology industries in which Emerson operates.

Emerson has a sophisticated planning process: each division has to prepare a detailed five-year plan that contains projections of financial results and a discussion of why they are sensible. Managers use the Dupont System to prepare their projections.

The executives who prepare each division's plan are grilled by senior management. Managers are required to display an in-depth knowledge of how their plans will be implemented and why their financial projections are realistic in terms of the marketing and operating strategies involved. This has led to the company's long-term success over several business cycles. By understanding how integrated management and financial strategies create wealth, the company has been profitable in the long run.

Managers that ride waves bear significant risks. Even the most astute may not be able to predict when the wave will crest or crash. It is only through a thorough understanding of how the company creates value that executives will avoid crashes and assure consistent profitability. This can best be done through the intentional integration of strategy and finance ■