

Management Quarterly

PART 3

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Management Quarterly

A new way to keep ahead

Management Quarterly aims to deliver the basic building blocks in core management disciplines. It is produced in association with Cranfield School of Management. Each issue will contain articles on Strategy, Human Resources, Marketing and Finance, with other occasional subjects such as Project Management and Knowledge Management. Over a three-year period this will build up to a comprehensive overview of practical business knowledge, and modern management ideas.

Management Quarterly will:

- Provide a comprehensive grounding in the knowledge needed to operate a successful business.
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- Provide a wide ranging programme of CPE suitable for members both in business and advising businesses.

Key points

- Each part will be self-standing and include recommended further reading.
- Writers are selected from Cranfield School of Management and other leading business schools.
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STRATEGY

STRATEGIC ALLIANCES

Philip Davies, Cranfield School of Management

This article will describe the role and characteristics of strategic alliances, outline a methodology for managing them, and then illustrate the dangers of an inappropriate alliance by discussing the failed alliance between Volvo and Renault. It will not cover the legal issues around alliances, although existing legislation and the new competition law in the UK may have implications for co-operative strategies. Finally it will pose some questions for debate.

Introduction

Strategic alliances are currently very much in fashion. Indeed, it is argued that for some global industries, such as airlines, independent firms may no longer exist in the future – there will only be alliances. Some managers, however, distrust alliances and see them as simply a merger waiting to happen. I argue here that strategic alliances can be a sensible strategy, provided that the decision is taken for sound reasons and provided that the relationship is properly managed.

What is a strategic alliance?

A strategic alliance is any form of co-operative linkage entered into for strategic reasons. The linkage may or may not result in the setting up of a separate legal entity, ie a joint venture. It therefore includes research and development partnerships, joint ventures, cross-manufacturing agreements, cross-distribution agreements and joint marketing. Strategic alliances can be long-term and open-ended or quite short-term. It is also possible – as was the case with the Honda-Rover strategic alliance, which began with a small scale R&D relationship in 1969 – for relationships to grow in scope. The key is that both parties gain a strategic benefit from the relationship.

Why do firms enter into strategic alliances?

Firms enter into strategic alliances to gain competitive advantage and they choose alliances – over the acquisition route – either because they are unable, through lack of finance or national barriers, to acquire or because they choose not to acquire.

There needs to be a strategic analysis of the rationale for a proposed alliance. What reason is there for a co-operative linkage? Is the firm expanding into new markets, seeking to maintain existing markets, or is it trying to expand a product range? If the firm is looking for a partner to provide a range of services they do not do themselves, the alliance is complementary. If the firm is seeking to increase what it currently provides, as is the case in the airline alliances, then the alliance is capacity-building. Complementary alliances are more likely to survive over time than additive alliances because the two firms are not directly competing.

The motives for alliances are multiple and include: risk sharing, learning about a new market or a new way of working, adding or increasing capacity, laying the foundation for future strategies, developing a new technology, or defensive. A final motive for firms to enter co-operative relationships is that they have to. This is the case in the construction industry at present in the UK, where Private Finance Initiative deals have to be managed in a partnering process. The motive for the alliance is the main determinant for the choice of alliance form.

How do firms choose which form of alliance to seek?

The form of the alliance is affected by the motive for setting it up, by the experience of the firms involved in managing co-operative relationships, and by cultural fit. If the relationship is limited in scope, involves a separate management of assets, and is taking place in a new market then a joint venture (JV) is the best option. JVs can be either equity or non-equity based. Operative strategy, and environmental factors must also be taken into account. If there is no easy boundary to the relationship, the outcomes are uncertain, and if the future is unclear then some form of informal collaboration, possibly with a Memorandum of Understanding, is chosen.

The form of the alliance will change depending on the success of the relationship, how the partners get on in practice and the reaction of others to the relationship. Sometimes firms choose a low-risk collaboration with a number of partners to test out who they want to work with in the future. For example, the Honda-Rover alliance started in 1968 with a technology exchange programme.

Research into successful alliances (Faulkner, 1995) shows that there needs to be a cultural and strategic fit between the partners. The more complex the relationship, the greater the effort needed to make it work. The research shows that simple two-partner JVs between partners of a similar size who are not a threat to each other – ie they don't compete – are more likely to survive than a multiple-partner consortium between competing firms.

Other forms of co-operative relationships

There are many other forms of co-operative relationships, such as supply-chain, consortia, cross-licensing or joint distribution. Some of these are traditional, but a new trend is partnering. Here firms partner each other to carry out a specific project, such as the construction of a new rail line. In a partnering system the risks and the rewards are shared among the partners. For example, if the project is brought in ahead of time then the rewards are split. The experience of partnering in the UK construction industry has been largely positive. Firms may also choose to belong to industry networks where there is no common ownership but simply a history of working together. Such loose arrangements are historically common in France and Italy. An example would be Benetton's manufacturing firms: Benetton retains control of key technologies such as dyeing the finished garments and managing the franchisees.

Managing a strategic alliance

What is the best way to manage a strategic alliance? There needs to be a fit between the culture of the two organisations and the business benefits. Both have to see a win in the arrangement. There also need to be close working arrangements at all levels, from top management down. What commonly goes wrong is that the alliance is announced in the press, there is visible top management support, but then the benefits expected from the relationship somehow do not surface. On further analysis there is either a lack of good quality relationships at working level, or the situation shifts dramatically. This might be a change in exchange rates, the development of a new technology or some corporate disaster unconnected to the alliance. Managing an alliance is likely to be easier if there is no competitive activity between the partners elsewhere and if there are experienced managers to run the relationship at operational level. The following case study demonstrates what can go wrong with alliances.

Case study: the Renault-Volvo alliance

In 1990 Volvo and Renault agreed to establish a strategic alliance. They knew each other well through 20 years of industrial co-operation. The motives for the alliance were to exploit sizable potential synergies in joint product development, purchasing and manufacturing and to create complementary firms to compete in the global marketplace. The two CEOs got on very well and

all the commentators thought that it would work. The alliance worked quite well initially but then the French began to push for a full merger. The Swedes resisted and broke off the arrangement. The subsequent problems almost bankrupted Volvo and most of the senior managers involved left. Research into the failed alliance concluded that the quality of relationships did not extend far enough down the organisation, while the aspirations of the state-owned French company were never fully discussed. Real cultural differences were not addressed, while the joint decision-making structure was very poor.

The outcome of the failed alliance is that Volvo has now merged with Ford. Renault therefore lost an opportunity to build capacity in the global automotive industry. Volvo's experience with Renault has also made the French company an unattractive partner. This is in contrast to Ford, who have a reputation, from their track record at Jaguar and Aston Martin, of developing brands.

Summary

Alliances are another form of delivering corporate strategy. They must not be entered into because they are fashionable or to avoid industry consolidation. Overall they can be very successful, as examples like the 20-year Dow-Corning Alliance show, but they can go wrong. However for firms who want to expand markets or develop new technologies, a co-operative strategy can be the best solution. It is also now increasingly the case that being able to co-operate and partner is an essential corporate competence. This is demonstrated by Ford's reputation in the automotive sector as a good partner.

Questions

Before considering an alliance or any other type of co-operative relationship the following questions must be addressed:

1. What co-operative relationships does the firm currently have? What are the purposes of these relationships? To what extent have they been successful?
2. Does the potential partner have a culture that we can work with?
3. Can the anticipated business benefits be achieved in any other way?
4. Is there top management support and stakeholder support for the relationship?
5. Has an exit strategy been agreed?

Further reading

■ *Collaborating to Compete*

Bleeke, J and Ernst, D (1993) John Wiley

This is a selection of articles into global strategic alliances and acquisitions by McKinsey consultants and others. There is good research covering JVs in Japan.

■ *Alliance Advantage: the Art of Creating Value through Partnering*

Doz, Y L and Hamel, G (1998) Harvard Business School Press

The authors develop a sophisticated analysis of interorganisational relationships around the simple concept of value: the extent to which activities add or destroy value.

■ *International Strategic Alliances*

Faulkner, D (1995) McGraw-Hill

This book develops a theory of international alliances around the concept of cultural fit and business activity fit. The importance of the relationships between the gatekeepers in both organisations is emphasised.

■ *Good Practice Guideline 13 Valuing Partner Contributions in Strategic Alliances*

HRM

STRATEGIC HRM & MANAGING CHANGE

Katie Truss, Kingston University

This article describes approaches to strategic HRM, and how the HR process should work to reinforce an organisation's strategy. It notes the difficulties in effecting organisational change, and sets out HR's contribution to the process.

Introduction

All organisations set out to perform well, and many are now realising that the way in which their people are managed is a major contributory factor in achieving success. 'Personnel' is no longer seen as a back-up administrative function responsible for issuing contracts, paying people and handling disputes. They have a much more strategic role to play.

How can this be achieved? Managing people strategically is not a clear-cut process. In an ideal world, it would involve careful analysis of the overall strategic direction of the business, matching the strategy for people management to the strategic objectives, and then aligning the individual human resource strategies in areas such as selection, development and appraisal with one another to ensure they were all pulling in the same direction. This was the approach advocated by some of the 'classical' strategic HRM gurus in the 1980s.

Strategic planning and human resource management

Based on the general approach of some of the best-known strategy theorists, the advice given to organisations was that for each organisational strategy there was a human resource strategy that was most appropriate. The task was to 'match' the human resource strategy to the business strategy the organisation was pursuing.

Miles and Snow (1978), for instance, in their classic analysis, identified three effective strategy types:

- **Defenders** who produce a narrow range of products in a relatively stable market segment, which they then 'defend' against newcomers.
- **Prospectors** who are constantly on the look-out for new business opportunities and are much more varied in their structure and skill base.
- **Analysers** who have characteristics of both and have a mixed structure.

Miles and Snow argued that, for each of these strategies, there is an associated HR strategy. Defenders, for instance, will wish to 'build' human resources, whilst prospectors will acquire them, and analysers will focus more on allocating them.

This basic idea has been developed and extended by Lynda Gratton (1994). In her work, she underlines the importance of the alignment between what she terms 'strategic intent', or the strategic direction in which the business is going, and what is going on in the HR area. She also notes that these 'HR processes' themselves should all be seen to be pulling in the same direction.

When mixed messages are sent out to employees, performance is necessarily affected. So, for instance, if the organisation wishes to encourage team work but actually rewards people on the basis of their

individual performance, then collaboration will be undermined. Similarly, if managers are expected to develop and train their subordinates but are not given any time, or incentive, to do so, then short-term targets will be given priority.

In order to help organisations achieve this alignment, Gratton has developed a Strategic Risk Analysis Matrix, which enables managers to look to the future to assess the gap between where their strategy is taking the organisation and the current strengths of the organisation's human resources. The areas requiring most urgent attention are those which expose the organisation to greatest risk in the long term and where current capabilities are weak.

For instance, one large European company which used this matrix found that, whilst their strategic intent was internationalisation, they lacked the number of experienced international managers needed within the company, and could not rely on the external market to provide the rest. This was consequently identified as an area of great risk for the company, requiring immediate attention, given that it can take 10-15 years to develop managers with sufficient international experience.

Approaches such as this are very helpful in underlining the important role that people can play in the successful realisation of strategy, a factor that is often overlooked. The assumption is that a strategy can be developed and that the people will just 'slot in' afterwards. The reality is that the two need to be considered in tandem; all strategies have a people implication, and this has to be addressed at the earliest possible stage, given the long-term implications of many HR strategies.

Achieving successful change through strategic HRM

In this context, it is useful to think about how strategic HRM can contribute to organisational change in the longer term. Effecting change within an organisation in the light of a new strategic direction is a complex, long-drawn-out process. Patterns of behaviour become deeply embedded in the culture of an organisation, and are difficult to shift. Individual responses and behaviour are crucial in determining the effectiveness of the change processes; it is well known that people tend to resist change. The way in which they are managed during the period of change impacts on how well they adapt.

Organisational change can involve four phases:

- 1 **Exploration** The organisation decides whether it wants to make changes, and commit resources to planning the changes.
- 2 **Planning** Understanding the problem, collecting information, deciding on an action plan.
- 3 **Action** Implementing the planned changes.
- 4 **Integration** Consolidating and stabilising the changes so they become part of the organisation's everyday life.

Viewed in this way, there is a strategic HRM dimension to each stage of the process:

Phase of change	Human Resource implications
Exploration	Outlining the HR implications of proposed changes Establishing and allocating HR resources needed for change
Planning	Collecting information about likely HR impact of changes Planning resource implications
Action	Managing the change process Involving employees in change and keeping them informed Training staff
Integration	Putting HR initiatives in place Embedding the changes in everyday life Reinforcing the changes, eg through incentive schemes

Thus, change is seen as a cyclical process involving planning, action, evaluation, and more action and evaluation. HR has a crucial role to play at all stages, as people's reactions to and involvement in the change process will determine how successful the change is.

Strategic HRM: the reality

Whilst it is useful to think about the role HRM can play in strategic change, we should not forget that, in practice, the process may not be so straightforward. Neither strategic planning nor human resource management should be seen as purely rational processes. In reality, organisations are political places, and people's behaviour and attitudes influence the change process.

Change is not something that happens just because someone says it should. Most organisations are going through a continuous process of adapting to changing conditions, even if it is not planned. It becomes important, when change is viewed in this way, that change management is a competence every manager has, and that includes the ability to scan the environment and assess the impact of trends.

Summary

We have examined two opposing views of strategic people management. According to one, people can be managed strategically, from the top down and in a planned way. Human resource strategy can be matched with organisational strategy in order to achieve high levels of performance.

According to the other perspective, organisations exist in a turbulent environment. Finding ways of understanding that environment and analysing its impact on the structures, systems, processes and people of the organisation are crucial to success. The ability to harness that understanding exists at all levels in the organisation, and is not the preserve of the executive elite.

The reality is that, in most organisations, strategic human resource management will be a mixture of both: some interventions will be planned at the top and rolled out through the organisation; others will emerge through implementation or contextual events.

So what can the senior executive do to optimise the strategic management of people? Some of the key activities are:

- Ensuring all elements of the HR system are pulling in the same direction; eg, if you want teamwork, appraise people for their teamworking skills and reward them for high levels of achievement in this area.
- Ensuring consistency with the overall strategic direction of the organisation.
- Looking to the future and identify the major risks for your organisation in the HR area in the medium to long term – start taking action now.
- When putting in place change programmes, involving the HR department at all stages.
- Being aware that change does not just happen as part of a planned programme – change management skills are always needed.

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Gratton, L. *Business Strategy Review* (1994) vol 5, No 1, pp 47-66
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Miles, R E and Snow, C C (1978) McGraw-Hill

Further reading

- ***Managing Change: A Strategic Approach to Organisational Dynamics***

Burnes, B (2nd edn, 1996) Pitman

A useful and accessible examination of all aspects of change management.

- ***Human Resource Management: Rhetorics and Realities***

Legge, K (1995) Macmillan

This book undertakes a critical and scholarly review of current thinking on human resource management, suitable for the Master's level student and above.

- ***Human Resource Management: A Critical Text***

Storey, J (ed) (1995) Routledge

A useful text with contributions from leading scholars debating current trends and issues in human resource management.

MARKETING	UNDERSTANDING THE CUSTOMER
	<p data-bbox="544 241 1222 277">Helen Mitchell, Cranfield School of Management</p> <p data-bbox="517 320 1361 533"><i>In this, the first of two articles on understanding the customer, we focus on the customer as an individual. The article looks at who the customer is, and what factors affect the decision to buy. It ends with a detailed case study examining how Tesco implemented a customer-centred strategy. Because of the breadth of the subject, an extensive further reading list is provided. In the next article on marketing, we will look at business-to-business marketing, with the organisation as customer.</i></p>

Why do we need to understand the customer?

Cast your mind back to DuPont's leather substitute, Corfam, Sir Clive Sinclair's energy-efficient transporter, the C5, and Ford's famous fiasco, the Edsel. History is littered with examples of products that were launched with very expensive marketing campaigns and which the public refused to buy, but they all serve to highlight the danger of ignoring the customer. Although, on paper, all of these appeared to be winning products, these companies had not done a sufficient job of analysing their prospective markets and they learnt too late that the customer had different ideas. Any market is made up of people with money to spend and the willingness and ability to spend it, but the safest assumption to make is that a customer's buying behaviour is never simple.

Who is the customer?

An important consideration is to understand the differences between the customer and the consumer. Put simply, the customer is the *purchaser* of the product or service and the consumer is the *end-user*. Mattel's Barbie illustrates this point; the company advertise and promote to their consumers, ie small girls, to create awareness and demand for the product, but their customers are the parents, friends and other family members who purchase the product. It is equally important to understand the motives and behaviour of both. This distinction also applies in business-to-business markets, but those issues will be covered in a later edition. In this article we will examine the consumer market, which consists of all the individuals and households who buy or acquire goods and services for *personal* consumption.

Consumers vary tremendously as to their ages, income, education, mobility and tastes. Markets are so complex that the marketer needs to understand fully consumer motivations and behaviour in order to develop products and services relevant to those needs. Marketers need to ask several questions: What decisions do consumers make? What are the influences on them? And how are those decisions made?

Consumer buying decisions

There are many differences between different types of purchases. Howard and Sheth (1969) distinguish between three types based on complexity of purchase.

1. **Routinised response behaviour** The simplest type of buying behaviour which applies to low-cost, frequently purchased items like washing powder, batteries, butter etc. Shoppers know the main brands and do not give much thought to the process: these are called 'low involvement' purchases. The marketer's task is to maintain the brand message and quality for purchasers and try to attract non-purchasers into breaking their routine by the use of displays, price promotions and tastings.
2. **Limited problem solving** This refers to purchases when buyers are unfamiliar with a brand in a product class that is familiar to them. For example, training shoes are familiar to most, but

consumers may need to learn more about new brands before purchasing. These consumers are trying to reduce risk through gathering information so the marketer needs to communicate to them to gain the consumer's confidence.

3. **Highly involved problem solving** This refers to items of high cost or when consumers are in a product class they know little about. Computers are a classic example, when the consumer can be bewildered by the complexity and choice as well as aware of the high risk of making an unsatisfactory purchase. Marketers need to facilitate the consumers' learning and reassure after purchase by offering post-purchase service.

Added to these different levels of purchase complexity there are also a number of influences on the individual consumer.

Influences on buyer behaviour

Many factors influence the decision-making processes that consumers experience. Some are the result of external conditions, including culture, social class, status, age, reference groups, life stage and family influences. Others, such as needs, self-concept, motivation, beliefs, learning and attitudes are generated from within the consumer. All of these provide a deeper understanding of why buyers behave as they do. For example, many consumers hold the belief that German cars have the best engineering and the marketing campaigns targeted at consumers by BMW and Mercedes attempt to strengthen that belief. Whilst the limitations of space do not permit any further discussion of these issues, *Principles of Marketing* by Philip Kotler explains them in much greater detail.

The consumer buying process

The buying process can be seen as a series of stages (Kotler, 1997):

- Problem recognition.
- Information search.
- Information evaluation.
- Purchase decision.
- Post purchase behaviour.

By understanding how consumers go through these stages, the marketer can pick up many clues as to how to meet their needs. There may be a different number of participants and different influences at each stage, but what is important about this model is that it emphasises that the buying process begins long before the purchase itself and has consequences long after. Once the buying process has been analysed in depth, the marketer can devise a programme to influence the consumer at the relevant part of the process. This is a complex task, but many recent developments in technology have made this far easier.

Technology and consumer information

In the past, companies have had to rely mainly on attitudinal research to try and understand consumer behaviour, but over the last few years developments in database technology mean that, for the first time, these techniques are now complemented with hard data on behaviour. Supermarkets can now analyse shopping behaviour in much greater detail. The case below illustrates how the introduction of the loyalty card by Tesco has revolutionised their understanding of their customers and Tesco's ability to respond to their needs.

Another important benefit of new technology is that companies can now interact with their customers and communicate in a way that was previously impossible. The advent of the World Wide Web and e-mail has had a tremendous impact not only on how companies reach customers but on the information which customers can now access about products and services that are relevant to them. The truly innovative companies are leveraging IT to transform their businesses fundamentally, some becoming virtual companies (see Clark (1997)). Amazon.com has created a larger physical presence than any physical bookshop, with over one million titles that the customer can browse freely. More importantly, they can communicate with their customers *during* the purchase process mentioned earlier. When a book is selected, Amazon automatically suggests related titles the purchaser might find interesting and also sends details of new books to customers' e-mail addresses. Customers also write their own book reviews, which has created a community of reader/customers, helping to generate the current figure of 49% of business which comes from repeat orders.

As well as customer interactivity sites are used as a cost-effective way of informing customers about products. Catalogues containing vast product ranges like Lands End (<http://www.landsend.com>), virtual food company, Hot,Hot, Hot (<http://www.hothothot.com>), and complicated data like General Electric (<http://www.ge.com/plastics/>), have cut the cost of printing and distribution drastically and any updates are easily and cheaply changed. At Microsoft's site, customers can listen to live audio broadcasts of Microsoft conferences, download free programs and interact with the company and other customers.

Whilst many of these sites have still to show profit, one thing is for certain, they have changed the rules of engagement between company and customer and will have a lasting influence on how and why customers behave as they do.

Case study : The Tesco Clubcard launch

The Clubcard launch in 1995 was an integral part of a move, by Tesco, to a customer-centred strategy. Launched as a 'Thank You Card', it allowed the company to develop one-to-one relationships on a corporate level. The cost of running the scheme is considerable. In addition to the 1% discount on sales, it was estimated that start-up costs alone were £10m but the company was convinced that this was money well spent. During pre-launch trials at 14 stores, over 250,000 Clubcards were issued, representing an uptake at the sites involved of between 70-80%. During the trials, high-spending customers were identified and given special treatment, including invitations to 'meet the staff' cheese and wine evenings at their local stores.

The success of the trial Clubcard paved the way for the UK national launch. Membership of the scheme was open to all Tesco customers through any of its (then 519) stores. Cards were issued on application and were able to be used to accumulate points on every shopping trip. The customer presented the magnetic stripe card at the checkout, where it was swiped through existing credit card reading equipment. Details of the customer's purchases were recorded, with Clubcard points automatically awarded for every £5 spent in the store, over a minimum of £10 per visit. Points are added up quarterly and (provided that the customer has accumulated a minimum of 50 points) money-off vouchers are posted directly to customers' homes to be redeemed against future spending. In addition to the vouchers, customers also receive money-off promotional vouchers for specific branded goods.

The costs of the mailings were high. By October 1996 these were estimated to be £11m alone, but Tesco was seeking a return from this investment. *The card was an important tool for gathering individual customer data:* what they purchase, how much they spend, when and how often they shop, with the information revealing a great deal about the lifestyles of the shoppers themselves. It allowed Tesco to segment its customer base according to *real purchase behaviour* (rather than a version of purchase behaviour based on demographic or socio-economic stereotypes). The intention was to use the data to build loyalty through relevant, value-based offers, mailed to the homes of specific groups of customers.

By the end of March 1995, one month after the launch, over 5m people had joined the Clubcard scheme and Tesco recorded a like-for-like increase in sales. Clubcard's impact on sales was

confirmed by independent researcher, AGB, who announced that, according to their Retailer Share Track monitoring system, Tesco had surged ahead of Sainsbury (for the first time) to become Britain's leading retailer of packaged goods.

After the enormous success of the launch, and as customers became used to using the card, Tesco began to realise the full implications of running a nationwide loyalty scheme. Communication was proving to be a two-way process, hundreds of letters and up to 30,000 calls were received every week from customers keen to find out more or comment on the Clubcard service. It became clear that refinements would be needed, many in direct response to customer requests. One of the first of these was the introduction of a second card to enable another family member in the same household to have their own card which proved to be more convenient for the two shoppers in the household. Another was to lower the minimum spend required for pensioners to £5, since many had complained that they were unlikely to achieve the £10 amount to qualify for points, as they were living alone and did not buy large volumes. It emerged from early Clubcard data that pensioners shopped very frequently but filled smaller baskets. This was also later applied to students through the introduction of a Student Clubcard with a lower spending threshold before which points were awarded.

However, not everything was plain sailing. One of the earlier problems to emerge with Clubcard was in the sheer amount of data that was being collected. As well as having one of the largest customer databases in the UK, this was also continually updated with purchase information, every time an individual customer used their card. Initially, there were rumours to be problems with data overload as the system struggled to cope with the volume and complexity of the data being collected.

The value of information

Another issue to tackle was exactly how to use the information collected. The database management was initially out-sourced. Meanwhile, the consultants worked together with an in-house team, with the intention of Tesco developing their own expertise over time. A timely reminder of how difficult it was going to be was evident in the first mailing of money-back coupons to over 5 million Clubcard holders in May 1995. The first mailout, worth over £12m in money-back vouchers, also offered money-off promotional vouchers for specific goods. Initially, these were for an own-label product, PG Tips tea and Coca-Cola. One industry commentator wisely commented at the time, 'it makes no sense to give the same amount or product to all customers, the more personalised and specialised the communication with customers, the better'. His words were to ring true. Although the mailing was enthusiastically received by members, many also wrote to say that they were mystified by receiving offers for Coca-Cola. One typical complainant remarked that he had never drunk the product in his life and, as he was 85 years old, was very unlikely to start now! This proved to be an early lesson for the database team and, as a result, the next mailing to pensioners was an offer for biscuits, which had a more successful 25% redemption.

Another aspect of the information gathered that was to prove valuable was that concerning the ways that people shop. It emerged that different types of people shop at different times: the family shopper with their need for large family packs and bulk buying would usually shop on a Thursday or Friday afternoon: the singles or young couples would visit on a Friday evening after work and purchase a higher level of 'luxury' items and wine than a family shopper. This information was then used to make sure that the stock and the in-store offers were relevant to the time that particular shoppers used them.

The Clubcard magazine

A year after the launch, due to the database facilities that had been developed, segmentation of Clubcard members was possible. In March 1996 the store announced the planned launch of the first Clubcard Magazine. Produced in five different versions to suit five different lifestyle bands (students, younger adults without children, younger people with families, older people with children and pensioners), each version of the magazine was tailored to suit its audience. Students would read features about overseas travel, parents would read about family issues and so on; offers in the magazine were also designed to be appropriate to each group. Each publication carried promotions, competitions and advertising from many suppliers as well as information on new product launches on branded and own-label goods. The magazine proved to be highly popular, with high redemption of money-off tokens, which Tesco attributed to their value and relevance for each of their customers.

Understanding the customer

Tim Mason, Tesco's recently promoted Marketing Director, saw the real impact working at the local level: 'I believe that the key to the future is going to be an individual response to individual customers. Micro Marketing will be at the forefront of our future strategy. It is no good talking about which is the "best shopping trip"; you have got to deliver the best shopping trip for each and every customer.' He predicted that each of the 524 stores would become a marketing unit, where staff would get to know their own customers individually and understand exactly what they wanted from their shopping experience.

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Kotler, P (1997 edition) McGraw Hill
- 'Welcome to My Parlour'
Clark, B H *Marketing Management* (Winter 1997)

Further reading

- ***Principles of Marketing***
Kotler, P, Armstrong, G, Wong, V and Saunders J (1996) Prentice Hall
A basic text which gives a good grounding in consumer behaviour. Contains many interesting and helpful cases and examples in an European context.
- ***Rocking the Ages: the Yankelovich Report on Generational Marketing***
Walker Smith, J and Clurman, A (1998) Harper Business
A very interesting and readable book from the US which looks at generational marketing in which consumers are interpreted on then basis of their generation, ie 'baby boomers' exhibit different behaviour to that of 'Generation Xers'.
- 'Selling in Cyberspace'
The Wall Street Journal (17 June 1996) Technology Special Section
- 'Small Businesses and Effective Web Marketing'
Wilson Internet Services (<http://www.wilsonweb.com/webmarket>)
- 'Welcome to My Parlour'
Clark, B H *Marketing Management* (<http://www.ama.org>) (Winter 1997)
Some interesting papers on the growth in marketing on the Web, including useful tips, advice and examples.

FINANCE

DCF AND INTEREST RATES

Keith Parker, Cranfield School of Management

The focus of the next few finance articles in Management Quarterly will be shareholder value and company valuations. As a grounding for those future articles, this issue recaps the basics of discounted cash flow, which should be familiar to most accountants. The article explains the principles of the time value of money, the difference between net present value and internal rate of return, and how a project/company is evaluated using the techniques. The 'further reading' section gives some pointers to more advanced techniques.

Introduction

The use of Discounted Cash Flow (DCF) techniques to assist in investment decision making has been commonplace for many years now. This article will briefly review the basic DCF techniques, and discuss some of the issues arising from their use.

What to include

Before applying DCF techniques, it is necessary to decide which figures are actually relevant to the decision to be taken. There are four fundamental rules to follow.

1. First, we are only interested in *future* cash flows. Those which have happened already, such as the costs of a marketing study (already undertaken) that has helped us to estimate better our likely future cash flows, are sunk costs that cannot be 'undone' and are therefore not relevant to our decision, even if allocated to the project P&L.
2. Only incremental cash flows should be included – ie those that would not have happened anyway. Thus, when head office decrees that, if the project goes ahead, it will be allocated a certain level of overheads in the firm's internal accounting, these should only come into the calculations to the extent that there will be a genuine increase in overheads. A simple reallocation of existing overheads is irrelevant.
3. Look specifically at cash flows – for example, the amount and timing of the actual payment for a piece of machinery, rather than the annual depreciation charge. One needs to be careful here of being too pedantic about the definition of 'cash flows' because, for example, cost *savings* arising from the project are very relevant to our calculations, despite not involving a *literal* cash inflow.
4. Finally, the impact of the project on the whole enterprise should be taken into account. If the project will cannibalise sales from elsewhere in the organisation, the lost cash flows should be included as outflows in the project calculations. Equally, if the project is expected to have a positive knock-on effect on other parts of the business, that should be included as an inflow.

The basic technique

Imagine that you owe me £100, but you come to me today and offer me two choices: either to pay me the £100 now, or £125 in two years' time. The going interest rate, known in this context as the discount rate, is 10%. If I take the £100 now and invest it at the discount rate, it will be worth $£100 \times 1.10 = £110$ in one year's time, and $£110 \times 1.10 = £121$ in two years' time, with interest compounding. £121 is the *terminal* value of £100 in two years' time at 10%. I can therefore see that the offer of £125 in two years

is preferable. However, I am more interested in what £125 in two years is worth in today's terms, because in practice I will be considering cash flows at many different dates in the future, and it is much easier to bring them all back to today's value than carry them all forward to some future date.

To achieve this, I have to rearrange the equations. What I have done so far is –

$$100 \times 1.10 \times 1.10 = 121$$

ie

$$100 \times (1.10)^2 = 121$$

or

$$121 \times \frac{1}{1.10^2} = 100$$

We know that £121 in two years' time is the equivalent to £100 today. Substituting £125 into the equation instead of £121:

$$125 \times \frac{1}{1.10^2} = 103.31$$

Ie £125 in two in two years' time is the equivalent of £103.31 today – the *present value* is £103.31. Thus, I am comparing £100 today with the equivalent of £103.31 today, and the latter is clearly preferable.

The factor $1/(1.10)^2$ can be re-written in general terms

$$1/(1+r)^n$$

where r is the discount rate in decimal terms, and n is the number of years into the future that the cash flow is predicted to occur. Tables are published of the appropriate *discount factors*, as the product of $1/(1+r)^n$ is described, (for example, see Brealey and Myers (1996) in the suggested reading), and most spreadsheet programs include a discounting function. All future cash flows are thus subjected to the appropriate discount factor to bring them back to what they are 'worth' today.

A brief example follows:

Having followed the four basic rules of which figures are relevant to the calculation, you have predicted the net cash flows from a project as:

End of year	0	1	2	3	4
Net Cash flows	-400	+100	+200	+200	+80

(Year 0 represents 'now' – the start of the project.)

The appropriate discount factor is now applied to each cash flow, and the various present values summed to give the Net Present Value.

End of Year	0	1	2	3	4
Net Cash flows	-400	100	200	200	80
Discount factor @ 10%	1	0.909	0.826	0.751	0.683
Present Value	-400	90.9	165.2	150.2	54.64
Net Present Value	60.94				

In the example, there is a positive net present value (NPV). The implication of this is that, if the discount rate is correct and the anticipated cash flows indeed materialise, then the shareholders will be better off if the company carries out the project than if it doesn't. We will return to these 'ifs' in a moment.

Meanwhile, there is a further extension to DCF techniques. If you substitute different discount rates into the example above, you will eventually find one that yields a zero NPV – this rate is called the Internal Rate of Return (IRR) of the project, and signifies the discount rate at which the company would be indifferent as to whether or not it carries out the project – it will neither gain nor lose by so doing. Again, most spreadsheet programs will perform this calculation.

In the example, since 10% yields a positive NPV, we can deduce that the IRR must be *higher* than 10%, as higher discount rates reduce the present value of future cash inflows. The IRR in this case is 16.9%.

Many companies use the IRR because it is straightforward to understand – if the IRR exceeds the company's appropriate discount rate, then the project should add to shareholder value. However, the Net Present Value is technically a superior measurement. This is for two main reasons. First, when comparing NPVs of several different potential projects, that with the highest NPV, all other things being equal (and with no capital constraints), will unequivocally be the best, irrespective of the initial levels of outlay. With IRR, this is not the case. Which would you rather have – a project returning 20% on an investment of £1m, or a return of 25% on an investment of £100? Also, IRR does not cope very well with projects which have negative cashflows subsequent to the initial outflows on the project. Such projects often have more than one IRR, due to the implicit assumption in the calculations that surplus funds are reinvested at the same rate as the *project's* IRR.

To return to the 'ifs' above. Two major questions have always arisen with DCF techniques: how to allow for risk – the degree of likelihood that the cash flows will *not* turn out to be as predicted – and what discount rate to use.

One way to deal with risk is by running the figures with best, worst and intermediate scenarios, as described in *Management Quarterly 1*, and seeing what that does to the NPVs. But what about the discount rate? This will be dealt with in depth in later articles, but briefly, the rate generally used is based on the company's Weighted Average Cost of Capital (WACC), which is derived by taking the company's cost of equity and post-tax cost of debt, and weighting them according to the proportion the company has of each.

As an example:

Prop'n of Equity	Cost of Equity*	Prop'n of debt	Cost of debt
60%	x 14%	40%	7%
=		=	
8.4%		2.8%	
WACC = 8.4 + 2.8 = 11.2%			

*Cost of equity will be covered in *Management Quarterly 4*.

Note that the WACC takes account of the financing cost of the project and the tax deductibility of debt interest. No financing costs should appear in the project cash flows. This is because the cash flow forecast is used to derive the amount of funds available to satisfy all sources of finance, both debt and equity. Therefore, any funds used to pay interest, dividends or repayments are *applications* of those funds, and do not belong in the calculation.

(It should be noted that there are alternative methods of discounting. For example, if cash flows are discounted at the cost of equity rather than the WACC, this indicates that the user is concerned with

the cash flows available to satisfy *equity providers only* – and so the debt interest and repayments would be seen as outflows in this instance.)

In arriving at a discount rate, the WACC may be adjusted up or down to take account of the project risk, which may be higher or lower than that associated with the company as a whole.

Interest rates

The cost of debt relates to the interest rate paid by the company, less tax. There are three main determinants of the interest rate that a firm will face on its debt:

- Liquidity preference.
- Inflation.
- Risk.

First, there is what Keynes described as '*liquidity preference*' – the compensation that lenders demand for foregoing the use of their own money for a period of time. Historically, this figure has been around 3% pa. Of course, receiving an annual interest level of 3% would be of zero benefit if *inflation* had simultaneously reduced the value of the capital by 3% pa, and hence the lender demands compensation for anticipated inflation during the period of the loan. Furthermore, investors will wish to be compensated for the perceived *risk* that they will not receive their interest, or their capital, or be repaid principal. This is the third constituent part of the interest rate: compensation for perceived risk.

Thus, the yield to redemption of Government stock reflects liquidity preference and inflation expectations at the present time. Most – probably all – company borrowing will be perceived by the lenders as riskier than lending to the Government, so this element of the total interest charge can be quite substantial.

A company facing an interest rate on its debt of, say, 10%, might effectively be paying 3% for liquidity preference, 3% to allow for anticipated inflation, and 4% risk premium. (Note that in adding the percentages together we are being a little lax with the maths – technically, the interest rate combining the factors above would be $1.03 \times 1.03 \times 1.04 = 1.1033$, or 10.33%.)

Recent developments

Increased sophistication and computer power in recent years has added a further dimension to DCF techniques. Instead of simply summing the cash flows for the project and applying the WACC (perhaps risk-adjusted) to those flows, there is no reason why each *line* of the cash flows should not be subjected to a different discount rate according to our perception of its risk, or indeed to use a different discount rate for each *column* if we predict future changes in the discount rate. Moreover, some companies are now using the concept of Adjusted Present Value (APV) as described in the Harvard Business Review articles in the suggested reading below. This is arguing that financing structures these days are so complex that it is better, first, to value a project (using NPV techniques as described above) assuming only equity financing – ie discounting at the cost of equity rather than WACC – then to calculate the effects of debt and the tax-deductibility of debt interest, as a separate item. The results are then added together to give the APV of the project.

The important fact about the ideas in the above paragraph is that they rely on value additivity – the NPV or APV are the *sums* of the discounted cash flows. In essence, the techniques unbundle the cash flows so that different approaches can be taken to each category, then add up the results. Managers can then

see the effects of each individual component on the final outcome, and thus make more informed and better decisions – which is, of course, the point of the exercise.

Further reading

■ *Principles of Corporate Finance*

Brealey, R A and Myers, S C (5th edn, 1996) International Edition, McGraw Hill

This very readable textbook discusses many of the issues raised in this article. Includes discount tables in the Appendix.

■ *Investment Appraisal and Financing Decisions*

Lumby, S (1991) Chapman & Hall

Not for the faint-hearted, but if you really want to investigate this subject in depth, this is the book!

■ 'What's it Worth? A General Manager's Guide to Valuation'

Luehrman, T A *Harvard Business Review* (May-June 1997)

A very accessible introduction to the concepts of APV and other approaches to project evaluation.

■ 'Using APV: a Better Tool for Valuing Operations'

Luehrman, T A *Harvard Business Review* (May-June 1997)

This gives the nuts and bolts of APV technique, including a comprehensive worked example.

OUTLINE SYLLABUS

Management Quarterly is designed to be an three-year endeavour, setting out key management techniques in core disciplines. Over that time, it is expected that the content may develop and change. However, here we set out the current anticipated syllabus for the journal.

Strategy

What is strategy? ✓ *Part 1, October 1998*

What does corporate HQ do? ✓ *Part 2, January 1999*

Strategic alliances ✓ *Part 3, April 1999*

Competitive strategy

Strategic analysis tools – the external environment

Strategic analysis – assessing internal resources

Linking external and internal analysis

Strategic choice: stakeholders

Strategic decision making

Strategic change

International strategy

The future of strategy

Human resources

Introduction to people management ✓ *Part 1, October 1998*

Changing roles and responsibilities ✓ *Part 2, January 1999*

Strategic HRM and the management of change ✓ *Part 3, April 1999*

Resourcing the organisation

Motivating and monitoring

Developing the organisation

Personal development and people management competencies

Managing conflict and difference

The role of trade unions and collective representation

Impact of the European Union

International HRM

Ethics and corporate governance

OUTLINE SYLLABUS – *Continued*

Marketing

Marketing in today's world ✓ *Part 1, October 1998*

Marketing planning ✓ *Part 2, January 1999*

Understanding customers – the consumer ✓ *Part 3, April 1999*

Understanding customers – the organisation

Market research and information technology

Market segmentation and positioning

Analytical tools for marketing

Managing the marketing mix

Developments in marketing

Relationship marketing

Branding

International marketing

Finance

Planning and reporting ✓ *Part 1, October 1998*

Operating and business systems ✓ *Part 2, January 1999*

Interest and discounted cash flow ✓ *Part 3, April 1999*

The cost of equity

The cost of capital

Shareholder value

Valuation of companies

Financial instruments

International finance

Mergers and acquisitions

Project finance

Venture capital

Articles are also being commissioned to cover: project finance, information systems, just-in-time operations, total quality management. Further material on people management, concentrating on the individual rather than the organisation, will also be included.

Copies of the journal articles referred to can generally be obtained through the Institute library. A charge is made for these articles, based on the number of pages to be copied.

IN THE NEXT ISSUE . . .

Strategy *Competitive strategy*

How does a company match up to its rivals, and how is it seen by its customers? The strategic compass is introduced as an analysis tool.

Human Resources *Resourcing the organisation*

Different stages in recruitment, selection and assessment. How resourcing processes link to the organisation's strategy. Recent trends in recruitment and selection.

Marketing *Understanding customers – the organisation*

Who is the customer? Characteristics of business-to-business marketing. The business buying decision process, and developments in purchasing strategies. Building alliances and relationships.

Finance *The cost of equity*

The Capital Asset Pricing Model (CAPM) and the dividend growth model. Equity risk premium and how it has changed over time.

Project Management *Introduction*

An introduction to project management.

Management Quarterly will act as an aide-memoire for members, provide new ideas, and encourage good practice, but the Faculty cannot accept responsibility for the accuracy or completeness of issues of *Management Quarterly*. **Being general in nature, the points made in *Management Quarterly* may or may not be relevant to specific circumstances.** Responses from the membership will be a very important part of the successful development of the series. Comments please, to Chris Jackson on 0171-920 8486 (or by e-mail to CDJackson@icaew.co.uk).

Management Quarterly is compiled and edited by Ruth Bender, who joined Cranfield School of Management as a lecturer in 1994, having completed her MBA there. Prior to this, she was a corporate finance partner in Grant Thornton. Ruth is a member of the Faculty committee.

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Part 2: January 1999

Part 3: March 1999

Any members who have not received the above should contact Chris Jackson at the Faculty using the contact details set out below.

**Faculty website – <http://www.icaew.co.uk/finman.htm>
(*Management Quarterly* is available for downloading as PDF files)**

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