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STRATEGY

Service operations strategy 2

FINANCE

Behavioural finance and the finance director 13

MANAGEMENT

Enhancing innovation performance 18

HUMAN RESOURCES MANAGEMENT

Empowerment by subterfuge

Donna Ladkin, p 9

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Service operations strategy

Service businesses face different challenges from those encountered by manufacturers, because customer interaction is seen as part of the service product. This article focuses on managing the operational implications of running a service business in the context of what has to be done to be successful. It suggests that certain characteristics are key, and it offers some case studies and tools to assist managers in evaluating their own offerings.

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Introduction

This article outlines the stages in the development of a service operations strategy.

It describes key decision areas for the operations manager, and indicates how these may be linked together in a cohesive framework for analysis. The framework has been used with service strategy development teams across a range of industry sectors.

Most effective strategies evolve, and the concepts described here have been used as a vehicle for generating ideas and options for service development.

A particularly damaging outcome of the current focus on the short term may be that the operations function is seen as a dinosaur that is unwilling or unable to change. More significantly, there may not be an operations contribution to the strategy development process, leading to a disconnection between the vision and the implementation plan.

Operations managers must become more proactive in identifying competitive opportunities arising from the development of operational capabilities. They must contribute fully to the strategy development process rather than just concentrate on 'getting the job done'.

Why service operations strategy ?

For many operations managers, the daily challenges of meeting targets, dealing with customer complaints, and managing large numbers of staff leave little time for looking at longer-term issues.

While this approach might have been acceptable in more stable times, the problem is that the manager now has no time or energy left to engage in strategic thinking to ensure that the service operations retain their competitive edge.

There is clearly a requirement for service operations strategy, not only in commercial businesses, but also in public sector and 'not for profit' organisations that must compete for funds and resources.

Linking operations and strategy

One problem for operations managers is that, for the organisation to succeed, there must be a short-term focus on delivering results. This requires an attention to detail that may lead to the operation being 'micro-managed', leading to incremental improvements that may be ineffective in strategic terms.

Figure 1 is an overview of a framework that enables operations managers to view their decisions in terms of their contribution to the strategic process.

For simplicity, it is shown as being sequential, but effective strategies generally evolve, and therefore there are many more potential relationships than are shown here.

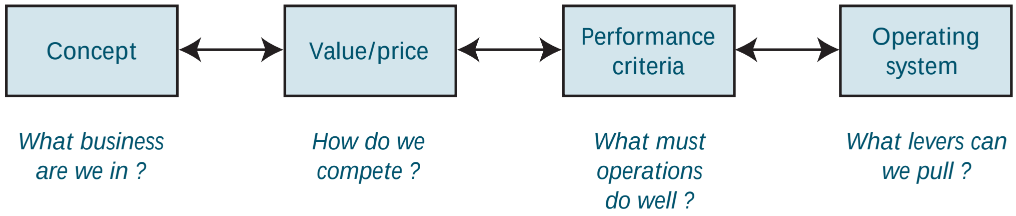

Figure 1 Linking operations and strategy

The manager's first pass through this framework should probably generate more questions than answers. A key success factor is the ability to identify what information must be collected before decisions can be made.

What business are we in ?

The service concept provides an organising framework for strategy development in terms of the benefit delivered to customers. It is critical that operations managers understand their service concept(s) to ensure that they remain focused on *what* they are providing rather than concentrated solely on *how* they do it.

For example, an insurance company provides peace of mind to its policyholders. The operations function must therefore judge its success through this particular lens rather than purely through a mechanistic view of how well it performs its processes. It is possible to be excellent at things that may be irrelevant to customers.

Figure 2 expands this idea to illustrate the operations contribution to the service concept.

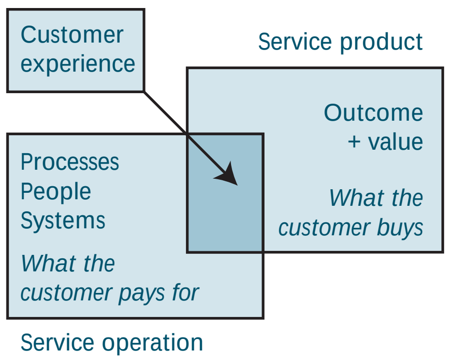

Figure 2 Service concept

In services, it is critical that the operations function be fully integrated into the customer proposition. Most services contain a degree of customer interaction, which should be considered as part of the service product.

For instance, the three elements of this operational view of the service concept for an insurance company are as follows :

- *Service product* : The customer of the insurance company ultimately buys peace of mind. This is then translated into more tangible benefits in terms of 'what do I get for my money ?'. This is an amount of cover that is evaluated against the size of premiums to be paid. A particular difficulty with this service is that the benefit is a future payment that many customers may hope they never require.

- *Service operation* : A proportion of the insurance company's income from premiums and investments pays for the structure and infrastructure of the operations function. Each department is provided with an operating budget for its various activities. A potential danger is that this may lead to the various processes being managed as stand-alone activities rather than the operation being managed as an integrated whole.

- *Customer experience* : The customer experience is the area of overlap between the service operation and the service product. These are the point(s) at which service delivery processes impact directly on the customer. In an insurance company, these include the initial sales information, advertising, the provision of advice, documentation, and the claims process.

It is important to note that the customer experience must be carefully defined and managed rather than left to chance.

To achieve consistency and depth of customer experience, the company must manage the total chain of activities from initial supplier to end customer as an integrated whole.

Without this integration, the customer experience deteriorates into a defensive customer service activity focused on managing the increasing number of customer complaints.

How do we compete ? What must operations do well ?

The second and third elements of *Figure* 1 are closely related. Having decided on the nature of the business, the organisation must decide how it is to compete in each of the market areas it has identified. Simplistically, is the strategy going to be to provide high-volume, low-price services, or will it be to deliver low-volume, customised and high-margin services ?

The key task is to determine the operations contribution to this competitive position.

The operations performance criteria need to be identified and grouped into two categories :

- *order-winning criteria* (OWC) : those aspects of operations that create competitive advantage;
- *order-qualifying criteria* (OQC) : those aspects of operations that it is essential for the organisation to deliver.

The fundamental difference between the two is that increased investment in OWCs leads to greater competitiveness in terms of the operation's ability to win customers, whereas once the OQCs have reached parity with those of the competition, further investment does not yield any further benefits.

It is essential to note that OQC under-performance results in lost customers.

It is also important to recognise the point at which yesterday's OWCs become OQCs.

For example, an OWC for computer service used to be engineer response time. If a company could offer a faster response time than the standard eight hour response time, it would gain customers. Once the industry standard had become two hours, customers were not interested in a faster response, and this aspect of the service provision became an OQC. It should be noted that this did not mean that response times did not need to be managed carefully. Failure to meet this OQC almost certainly led to customer dissatisfaction and lost business.

Indeed one of the issues for operations may be that there are many customer-sensitive OQCs and few OWCs, and thus fewer customer plaudits and potentially more customer complaints, which provides a motivational challenge for operations managers.

Operations performance criteria can be grouped into a number of categories. The following list is adapted from Slack, Chambers and Johnston (2001) :

- *cost* : the ability to deliver low cost services;
- *quality* : either the ability to produce services to a higher specification than those of the competition, or the ability to deliver them more consistently than the competition, or a combination of both;
- *dependability* : the ability to keep customer promises;
- *flexibility* : the ability to deal with rapid changes in level of demand, the ability to introduce new service products, and/or the ability to provide a wide range of service products;
- *speed* : the ability to deliver services more rapidly;
- *relationship management* : the ability to build strong relationships with customers.

When developing a service operations strategy, it is vital to understand which criteria have the most impact on the customers' perception of the organisation.

It is also important to note that having a strong brand may be a key element of competitive strategy, but it is not included in the list of operations criteria. However, the operations function must be clear as to what must be done to build or support a brand.

The operations performance criteria define the operations task in terms of how the organisation deals with its customers. To this extent, they describe the external impact of operations performance, although the six areas above also have an impact on internal service processes.

For example, a professional services firm may not compete on price, although it will be interested in delivering service more cost-effectively.

Similarly, an organisation that develops a competence in managing internal service relationships will probably deliver strong customer relationships more effectively.

What levers can we pull ?

The final segment of the service operations strategy process is to decide which of the various levers in the operations system will be most relevant to the delivery of the required OWCs and OQCs.

The areas to be addressed include the following :

- process design;
- resources management (strategies to develop and manage capacity);
- the extent of vertical or horizontal integration;
- facilities decisions (the nature and location of investment);
- technology strategy (the nature and role of technology in business improvement);
- people issues (teamwork, motivation and reward, skills development, succession);
- operations planning and control (the management of priorities against customer deadlines);
- quality management;
- productivity improvement;
- the management of supplier relationships and partnerships;
- the management of the customer experience.

The operations system and the actions required to improve it can be identified using these headings.

To prevent micro-management, as discussed above, each of these areas must be viewed through the lens of the service concept to ensure that it is consistent with the required task.

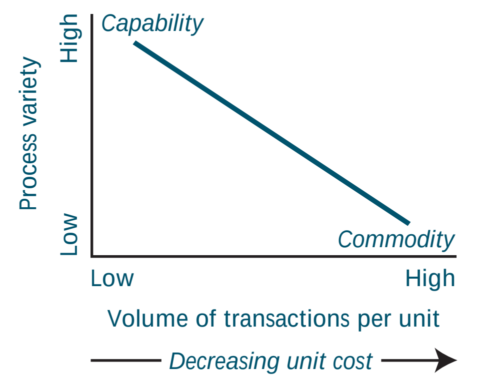

Figure 3 Volume/variety matrix
[Johnston and Clark (2001).]

There is not space in this article to discuss each of the areas in detail, but a key framework for understanding service operations strategy is shown in *Figure* 3.

There are two key parameters that impact on the nature of operations in general :

- *Process variety* : This is the extent to which the service delivery process changes significantly from customer to customer. It is possible to have a wide range of outcomes from a service without there being changes in the basic process.
- *Volume of transactions per unit* : This relates to the scale of the operation. A major supermarket faces different challenges from those of a corner shop for instance.

Figure 3 shows two ends of a spectrum of operations, namely commodity and capability.

Capability operations are characterised by flexible resources. Examples of these types of service organisation are small professional service operations and bespoke software providers. These are generally based on the skills, knowledge and expertise of the individuals employed by the organisation. These operations are best suited to flexible working, using resources and processes that are adaptable, rather than to high-volume, low-cost operations. Capability operations win on flexibility and innovation rather than on lowest cost. A challenge for these operations is that they may not deliver particularly consistent services, as there is a tendency for both people and processes to start from scratch with each new project.

Table 1 Capability and commodity processes

Capability processes	Commodity processes
High process variety	Low process variety
Low volume of customer transactions	High volume of customer transactions
Focus on capability, flexibility and provision of customer solutions	Focus on quality consistency, availability and efficiency
Lengthy customer transactions that are of unpredictable length and volume	Customer transactions that are short, standard in terms of content, and relatively predictable
Process flows designed to meet individual customer requirements	Rigid processes with opportunity for automation to reduce costs and variability
Process capability often based on individuals' skills and knowledge	Process capability based on careful design of processes and resources that minimises reliance on individual employees
Flexible people and control systems	People and systems dedicated to a narrow, clearly defined set of tasks
Customer-facing employee who is the designer and deliverer	Customer-facing employee who is part deliverer, order taker, complaint handler
Customer frequently a key member of the service team, and a significant resource	Customer primarily order giver; may be a resource for the final delivery process

[Adapted from Johnston and Clark (2001).]

At the other end of the spectrum, commodity operations are more focused on designing robust processes to be consistent. Examples range from multisite operations such as fast-food restaurant chains to high-volume services delivered by people with professional qualifications such as surveyors or auditors. These operations are suited to competing on low cost, availability and rapid response. A particular challenge for these operations is to avoid becoming too robotic as people mechanistically follow a script or process and ignore the customer.

There is insufficient space in this article to discuss the differences between capability and commodity operations in depth. Some of the key differences are listed in *Table* 1 as an indication of the challenges faced by service operations at these two extremes.

It can be seen that there are similar levers across the various processes. Flexible processes require flexible people and control systems, which may well be appropriate for low-volume service operations, but become increasingly expensive as the volume increases.

Managing multiple service concepts

Many consumer retail services (for example fast-food restaurants) are organised around a single service concept. This is an opportunity to develop an operations process that is entirely consistent with the strategic approach.

This is not true for more complex service organisations, as *Figure* 4 shows.

A start-up operation may be located at position 1 in *Figure* 4. As the market for the service offered grows, the operation grows to position 1a, perhaps adding a similar service product at position 2. This largely high-volume service commodity provider also offers lower-volume capability services at positions 3 and 4.

If the organisation attempts to deliver all four services through the same service

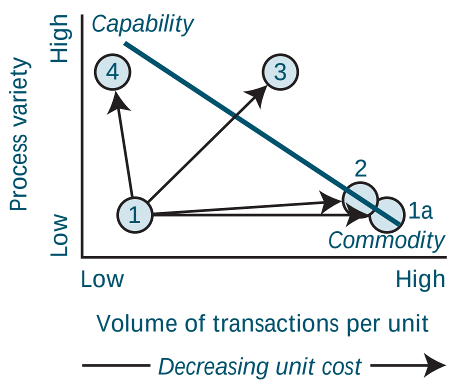

Figure 4 From start-up to starburst

channel, it is unlikely that they will meet quality and productivity requirements equally well. There is usually a compromise with respect to some, if not all, of the services.

For example, a computer service organisation had its 'centre of gravity' at the commodity end of the spectrum. It provided high-volume repair services to its customers at low cost. It then saw an opportunity to add software support to its portfolio.

Unfortunately, this activity was positioned more towards the capability end of the spectrum, and it required different resources and key performance indicators. An attempt to use the same people and the same approach failed.

A financial services company valued capability operations, focusing on developing innovative products. It opened a customer service call centre that required a commodity approach, and found that the culture of the company as a whole did not support the ethos required to deliver low-cost and consistent transactions. The company decided to open a new customer service centre to deliver this concept at a different location with people drawn from other service sectors.

Operational transitions

The development of service operations strategy is a continuing story. As the previous section illustrates, the task for the operation is continually evolving as the overall strategy for the company changes and as new service products are introduced.

Figure 5 shows some of the approaches adopted by operations managers to deal with the transitions required. Two broad trends are illustrated.

Capability operations may need to change as the market grows and becomes more commoditised. The choice for these operations is either to deliver high-volume, standard services using the same flexible processes, or to invest in greater process definition and specialisation. If no investment is made, service will be delivered at high cost and with inconsistent customer experience. While this may be an appropriate interim solution, it will probably not be sustainable in the longer term. If the organisation chooses to invest in standardisation of processes, it may well prove to be unacceptable to existing staff, who may feel that their autonomy is threatened.

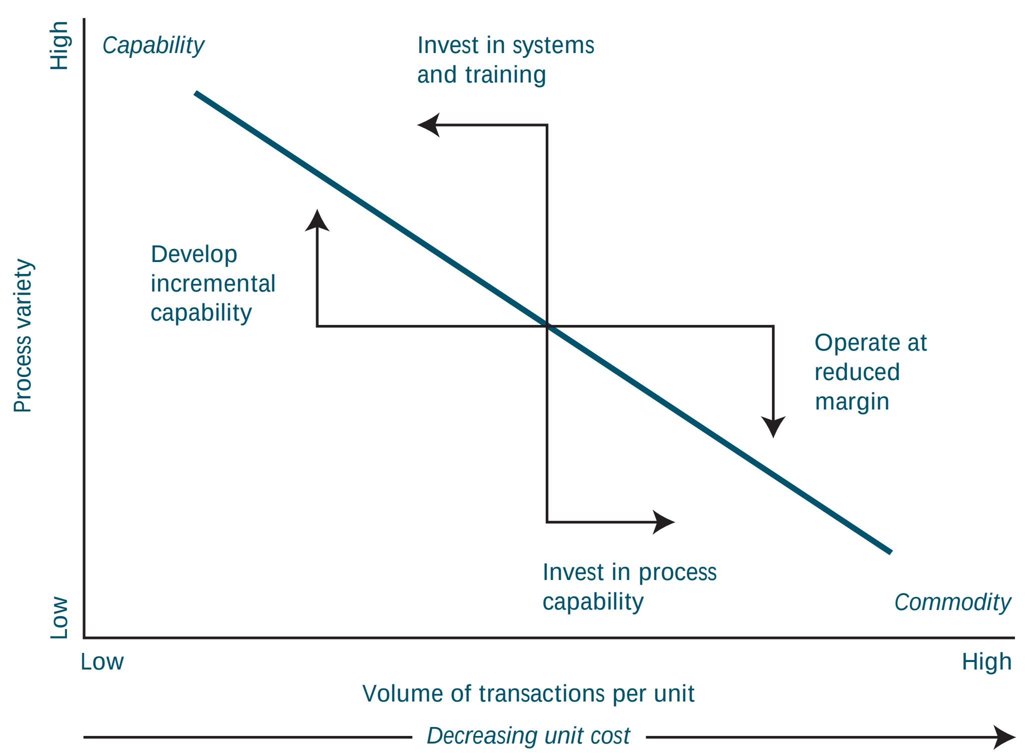

Figure 5 Managing operational transitions

Commodity operations may wish to compete through increased choice and personalised service. This may well require the professionalisation of staff who were recruited to deliver routine service. Investment in technology and training will facilitate this change, but this investment frequently follows the marketing imperative so that there is a period of time during which staff are insufficiently supported in delivering service to the revised customer expectation.

Conclusions

Operations managers must take an active role in the development of corporate strategy.

The acid test of strategy is the customer perception of both outcome and experience, and these may only be delivered to appropriate standards when the operations system has been designed with regard to changes in service concept and competitive strategy.

Given the increasing complexity of many service operations, managers must become more proactive in the development of the future shape of service delivery processes and the motivation of the people involved in them.

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  Provides more examples of linking service concepts with operations design.

Empowerment by subterfuge

Much has been written about the need to empower employees in organisations. This article takes a fresh look at the subject, examining why empowerment is seen as a good thing and discussing ways in which it can be introduced. It also presents a frank view of the pitfalls of empowerment and why it often fails to achieve its aims.

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Something about the word 'empowerment' raises my hackles. Maybe this is because of the fundamental contradiction within the concept itself. After all, if a manager empowers his or her staff, the power to bestow or reclaim the empowerment still rests with the manager. Too often, power is conferred until something goes wrong; then it is immediately reclaimed by the manager 'in charge'.

No wonder eyebrows are so often raised in cynicism when the boss comes back from a course full of enthusiasm for empowering everyone. Too frequently, staff involved in empowerment initiatives learn that when the programmes are pitted against harsh financial targets and operational realities, they are forgotten along with other organisational development fads, like many other great ideas.

Nevertheless, an empowered workforce remains a sought-after quality of organisational culture. Its benefits are in line with the needs of organisations trying to compete in the fast-changing marketplace. Empowered employees

- enable a firm to respond nimbly to fluctuations in customer requirements;
- are purported to be more creative and innovative;
- are generally happier and less prone to chronic absenteeism than their disempowered counterparts.

However, although initiated with the best of intentions, many efforts to create an empowered organisational culture fail.

This article suggests that the best way to foster empowerment, by either top-down or bottom-up means, is through subtlety, subterfuge and incremental shifts rather than ticker-tape pronouncements or 'putting everyone through a course'.

If you are interested in promoting an empowered culture, you need to start by unearthing a few assumptions.

Basic assumptions

The thing to remember about basic assumptions is that they are largely unconscious. You may not adhere to them publicly or openly, but they nonetheless inform your behaviour.

Let us go all the way back to Douglas McGregor's theory Y and theory X (McGregor (1960)).

Individuals who in terms of their basic assumptions subscribe to theory X believe people to be inherently lazy and to dislike work. The only way to get them to work is through coercion or offering them enough money. A further assumption is that the average human being likes to be directed, dislikes responsibility and desires security above all else.

On the other hand, those who assume that theory Y is true believe that human beings have an innate need to work, and engage in it as easily as they play. They believe that job satisfaction is an intrinsic factor in overall life satisfaction, and that people like to stretch the limits of their creativity and innovativeness to achieve good outcomes.

An essential ingredient if an empowerment initiative is to succeed is that those who are spearheading it, and a sufficient number of those charged with enacting it, must subscribe to theory Y. If you have too many managers who subscribe to theory X, or those who do are in powerful enough positions, do not waste your time initiating empowerment in your organisation. Your workforce will know it is doomed to failure, and will probably quite quickly provide you with all kinds of evidence that 'it won't work here'.

Dependency culture killer

A key to the success or failure of any empowerment initiative is the organisational culture into which it is introduced.

A culture based on dependency (the natural outgrowth of theory X basic assumptions) will kill off empowerment more quickly than you can read this article.

In a dependency culture, the buck never stops anywhere. Employees and managers are accustomed to up-delegating and down-delegating without being held accountable for anything substantive. Everyone is waiting to be told what to do.

This even applies to senior managers, who feel straitjacketed without board approval. The board in turn feels hamstrung by City analysts. The resulting miasma is not necessarily any individual's fault, but it is systemic, and it must be recognised and addressed before empowerment is possible.

Dependency is a common feature of bureaucratic organisations. The whole purpose of management within bureaucracies is to control, monitor and maintain the status quo. If it is enacted seriously, empowerment creates a tension between its goal of divesting decision making downwards and the bureaucratic principle of maintaining control. There is thus a systemic pressure to maintain dependency. Also, individuals working within such a system will resist empowerment if they fear punishment when that for which they take responsibility goes wrong.

Given the inherent organisational inertia with respect to employee empowerment from both the systemic dynamic and the individual perspectives, it is no wonder that so many empowerment initiatives fall short of their intentions.

However, what do you do if you believe that the pain will nonetheless be worth the gain ?

Motivation for top-down empowerment

If you want those for whom you are responsible to be empowered, you must first be clear as to *why* you want this. What benefits do you hope to gain from it ?

Divesting power is not easy to do. It feels risky, and it can tap into unconscious needs to be in control and to retain authority.

Once you have determined your level of commitment (and that of the key stakeholders whose support you will need), the next consideration is that of how you will know that your employees are empowered.

What measurable indicators will there be that empowerment is working ? Will your goal be that the number of customer complaints diminishes, for instance, or that absenteeism falls ? How long will it be before you can realistically expect these changes to take place ?

What is the downside ? How much are you willing to risk in order to make this culture change ?

Remember the apocryphal story about the employee who lost £4 million pounds in a difficult deal, and reported this to his line manager the next day expecting to be fired. 'What ? Fire you ? Not after all the money we just spent training you ! Why should we fire you when we know you won't make *that* mistake again ?' Would your response be similar if a comparable error was made by one of your empowered staff ?

Examine your responses to these questions in the light of the overall organisational context. Will your empowerment message meet with other, perhaps stronger, 'disempowering' messages in the organisation ? If so, how can you create a cushion around your own team so that you can experiment in a safer environment ? Who do you need to sell this idea to in your organisation, and how will you know you have their support ?

Get a fix on the situation

If you are aiming to empower your workforce, it probably means that you are currently maintaining practices and structures that are inherently disempowering.

Examine your part of the organisation to see which structures, reporting lines, and lack of goal focus disempower individual initiative. Identify in particular where responsibility for carrying out certain tasks is split from the authority to do so.

Examine the task–employee relationship. Is each role in your organisation clearly tied to the undertaking of a particular goal ? One of the causes of stagnation and disempowerment is a lack of clear task focus and poor understanding of why a task needs to be done.

Do the employees have the knowledge and necessary skills to undertake tasks successfully ? What jobs would stretch their capabilities, and how can you provide the training or experience that would enable this development to take place ?

One of the easiest mistakes to make is to empower a workforce before the staff have the skills and knowledge to take over the reins of power effectively. Inevitably, mistakes are then made, and this is seen as a justification for taking back the power. Everyone says ‘see, I told you so’, and goes back to square one. Your workforce will return to square one feeling demoralised and more cynical about future management initiatives.

Structures and systems

Organisational structures can be the single most disempowering factor for employees and managers to confront.

There is certainly no one organisational form that optimises potential for empowerment. That is a function of

- the objectives of the organisation;
- the level of sophistication of the workforce;
- the peculiarities of the organisational culture.

However, as a rule of thumb, the greater the number of people who need to be involved in a decision making process is, the less empowerment there will be.

Matrix structures in particular tend to inhibit empowerment because they split the individual’s reporting line. (They can, however, be empowering if the employee chooses to exploit slippage between reporting lines. See more on this below.)

One of the most important features of a structure that empowers is that the decision making limits are appropriate and clear for each layer of the hierarchy or project team. Even in empowered organisations, it is essential that the various members of the organisation have different degrees of power and decision making authority. Empowerment does not mean that all decisions must be taken by consensus. In fact, that would lead to the most dulling kind of stagnation. The more explicit boundaries are articulated, the more understanding there can be about the kinds of initiative that individuals can take in enacting their empowered status.

A further key lever in establishing a culture of empowerment is the organisation’s rewards system. It goes without saying that employees must know that they will be rewarded for taking the initiative when things go right, but are you committed enough to the empowerment ideal to reward them when things go wrong ?

Other characteristics of an organisation that supports an empowerment culture include the following :

- Space is provided for a diversity of voices to be heard during decision making processes. For example, do not neglect secretaries and tea ladies, who often have invaluable insights into the real requirements of customers, suppliers and other employees.
- Decision making processes are transparent. Even though it is appropriate for decisions to be taken at various levels within the organisation, the reasoning behind decisions can be explained to everyone.
- Forms of communication are open and dialogic rather than closed and pedagogic.

One word of caution is that the ‘e’-word should be used sparingly, if at all. Systems and structures that support empowerment can be established quietly and incrementally.

If this is done with commitment, empowerment will be just 'the way things are done around here' before you know it.

Bottom-up empowerment and the entrepreneurial mindset

Wherever you sit in an organisation's hierarchy, you do not have to wait for the folks 'up there' to gift you with more power than you currently have. After all, this may never happen.

Peter Block (1977) has suggested that empowerment is the right of any employee in any organisation. The most irreversible form of empowerment occurs when you take power, rather than waiting for it to be bestowed on you. Block suggests that the key is the enactment of an entrepreneurial mindset, when at each point in the day, you act as if the business for which you are working is your own.

This entails taking decisions as if the consequences of them will affect your own livelihood. It means stretching to the furthest possible limit the boundaries of your responsibility and authority. It means finding out for yourself

- how your part of the organisation fits into the overall structure;
- what linkages are key;
- how your role might be better fulfilled.

It means acting on the maxim that it is easier to ask for forgiveness than for permission.

Why do it, though ? If you are not going to be paid for taking on extra responsibility, for seeing your job as bigger than it is, and for doing more, why put yourself out ? The answer is that what you do not gain financially, you may gain in additional vitality and sense of purpose.

I am not suggesting that you should take on more and more until your life is out of balance. I am saying that the best route to empowerment is to empower yourself. Find out what kinds of power are respected in your organisation. Make it your business to maintain and even extend the limits of your own power base. This carries an element of risk, but the payoff is vitality, which keeps you alive.

Human beings, in my (theory Y) view, are basically intelligent, creative and fun loving creatures. However, this is not my experience of many people in organisations. Where does our vitality go ?

Perhaps my hackles would be raised less if the aim of managers was to vitalise rather than empower their staff. If people act from a vital part of themselves, they take the power they need to achieve what they believe needs to be accomplished, for the company as well as for themselves.

Empowerment, then, is about vitalising people so that they take power, ownership and responsibility for themselves. It is achieved most effectively through simple actions, without the 'e'-word ever being mentioned at all.

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Behavioural finance and the finance director

Financial decision making is driven not only by rational considerations, but also by aspects of personal and market psychology. We may believe that our actions are based on reason, but in practice our ability to make complex financial decisions is limited. This is the arena of behavioural finance, which enables us to improve our performance by recognising the biases and errors of judgement to which all of us are prone.

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Peter is a streetwise extrovert who talks quickly and wears smart clothes. Young, bright and dynamic, he has a slight East London accent. He works for a large investment bank. What is the probability that Peter is a derivatives trader ?

Recent dramatic events in stockmarkets worldwide have justified Alan Greenspan's use of the term 'irrational exuberance' to describe the behaviour of investors in December 1996. This warning, which has become a catch-phrase, has struck a cord.

There is a growing realisation that the theory of market efficiency beloved by financial theorists may be more complex than was originally believed. Also, more importantly, people do not necessarily act rationally as economists argue they should.

Market traders and finance professionals are now beginning to recognise that we need to learn from the psychologists about how we make judgements. By recognising that we are human and thus fallible and prone to bias, as opposed to *homo economicus*, we can significantly improve the decisions that we make.

What is behavioural finance ?

Behavioural finance is a new discipline that seeks to apply the insights of psychologists to the financial behaviour of market participants and financial decision makers.

Its purpose is very practical. If we recognise our own decision errors and the biases in our judgements to which we are prone, and if we understand the reasons for these, we will be in a better position to avoid making mistakes in the future. Similarly, we ignore the decision errors of others at our peril.

What issues are addressed ?

Behavioural finance research is developing rapidly. It is now beginning to answer questions such as the following :

- Why is stock price volatility so high, and why are prices subject to bubbles, as occurred with dot.com mania ?
- Why is the volume of trading in financial markets excessive ?
- Why is the premium on equity returns to bonds too high to be explained by risk alone ?
- Why are investment analysts unable to identify undervalued and overvalued stocks ?
- Why is it not possible to predict the future direction of capital markets ?
- Why do investors sell winners too soon and hold onto losers too long ?
- Why do we confuse 'good companies' with good investments ?
- Why are acquisitions bad news, on average ?
- Why do corporate managers find it so difficult to terminate loss making projects ?

- Why should initial public offerings exhibit short-run stockmarket outperformance and then long-run underperformance ?
- Why do many leveraged buyouts end in failure ?

Types of behaviour

Psychologists teach us that, because of our cognitive limitations, all of us, however professionally well qualified or experienced, are prone to exhibiting key biases in our judgements.

We are also frequently forced to resort to the use of heuristics (trial and error 'back of the envelope' rules of thumb), which we use to simplify our complex judgement or decision tasks. However such simplification strategies often have adverse consequences for the accuracy of the judgements we make.

Availability heuristic

We are liable to use the availability heuristic. Our estimate of the probability of an event occurring relates to how easily we can bring it to mind or imagine it. The more vivid and salient it seems to us to be, the more we believe that the outcome will occur.

An associated topic is illusory correlation, that is, how we see what we want to see and how we interpret evidence in terms of preconceived notions.

This bias goes some way towards explaining the prevalence of chartism or technical analysis in the capital markets, where practitioners read apparent patterns into what are actually random sequences of price or market movements.

Representativeness heuristic

We are also likely to make judgements on the basis of stereotypes rather than underlying characteristics. This is known as the representativeness heuristic.

Consider the question about Peter's occupation posed at the beginning of this article. What probability did you estimate ? Typically, answers given are well over 50%, even though probably a maximum of 1% of investment bankers actually trade derivatives. This is an illustration of how the representativeness of the situation can distort our judgement so that we forget the underlying factors that are at work.

There are other consequences of this heuristic :

- We tend to draw conclusions on the basis of very little information.
- We expect extreme performance to be followed by similar extremes, ignoring the tendency for regression towards the mean.
- We are liable to experience the illusion of validity, where our confidence in our judgements is a function of the representativeness of the situation, and not the underlying decision characteristics. One example of this is the way in which recruiters continue to rely on selection interviews, despite the notorious inability of interviews to predict future job performance.
- Investors and financial journalists are particularly prone to the 'good company, bad stock' syndrome. Analysts believe that well known and widely admired companies are good stockmarket investments, but the two turn out to be unrelated in practice.

Anchoring and adjustment heuristic

Another bias is known as the anchoring and adjustment heuristic. In this, decision makers anchor on an initial value when making assessments, and then adjust this up or down accordingly.

The traditional budgeting process is a good example of this, when current figures are used to anchor the budget for the following year.

Investment analysts use a similar process when making earnings forecasts and when doing stock valuations. They anchor on the current price/earnings ratio, and then adjust this up or down to arrive at a prospective ratio to identify potentially overvalued or undervalued equities.

This bias can also accentuate our inherent conservatism, so that we under-react to new information and work with overly narrow confidence intervals. Note the surprise of market forecasters after the outcome is known.

Frame dependence bias

An additional important bias is frame dependence. Our actual judgements depend not only on the underlying information we are given, but also on the way in which this is presented to us.

If the same problem is posed in different ways (reframing), there will appear to be changes in it, and consequently different decisions will be made about it.

Loss aversion bias

We are very loss averse. An expected loss typically has about two and a half times the impact on us as a gain of the same magnitude does. This is a crucial bias that has major ramifications for all of our decision making.

The psychological reasons for the strength of this bias are that such a loss is associated not just with regret and shame, but also a feeling of responsibility and associated blame. We inevitably seek to avoid all of these.

Loss aversion can mean that we are unable to close down loss makers. It can also lead us to overpay for acquisitions.

In the personal investment arena, we tend to sell winning stocks too soon, thereby avoiding potential regret associated with any subsequent price fall.

We also hold on to losers too long. This is colloquially known by professional traders as 'get-evenitis' disease. We find it difficult to close a position at a loss, and hope that if we hold on long enough the stock will return to the price at which we bought it. Remember how Barings was brought down.

We can overcome the problem of loss aversion to some extent through the use of rules to enforce self-control.

For instance, market traders who recognise this bias use explicit rules that say they must sell after a price decline of, for example, 5%, 10% or 15%.

Hindsight bias

Most people are vulnerable to the 'I knew it all along' effect, or hindsight bias. Once an event has happened, we believe that it was inevitable in foresight.

This bias, like many others, is highly resistant to correction through learning, because making sense out of what one has been told about the past seems so natural and effortless. We tend to override previously stored memories in our brain, which makes it difficult to reconstruct past experiences.

For example, once we know an economy is in recession, we believe that this was inevitable. Bankers can believe honestly that they have rarely been caught unawares by customer failures once these have taken place.

With this bias, past decisions may look wrong, even if they were perfectly reasonable in the light of the information set available at the time.

Attribution bias

With attribution bias, we attribute successful decisions to our own skill and judgement, and unsuccessful outcomes to bad luck or outside events.

This bias is frequently manifest in chairman's statements. It is also noticeable when investment analysts explain the subsequent market performance of their stock recommendations.

Internet stock traders are currently blaming the market and their Internet trading sites for their losses, rather than their own judgement.

Overconfidence, over-optimism and illusion of control biases

Another important behavioural pattern is overconfidence in our abilities. We systematically overestimate what we can do in comparison with what the objective circumstances warrant. The more difficult the decision task is, and the more complex it is, the more successful we expect ourselves to be.

The more information or data we have (the illusion of knowledge), and the more time and effort we put into making a decision, then the more control we feel we have over the outcome, and thus the more confident we are in its success. This is the illusion of control bias.

However, actual performance often has little or no relationship to confidence. Associated with the illusion of control is over-optimism.

People are generally predisposed to be excessively optimistic about the likelihood of particular desired outcomes.

This set of judgemental biases clearly helps to explain the poor outcomes of many takeovers, and the beliefs of fund managers and investment analysts in their superior investment abilities.

Impact on the work of financial directors

Recognising that such cognitive biases are an integral part of our day-to-day financial decision making is half the battle.

Practical examples of these issues are legion for finance directors.

Stockmarket valuations

We typically believe that the stockmarket does not recognise the true value of our company. This is because boards are prone to the biases of over-confidence and illusion of control.

However, the evidence shows that the market is usually right.

As a result, going private in a leveraged buyout as a result of an underperforming share price can be very unwise.

Finelist was until recently the UK's largest car parts group, and it had 7 500 employees. In February 2000, it was taken private by venture capitalists in an leveraged buyout.

It then went into receivership only eight months later because it was, amongst other things, weighed down by its debt burden.

The banks involved are nursing losses of £300–400 million, and unsecured creditors, including hundreds of its suppliers, will receive nothing.

Corporate turnarounds

We tend to overestimate our abilities in such situations as corporate turnarounds, because we are prone to both overconfidence and over-optimism.

A recent case in point is that of Luc Vandevelde, the chairman and chief executive of Marks & Spencer, who has been forecasting an upturn in performance since he took over the helm in February 2000.

He recently admitted that he had no idea what a mess Marks & Spencer was in when he took on the job.

Takeovers

Takeovers are another important issue. The shareholders of the acquirer often lose out, and acquisitions are often followed by divestment. If we the bidder overpay, this may well be because we believe that we can generate a better return from the acquired business than its existing managers, because of over-optimism and hubris.

In a bidding competition, we do not want to lose; loss aversion and the desire to avoid regret take over.

in 1996, Gerry Robinson's Granada took over Forte, then the UK's largest hotel chain, for £5.3 billion including debt. The takeover was hotly contested. After subsequent disposals and unwinding, the only beneficiaries now appear to have been the Forte shareholders and the two groups' professional advisors.

Loss makers

With loss makers and unsuccessful operations, traditional capital budgeting argues that projects should be terminated when the expected net present value is less than zero. However, in practice, managers often become entrapped in losing projects, and they tend to throw good money after bad in an attempt to rescue them. (This parallels the inability of investors to sell losing stocks.)

The more directly associated we are with a failing activity, the more reluctant we are to terminate it. We inevitably procrastinate when faced with realising the loss in the hopes that things will turn out all right in the end. We also want to postpone the resulting pain and regret.

We therefore need to institute self-control rules to enforce loss realisation. This can, for instance, be done via periodic net present value project reviews that are enforced externally to the project manager.

We also need to look at ways of reframing losses as gains. For example, we can assert that failing projects have redeeming features in that they lead to a greater understanding of customers, technology, markets, and so on.

Boards and loss making activities

Boards also often become entrapped in a failing strategy or project such as an unwise acquisition or a turnaround strategy that is not working. Examples can be seen in the financial pages every day.

Often, the only way to deal with such loss making activities is to introduce new managers with no ties to the current project. One example of this was BMW's decision to divest itself of Rover. Its stock rose by 10% in the month of announcement as a result. In the final analysis, takeover by another business may be the only way out.

Cognitive biases

We need to recognise that, although it is not possible to beat the stockmarket consistently, the cognitive biases to which we are prone make us believe that we can. They also make us psychologically resistant to acknowledging that markets are fundamentally efficient.

Summary

We need to be aware of the psychological biases that are at work in the decisions we make, and as a result be rather less confident about their outcomes.

On the other hand, it would be wrong to throw out all of finance theory, which is still a reasonable approximation of what happens in practice. This would be an example of the representativeness heuristic at work.

If we exploit our understanding of human behaviour, we will be in a better position to gain competitive advantage. Also, probably more importantly, this will help us to avoid making many decisions that would have gone expensively wrong.

Further reading

■ ***Beyond Greed and Fear* : *Understanding Behavioral Finance and the Psychology of Investing***
Shefrin, H (1999) Harvard Business School Press
A very readable and non-technical overview of the behavioural finance area; *particularly good in that it reviews various applications in practice.*

Enhancing innovation performance

Most companies these days realise the importance of innovation in their processes and offerings. However, managing this innovation is far from easy. This article considers the challenges of innovation management, and presents some ideas about how it can be improved. It also deals with the issue of how innovation can be measured at both a strategic and a tactical level, and presents a series of measures used in practice to monitor innovation performance.

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Fierce competition is forcing both manufacturing and service-based companies to look to innovation as a source of competitive advantage.

However, improving the performance of a company in this area is a real challenge, as there are several potential pitfalls. This article looks at ways of avoiding them.

It is based on the results of ongoing research conducted by Cranfield School of Management, including a study with the Export-Akademie Baden–Württemberg, Germany. Data on innovation performance were collected from hundreds of companies in Germany and the UK. In addition, detailed case studies were conducted at 16 companies, and over 80 managers were interviewed. All of them strongly believed that their organisations needed to become more innovative, but they also talked of the difficulties they faced in achieving this.

Managing innovation is complex, and another company's approach may not be applicable to your situation. The enhancement of innovation performance requires significant management time to be spent on developing and implementing an improvement plan that avoids the common problems.

Pitfall 1 : Misunderstanding innovation

Although almost every organisation would like to become more innovative, it is surprising how often management fails to communicate a clear vision of the role of innovation. This is the first pitfall. If your company is ambiguous about what it wants to achieve through innovation, then it is unlikely to be successful.

Although top management might have clear views, functional departments within an organisation often have inconsistent understandings of the role of innovation.

Typical views include the following :

- Innovation is the R&D department's responsibility.
- Innovation is based on creativity, which is impossible to manage.
- Innovation is solely concerned with new products, particularly breakthroughs.

The problems that result from these types of view within a company are significant.

For example, in organisations that perceive innovation as being synonymous with inventions and breakthroughs, the danger is that R&D is then seen as the only department that is directly responsible for innovation. Consequently, other departments do not strive to make significant contributions.

Similarly, managers who think that they will stifle creativity and innovation if they try to manage it are, by default, leaving innovation performance levels to chance.

There are many actions that management can take to stimulate innovation. For example, GlaxoSmithKline has recently created the position of innovation manager, to drive a more cross-functional approach.

To create a clear understanding of innovation within an organisation, an important first step is to review past performance.

Past performance : product innovation

With fast moving markets and shorter product lifecycles, many companies' revenues are dependent on new products.

Table 1 shows examples of the revenues earned from new products (defined as products that are less than three years old) for 298 companies in various sectors in the UK.

In the process sector (for example the chemicals sector), the average earnings from new products were nearly 16%. For the 101 engineering companies surveyed, an average of 23.7% of revenues came from new products. Not surprisingly, the electronics sector was most dependent on product innovation, with over 36% of its revenues arising from new products.

There are several things to note about the results shown in *Table* 1.

First, every sector is dependent on new products for a significant part of its revenues.

Second, average figures are given in the table. However, when we inspect the raw data, we find that there is a large spread in performance. That is, different companies earn vastly different amounts of their revenues through product innovation.

Further, the dataset analysed included a number of direct competitors. Although these obviously cannot be named, the data showed that the companies with higher innovation levels (that is, those that launch more new products per year) are achieving higher growth levels.

Companies such as Hewlett–Packard and 3M have successfully used the sales revenues from new products as a measure to drive innovation performance. Therefore, comparing your product innovation performance with that of your competitors is a useful exercise.

However, there is more to innovation than new products.

Table 1 Revenues from new products by UK sector

Sector	*N*	Mean revenues from new products, %
Process	34	15.9
Engineering	101	23.7
Electronics	74	36.4
Household products	89	18.4
Total	*298*	*24.4*

[Data taken from the Cranfield School of Management Best Factory Awards database. Data © M Szwejczewski and K Goffin, Cranfield School of Management, UK, 2001.]

Beyond product innovation

Companies need to promote all forms of innovation.

Figure 1 (overleaf) shows that innovation can also consist of

- new services;
- new or improved manufacturing processes;
- new business processes (for example radically improved order fulfilment).

Managing directors typically have a broad view of innovation, while functional managers often have a much narrower interpretation of it. For example, R&D managers concentrate almost solely on products, often overlooking the key role of process innovation as a source of competitive advantage. (See the Volkswagen Golf case study below.)

Manufacturing managers need to identify where innovative manufacturing processes can add competitive advantage to new products. This takes manufacturing far beyond its traditional role.

The potential for service innovation is also often overlooked, although it can be a source of differentiation in markets where there are many similar products.

Just as *Figure* 1 can give manufacturers food for thought about where they can innovate, service industries can also benefit if a broader view is taken.

An increasing number of service companies, in sectors from financial services to telecommunications, are recognising the need to become more innovative.

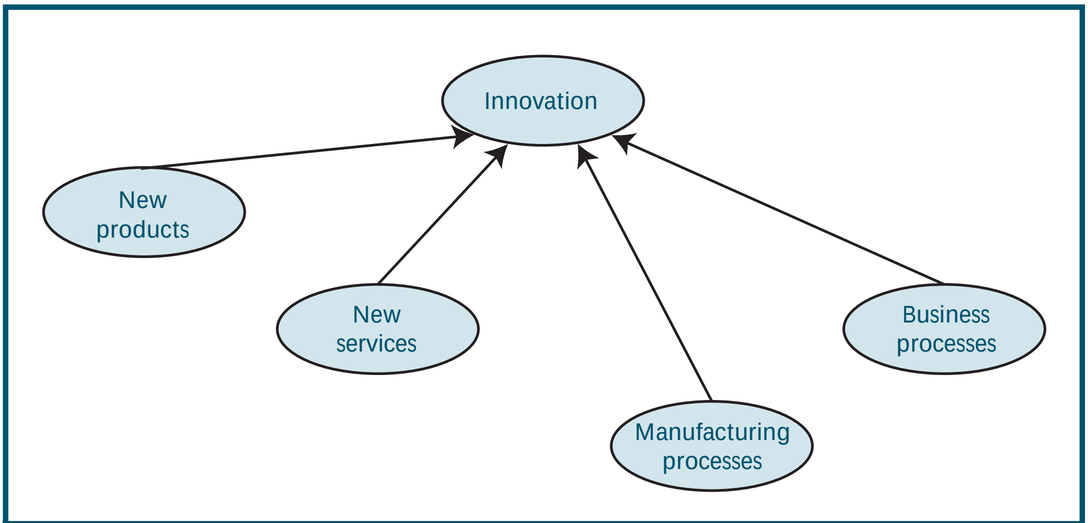

Figure 1 Innovation consists of more than just new products

For example, AXA Insurance in Ireland has appointed an innovation manager who is charged with increasing the organisation's ability to innovate through greater staff involvement and the sharing of knowledge. One of the first actions of this manager was to develop the innovation quadrant, a definition of the various ways in which innovation can be achieved.

Employees are encouraged to innovate by

- *creating* new customer-focused opportunities;
- *improving* existing products, services and processes;
- *eliminating* non-value-adding activities;
- *reusing* existing ideas and approaches (from within AXA or from competitors).

The last point of the quadrant (reusing ideas) is interesting, as it shows that innovation does not need to be based on completely new ideas. Adapting existing ideas can be a very effective strategy, and Texas Instruments, for example, has an annual prize for the best idea adopted from its competitors (the 'not invented here but we're glad we did it anyway' prize).

Case study : Volkswagen Golf production innovations

Companies that focus solely on product innovation miss the opportunities offered by process innovation or service innovation.

Recently, Volkswagen showed how a broader view of innovation can lead to real competitive advantage.

For years, the state of the art in car manufacturing has been robot-welded-on panels (for example front wings). However, for the latest version of the Golf, Volkswagen innovated within its production process, and it now uses bolt-on panels.

How did this enable Volkswagen to steal a lead on its competitors ? The answer lies in the analysis carried out at the design stage.

The company evaluated the probability of each part of a car being damaged in an accident, and the associated repair costs.

This is crucial, because car insurance companies closely monitor the costs of repairing accident damage. They then use this information in deciding which insurance class applies to a particular model of car. Hence repair costs have a direct influence on the cost of insurance, and insurance costs have a major impact on product sales.

The evaluation led to the introduction of bolt-on panels and bumpers moulded in separate parts (to allow partial replacement).

During product development, Volkswagen persuaded insurance companies to lower the cost of insuring the Golf by two classes throughout Europe.

As lower insurance costs are key in attracting young buyers, this led to an increase in market share. It also forced competitors to struggle to make expensive changes to their production lines.

Pitfall 2 : Perceiving innovation as a single discipline

Some years ago, a book entitled *The Innovation Marathon* (Jelinek and Schoonhoven (1990)) was published. Innovation needs constant and long-term attention from management, and in that sense, the marathon metaphor was appropriate.

However, the implication that innovation management consists of high performance in a single area is wrong.

For example, some companies believe that, because they have a well developed new product development process based on the stage–gate approach, this alone will lead to a competitive advantage.

In the stage–gate system, new product development (NPD) is divided into a number of key stages, for example product concept and prototype development. Before a project can proceed to the next stage, it must be assessed against the objectives set for last stage. This point is known as a gate.

This is a good approach, but it is not enough in itself. Companies must, for example, become better at selecting the most suitable projects in which to invest their limited resources.

Few companies believe that they have achieved high performance in all areas. For example, those that have put a lot of effort into developing a formal new product development process often identify a weakness in the generation of really innovative ideas.

Research has shown that innovation management requires good performance in five areas. A better analogy than the marathon is therefore the pentathlon (see *Figure* 2).

The five key areas of innovation management are as follows :

- *Innovation strategy* : This includes communicating the role of innovation within a company, deciding how to use technology, and driving performance improvements through appropriate performance measures. Surprisingly, most companies admit that they have ineffective measures for innovation performance, even though it is nearly ten years since Robert Kaplan identified the need for companies to introduce measures of innovation in the Balanced Scorecard (Kaplan and Norton (1992)).

- *Creativity and ideas management* : The stimulation of good ideas that address customer needs is crucial. As innovation includes new products, new services and new processes, the scope for ideas is wide, and therefore all employees should be involved. Ideas developed across functional boundaries can often lead to particularly strong innovations. As shown in *Figure* 2, the management of ideas entails filtering out a large proportion of the less important ones before the portfolio management stage, where the real priorities need to be identified, is reached.

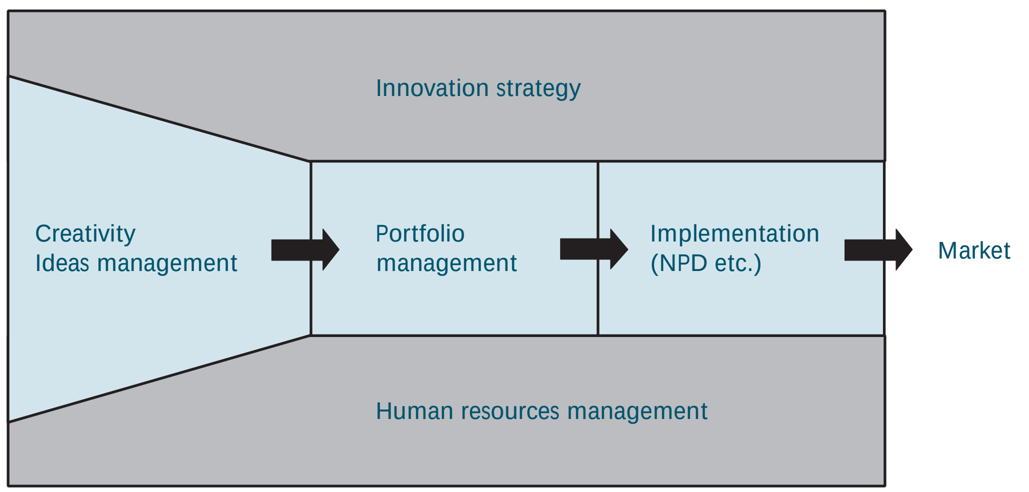

Figure 2 Innovation pentathlon: key areas of innovation management

Table 2 Potential innovation performance measures

Applies to …			
Company level	**Department level**	**Project level**	**Human resources level**
Companies and plants: Measures cover both strategic management of innovation (overall corporate goals, technology strategy, etc.), and creativity and ideas management	*Any department involved in innovation*: Many of these measures are useful for monitoring the progress of projects through R&D, or process innovation in a manufacturing or service department	*Specific innovation projects*: New product development and all other aspects of innovation, such as new services and new processes	*Employees in any department and at any level*: As appropriate
Possible measures …			
Innovation strategy	**Workload**	**Project characteristics**	**Employee level**
Percentage of revenues invested in product R&D Percentage of revenues invested in process R&D Number of patents Investment in technology acquisition Product innovation rate (compared with those of competitors) First-to-market frequency Percentage mix of projects by their strategic drivers (e.g. meeting of customer needs, reactions to competition, driven by technology, based on internal ideas) Process innovation rate (number of innovations per year compared with the total number of major processes used in manufacturing) Service innovation rate (number of innovations per year compared with the total number of services offered to the market) Average time to market Average breakeven time	Percentage mix of product/ process/service innovation projects Number and types of innovation projects in progress Percentage mix of project complexity (easy, intermediate, and complex) Hours worked per project Throughput efficiency of projects Percentage of time spent on project-related tasks Percentage of time spent on non-project (administrative and support) tasks **Efficiency** Average time required for a specific task (e.g. time to create an initial design) Percentage usage of appropriate tools and techniques (e.g. market research projects, computer-aided design, computer-aided engineering, design for manufacturability, design for assembly, computer-integrated manufacturing)	Complexity (a function of the number of product functions etc.) Percentage of new design over previous generation **Project quality/returns** Technical success of the project relative to spending Cost of development versus targets Commercial success measures (sales, market share, etc.) Number of engineering changes after launch Scrap rates in the factory Warranty claims Cost savings through process innovation (e.g. in manufacturing) Cost savings from improved business processes **Project costs** Total project costs Costs per phase compared with targets	Individual contributions to product, process (manufacturing or business) and service innovation versus clear innovation goals A numeric rating to summarise an employee's overall contribution to innovation (see Fischer case study) Team contributions **Human resources level** Percentage of employees achieving their personal innovation-related goals Results of internal innovation competitions with incentives Percentage of projects delayed or cancelled because of lack of human resources Percentage of personnel who have worked in more than one or two functions Percentage of projects delayed or cancelled owing to lack of funding Percentage usage of team-work best practices (e.g. simultaneous engineering, colocation, project champions, job rotation)

Table 2 ***Continued***

Return on investment		**Project timing**	Training per employee
Number of new products compared with competitors		Time to market	Cross-functional training
Unit cost reduction compared with competitors		Time to breakeven	Days per year per employee spent with customers
Sales revenues from new products/enhancements		Development hours per phase of project	**Learning organisation**
Sales revenues from new services		Time through each phase of project	Measures of experimentation levels
Cost savings/revenues from process innovation		Percentage of projects late against forecast	Measures of knowledge transfer
Return on sales		**Post-project reviews**	
Market share growth due to new products/ enhancements		Analysis and learning per project	
Profitability of the new product programme		Transfer of knowledge to other teams	
Percentage of projects that entered development and were ultimately considered a commercial success			
Ideas management			
Percentage of personnel trained in creativity and problem solving techniques			
Number of ideas considered per year for new products, services and processes			
Number of ideas per source			
Number of ideas chosen per year for development into new products, services and processes			
Percentage of projects successfully implemented/ time taken			

[This list was compiled from a variety of sources in the innovation literature and ideas derived from discussions with managers during the Cranfield School of Management research project.]

- *Portfolio management* : Once ideas have been generated, an efficient process for choosing the best ones for implementation is required. Resources are always limited, and so they should be focused on the priorities. Leading companies ensure that their innovation portfolio contains a good balance of new products, new processes, and business and service innovations.

- *Implementation* (*for example NPD*) : The capability to turn ideas into new products, new services and new processes quickly is fundamental. Fast time to market, high product quality, and lower development costs are all typical goals for companies. The most common way of achieving these targets is to use cross-functional teams, but problems often occur. Post-project reviews are an ideal mechanism for identifying ways to improve the implementation process, but too many companies are missing this opportunity for organisational learning.

- *Human resources management* : The need to create a culture in which employees are motivated to contribute to innovation underlies all innovation management efforts. (See the Fischer case study below.)

The innovation pentathlon can be a useful tool for identifying where your organisation's strengths and weaknesses lie.

For example, your company may be good at generating ideas, through workshops, suggestion schemes, brain-storming, or even a culture where employees are constantly striving to be creative. However, do you have a suitable mechanism for selecting the very best ideas and moving them quickly to implementation ?

As with all models, the innovation pentathlon has its limitations. The main one is that it simplifies an enormously complicated set of processes that take place within a organisation. Second, it identifies problem areas but not solutions.

Identifying ways of improving performance in each of the disciplines of the innovation pentathlon is the challenge that faces management. One part of this is the measurement issue.

Pitfall 3 : If you don't measure it ...

'If you don't measure it, you can't manage it.'

Although everyone knows this management mantra, the majority of managers in services and manufacturing are dissatisfied with their current measures of innovation performance. If any one area of innovation management appears to be more difficult for managers, it is the measurement issue.

In the USA, research by the University of Chicago has shown that many firms would like to improve their performance measurement.

It is therefore surprising that one of the best known measures of innovation performance, the percentage of revenue from new products, was utilised by less than 10% of the companies surveyed.

Research by Cranfield School of Management has found a similar pattern in Germany and the UK.

The managers interviewed spoke of their dissatisfaction with current measures. Typical comments included the following :

- 'I don't think we consciously measure [innovation]' (R&D manager, UK engineering company).

- 'I have to say we don't have a good measure ...' (managing director, UK engineering company).

- '[It's too hard to measure] because it is intangible' (managing director, German engineering company).

As measurement is clearly such a problem, a catalogue of potential measures of innova-tion performance has been developed (see *Table* 2 on the previous double-page spread).

This shows company, department, project and human resources level measures, and it can form the basis for management discussions about the most suitable performance measures.

Choose the most appropriate ones for your business, and use them to give more focus to the organisation's improvement initiative. This is where the finance function can play a key role.

Case study : Fischer employee motivation

Many companies want to become more innovative, but do not communicate this message to their employees.

Fischer, a manufacturer of industrial fixing devices based in southern Germany, takes a different approach. The company has a long tradition of innovation (it has filed thousands of patents), and so there has always been a strong focus on the R&D function generating ideas for new products.

MD Klaus Fischer has now attempted to extend the generation of new ideas across all the functions, because, he says, 'when we're not innovative across the whole company, then we haven't a chance'.

Employees' contributions to innovation are assessed in annual appraisals in various ways. R&D engineers, for instance, are measured by number of patents and the speed and effectiveness with which these are converted into products. All employees are assessed on contributions to process innovation (improvements and cost reductions in manufacturing and business processes).

In every appraisal, a rating on a 1–5 scale is used to summarise an employee's overall contribution to innovation. Although the rating is subjective, it stimulates discussion between employees and management about innovation. The company has found that the process has been a very effective catalyst in increasing overall performance.

Klaus Fischer perceives his innovation promotion role to be central. He therefore takes personal responsibility for driving the company's suggestions scheme, and maintaining an effective bonus scheme linked to this.

Role of the finance director

Finance managers can make a significant contribution by checking that the measures that drive the business focus sufficiently on innovation.

The main steps that the finance function can take are as follows :

- Ensure that the need for innovation in all areas (products, processes, services, business processes) is understood across the company, and that all functional areas are contributing to their full capability. Leading companies have surveyed their employees' views on innovation performance using an innovation audit approach (see Voss, Chiesa and Couglan (1993)) to determine what improvements need to be made.
- Determine the most appropriate measures of innovation performance levels, and identify actions to enhance performance.
- Ensure that data on past performance is collected so that innovation goals can be determined realistically.
- Collect data on the innovation performance levels of the business's competitors. This can be a useful tool for motivating the organisation to make significant improvements within short timescales.
- Constantly monitor the returns on investments made in innovation. For example, track cost savings resulting from improvements to business processes such as order fulfilment. (See *Table* 2 for example measures of project quality and returns.)
- Avoid simplistic approaches, such as trying to apply one best practice, or focusing on only one factor, such as time to market. Concentrate on integrating the five elements of innovation management.
- Ensure that the finance function is proactive in the innovation debate.

Creating a more innovative organisation takes time, and the finance function should use its influence to accelerate this change.

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- ***Product Leadership* : *Creating and Launching Superior New Products***
  Cooper, R G (1998) Perseus
  The key book on new product development and stage–gate processes.

- ***Creative Problem Solving and Opportunity Finding***
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  Excellent book on creativity; includes a section on over 20 *creativity techniques that are easy to apply in business situations.*

- ***Managing Product Innovation for Competitive Advantage***
  Goffin, K, Lee-Mortimer, A and New, C (1999) Haymarket
  A study of leading edge new product development practices in companies that have won the Management Today/*Cranfield School of Management Best Factory Awards in the UK and Germany.*

- ***Managing Innovation* : *Integrating Technological, Market and Organizational Change***
  Tidd, J, Bessant, J and Pavitt, K (1997) John Wiley
  Very good coverage of all aspects of innovation management, but not always written in a pragmatic style.

Author

Professor Goffin is currently writing a book on managing innovation. He would be pleased to hear readers' views on how financial reporting can be used to stimulate improvements in innovation performance. (*Contact* : Keith Goffin, Cranfield School of Management. Email : k.goffin@Cranfield.ac.uk.)

NEW ...

MQOnline

In response to the very positive feedback we have received from the membership about *Management Quarterly*, the Faculty has launched a new initiative : *MQOnline*.

MQOnline is a web-based series of streamed multimedia lectures that cover and expand upon the subjects addressed in the *Management Quarterly* journal. These 20–30 minute lectures can be accessed via the Faculty website at www.icaew.co.uk/members.

MQOnline has been live since the autumn of 2000. It was launched with a set of finance lectures covering aspects of the cost of capital and shareholder value. Lectures on venture capital and financial options are now also available. A series of lectures covering the complete marketing syllabus is included in *MQOnline*. Lectures that complete the finance series are in preparation and should be available shortly.

Please try *MQOnline* and tell us what you think. Comments should be addressed to Chris Jackson at chris.jackson@icaew.co.uk.

The Faculty of Finance and Management
The Institute of Chartered Accountants in England & Wales
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CONTENTS OF PAST ISSUES

Part 1 : October 1998

Strategy	'What is strategy'	Philip Davies
HRM	'Introduction to people management'	Veronica Hope Hailey
Marketing	'Marketing in today's world'	Helen Mitchell
Finance	'Financial planning and reporting'	Ruth Bender

Part 2 : January 1999

Strategy	'Corporate strategy'	Philip Davies
HRM	'The role of the HR function'	Veronica Hope Hailey
Marketing	'Strategic marketing planning'	Malcolm McDonald
Finance	'Operating and business systems'	Judith Shackleton
Knowledge management	'Knowledge management'	Ron Young

Part 3 : April 1999

Strategy	'Strategic alliances'	Philip Davies
HRM	'Strategic HRM and managing change'	Katie Truss
Marketing	'Understanding the customer'	Helen Mitchell
Finance	'DCF and interest rates'	Keith Parker

Part 4 : July 1999

Strategy	'Competitive strategy : magic bullet or quack cure ?'	Steven Sonsino
Marketing	'Understanding customers : the organisation'	Roger Palmer
Finance	'The cost of equity'	Gülnur Muradoglu
Project management	'Project management : context and process'	Ralph Levene

Part 5 : October 1999

Strategy	'Tools for understanding strategic environments'	Julie Verity
HRM	'Performance management'	Philip Stiles
Marketing	'Relationship marketing'	Helen Mitchell
Finance	'The cost of capital'	Jack Broyles

Part 6 : January 2000

Strategy	'Innovate or die : assessing internal strategic resources'	Steven Sonsino
HRM	'Developing people in organisations'	Lyn Stansfield
Marketing	'Market research and information technology'	Lynette Ryals
Finance	'Shareholder value'	Clare Minchington Graham Francis
Organisational behaviour	'Influencing others'	Donna Ladkin

Part 7 : April 2000

Strategy	'Assessing internal capabilities'	Philip Davies
HRM	'Personal development and people management competencies'	Steve Macaulay
Marketing	'Market segmentation and positioning'	Susan Baker
Finance	'Valuation of companies'	Ruth Bender
Risk management	'Dealing with project risk'	Elaine Harris

CONTENTS OF PAST ISSUES – *Continued*

Part 8 : July 2000

Strategy	'Strategic choice'	Tony Grundy
HRM	'Dealing with conflict'	Karen Lee
Marketing	'The marketing toolkit'	Roger Palmer
Finance	'Financial instruments'	Lance Moir
Personal development	'Thinking outside the box'	Donna Ladkin

Part 9 : October 2000

Strategy	'Thinking about thinking'	Steven Sonsino
HRM	'Trade unions and collective representation'	Michael Allen
Marketing	'Managing the marketing mix 1'	Susan Baker
Finance	'The management of foreign exchange risk'	Lance Moir
Working practices	'Understanding remote working'	Jill Shepherd

Part 10 : January 2001

Strategy	'Strategic change'	Julia Balogun
HRM	'The European Union and social policy'	Ariane Hegewisch
Marketing	'Managing the marketing mix 2'	Susan Baker
Finance	'Strategic issues in acquisitions'	Ruth Bender
Working practices	'International teams'	Karen Lee Jean-Marc Le Tissier

Part 11 : April 2001

Strategy	'Thinking about globalisation'	Susan Segal-Horn
HRM	'International human resources management'	Hilary Harris
Marketing	'Key account management'	Roger Palmer
Finance	'Option contracts'	Alpa Dhanani
Management skills	'Leadership : what's the big deal ?'	Donna Ladkin

Part 12 : July 2001

Strategy	'The future of strategy : seize the day'	Steven Sonsino
HRM	'Ethics and governance'	Philip Stiles
Marketing	'Successful brand building'	Susan Baker
Finance	'Structuring a venture capital deal'	Ruth Bender
Knowledge management	'Avoiding knowledge (mis)management'	Ashley Braganza

Part 13 : October 2001

Strategy	'Service operations strategy'	Graham Clark
HRM	'Empowerment by subterfuge'	Donna Ladkin
Finance	'Behavioural finance and the finance director'	Richard J Taffler
Management	'Enhancing innovation performance'	Keith Goffin

ADDITIONAL ISSUES

Management Quarterly was originally conceived as a three year series that would cover the basics of core management disciplines over 12 issues. Feedback has shown that the publication has been well received and further issues wIll be welcomed. The Faculty is therefore publishing an additional five quarterly issues. These will cover management subjects in a wider variety of disciplines than those addressed by the main syllabus, which has now been completed.

Copies of journal articles cited in *Management Quarterly* can generally be obtained through the Institute library. A charge is made for these articles that is based on the number of pages to be copied.

IN THE NEXT ISSUE ...

Human Resources Management ***Current issues in management development***

Management development is seen as a key issue for companies. This overview outlines the latest practices in management development, education and training.

Finance ***Strategic management accounting***

Businesses need to identify where their competitive advantage lies. They must also implement key performance indicators that relate directly to the critical success factors of the business.

Management ***Collaborative planning in the supply chain***

Supply chain management is a growing concern for businesses. This article describes various methods of collaboration between suppliers and customers along the chain. It then goes on to explain how these can improve profitability for all when used effectively.

Risk Management ***Risk management***

This contribution examines various aspects of risk management from a corporate perspective, using case studies to illustrate the concepts.

MANAGEMENT QUARTERLY

Management Quarterly aims to deliver the basic building blocks in management disciplines. It is produced in association with Cranfield School of Management. The first 12 issues contained articles on strategy, human resources, marketing and finance, together with additional topics such as project management and knowledge management. Over a three year period, this built up to a comprehensive overview of practical business knowledge and modern management ideas. Five additional issues are now being published that will cover management topics in a wider range of disciplines.

Management Quarterly provides a comprehensive grounding in the knowledge needed to operate a successful business. It enables the reader to understand current issues and debates in these areas, and distinguish core ideas from current fads. A wide ranging programme of CPE is provided that is suitable for members both in business and advising businesses.

Each part of *Management Quarterly* is self-standing and includes recommended further reading. Writers are selected from Cranfield School of Management and other leading business schools. Experts in each field explain and discuss the relevance, practicality and usefulness of key new concepts and ideas, thus enabling the senior executive to keep really up to date. A message board is available on the faculty Internet site. Chartered accountants often have limited reading time. *Management Quarterly* is succinct and the writers direct the reader to other, and often fuller, expositions on the subject. The programme is no substitute for an MBA but it has followed some of the major threads on an MBA.

Management Quarterly acts as an aide-memoire for members, provides new ideas, and encourages 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 are a very important part of the successful development of the series. Comments please, to Chris Jackson on 020 7920 8486 (or by e-mail to chris.jackson@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. The executive editor is Chris Jackson.

Feedback

Comments and suggestions should be addressed to Chris Jackson BA FCA, Head of Faculty, telephone 020 7920 8486, e-mail chris.jackson@icaew.co.uk, or write to the Faculty at the address below.

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Faculty members

Each member of the Faculty in the year of publication will receive one copy of every *Management Quarterly* published by the Faculty free of charge. Copies are not available to non-Faculty members.

Parts of *Management Quarterly* published to date are :

Part 1 :	October 1998	Part 10:	January 2001
Part 2 :	January 1999	Part 11:	April 2001
Part 3 :	April 1999	Part 12:	July 2001
Part 4 :	July 1999	Part 13:	October 2001
Part 5 :	October 1999		
Part 6 :	January 2000		
Part 7 :	April 2000		
Part 8 :	July 2000		
Part 9:	October 2000		

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

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