FINANCE & MANAGEMENT FACULTY

MANAGER UPDATE

February 2007 Issue 40

A quarterly summary of topical management ideas

CORPORATE REPUTATION

PERFECTING YOUR IMAGE AND IDENTITY

ACCOUNTING & FINANCE

PARAMETRIC COST ANALYSIS

RISK MANAGEMENT

SECURITY ISSUES

HUMAN CAPITAL

A NEW APPROACH TO REWARD STRATEGY

ISSN 1467-5765

MANAGER UPDATE

Published by:

The Finance & Management Faculty
Chartered Accountants' Hall,
PO Box 433, Moorgate Place,
London EC2P 2BJ
Tel: 020 7920 8486
Fax: 020 7920 8784
www.icaew.com/fmfac
fmfac@icaew.com

Comments about the Faculty should be addressed to Chris Jackson (chris.jackson@icaew.com)

This publication is produced in parallel with the Braybrooke Press publication of the same name and published quarterly. It is compiled and edited by Roger Mills, professor of accounting and finance at Henley Management College.

Manager Update helps the general manager keep abreast of the latest articles in specialist management journals in a number of key fields, such as strategy and organisation, marketing, accounting and finance, and human resources management, plus other contemporary issues (see Foreword, right).

Comments and suggestions should be addressed to Emma Riddell, telephone: 020 7920 8749, email: emma.riddell@icaew.com, or write to her at the Faculty address above.

The articles contained in this and previous issues of this publication are available (to Faculty members only) on the Faculty website at www.icaew.com/managerupdate.

This publication is produced by Silverdart Ltd on behalf of the Finance & Management Faculty – for further details, see the back page.

FOREWORD

PRACTICAL CONTENT

***Emma Riddell**, technical manager, Finance & Management Faculty, ICAEW*

Welcome to the new-look *Manager Update*, which presents its usual high quality content in a clearer, more contemporary and more engaging style. In keeping with our design changes, we are offering a wider range of management topics than previously, while still focusing on four significant subjects. Expert writers from Henley Management College provide readers with detailed analysis of the issues, which are intended to inform and improve the practical decisions that managers take.

Appropriately, our first article looks at how identity, image and reputation are constructed and how they interrelate. As a research fellow at Henley's John Madejski Centre for Reputation, Nuno da Camara raises important questions about perception. In the second article, the editor of this publication, Roger Mills, writes about risk management from the point of view of security, increasingly regarded as an area which can add considerable value to a business. In the third article, written in conjunction with his Henley colleague Giampiero Favato, Mills also examines the theory and practice of parametric cost analysis. The authors look, for example, at how, in America's space programme, the mysteries of outer space are placed within the context of cost estimating, and directly compare this with pharmaceutical research and development (R&D). Finally, Malcolm Higgs writes about the difficulties encountered in managing 'human capital,' and how the answer may be an extended total reward framework.

These are timely articles. We hope that our redesign enhances the overall publication, in which academic discussions of business issues are not just posed theoretically but have wider, practical implications for managers.

EMMA RIDDELL

CONTENTS and EXECUTIVE SUMMARY

NUNO DA CAMARA

PERFECTING YOUR IMAGE, IDENTITY AND REPUTATION

An article in *The Journal of the Academy of Marketing Science*[1] suggests a new framework for definitions of corporate identity, image and reputation and argues for consistency in future interdisciplinary research. The marketing-based approach, though, differs to recent corporate reputation research and only serves to highlight the ongoing risk of confusion for practitioners. **Nuno da Camara**, research fellow at The John Madejski Centre for Reputation, Henley Management College, reviews the different standpoints.

Marketing and corporate reputation approaches

While researchers from several disciplines have extensively probed organisational identity, image, and reputation, there remains no clear consensus on how these terms are defined or interrelate. A framework suggested by Brown et al[2] proposes a new set of definitions based around four central viewpoints of the organisation. Identity revolves around the question, 'who are we as an organisation?' whilst reputation is concerned with what external stakeholders think of the organisation. Image is then divided into what the organisation wants others to believe about itself, the intended image, and what the organisation believes others think of the organisation – known as the construed image. Whilst the definition of identity is similar to that stated in corporate reputation research, image is understood in a different way as an internal and marketing-related concept.

The field of corporate reputation draws on various disciplines including marketing, behaviour, strategy and psychology

Nuno da Camara, research fellow, The John Madejski Centre for Reputation, Henley Management College.

The main focus of this marketing-based approach is to understand how consumers make decisions about companies and their products and services. Image is not related to external perceptions but is understood as something which is managed by the organisation and projected externally. Reputation is also viewed as relating only to perceptions amongst external stakeholders and does not account for the perceptions of internal stakeholders (ie employees and managers), which are included in the term corporate identity.

Unlike the marketing-based approach, the field of corporate reputation draws on various disciplines including marketing, organisational behaviour, strategy and psychology. Consequently, it embraces a more holistic view of identity, image and reputation. Fombrun and van Riel,[3] founders of the Reputation Institute, are amongst the most influential proponents of this view and have tried to subsume image and identity within reputation. For them, identity is the internal perception of the organisation and image is the perception held by external observers. Reputation is made up of the overall amalgamation of corporate identity and image, ie the sum total of internal and external perceptions.

Fombrun's[4] definition of corporate identity as 'the set of values and principles employees and managers associate with the company' is very similar to Brown et al.[5] However, in contrast to the marketing literature he does not emphasise the actions of managers and employees in projecting an identity and/or image to external constituents. The perceptions of internal stakeholders are included in identity and therefore contribute to overall reputation. Image is developed amongst external stakeholders and reputation is an aggregation of internal and external perceptions that results in an evaluative judgement by stakeholders.

Although the holistic corporate reputation perspective has gained substantial ground over the past decade, it remains far from universal. We should, therefore, review recent interpretations of each term to shed further light on the underlying differences in interpretation.

Tactical and strategic definitions – a review

Definitions of identity, image and reputation fall into two main camps – the operative or tactical approach, which is grounded in marketing, and the strategic view, which implies a more holistic interpretation.

Corporate identity
Albert and Whetten's classic definition of organisational identity is that which is 'central, distinctive and enduring' about the entity.[6] This approach presents corporate identity at the level of both appearance and behaviour, combining both visual representations and symbols of the organisation with the behaviour and actions of its members.[7] Similarly, Melewar[8] defines corporate identity holistically as the sum total of structure, strategy, behaviour, culture, design and corporate communication – which are all founded in corporate personality and values. This is viewed as the underlying 'core' or basic character of the firm – and not simply the corporate identity fashioned by managers.[9]

That said, there has been hardly any empirical testing in the domain of the corporate identity construct and managers tend to focus on highly tangible aspects of corporate identity, such as corporate communication and corporate design. While discussion is likely to continue in the academic literature, most definitions currently agree that corporate identity represents the internal culture, values and behaviour of an organisation,[10] as well as its visual appearance.[11]

Corporate identity can therefore be interpreted on two distinct levels – the tactical implementation of a visual identity in organisational symbols (logos, trademarks, advertising, marketing materials, website etc) and the strategic view of organisational behaviour and culture that affects performance. Managing corporate identity at the strategic level requires a holistic understanding of how behaviour and culture is developed by internal stakeholders over time and creates an environment in which organisational strategy is implemented and performance emerges.

Corporate image
Researchers broadly agree on defining image as 'the feelings and beliefs about the company that exist in the minds of its audiences.'[12] Thus, image represents the 'totality of stakeholders' perceptions of the way an organisation presents itself, either deliberately or accidentally'.[13] Another way of interpreting image is 'what comes to mind when one hears the name or sees the logo'.[14] As Blaich (cited in Markkanen) states, 'literally the term should be 'corporate images' for there are as many as there are individuals having relationships with, or knowledge of, the company'.[15]

Thus, corporate image resides in the heads of the stakeholders, whereas corporate identity resides in the organisation.[16] A common distinction now being made is that corporate identity is what a firm is, while image is what a firm is perceived to be.[17,18]

Corporate image, then, cannot be controlled by the organisation as it is affected by external factors in people's perceptions (eg media, competitor strategies, individual preferences). It can, though, be shaped by the organisation through its marketing and communications. Thus on an operative level it can be viewed as a set of visual cues managed by the organisation and deliberately projected to outsiders. At a strategic level it represents a complex sense-making picture in the mind of stakeholders. In holistic terms, image represents the crucial link between corporate identity and reputation, since it is how stakeholders process and combine perceptions of corporate behaviour and identity into a picture of the organisation. This, then, feeds into a reputational judgement over time.

Reputation is founded in perceptions and experiences

Corporate reputation
In the recent corporate reputation literature, reputation is presented as an evaluative concept based on past performance and is described as a 'subjective, collective assessment of an organisation's trustworthiness and reliability' amongst both internal and external stakeholders.[19] Most definitions focus on reputation as an 'assessment' of organisational behaviour and practice, or, to a lesser degree, on reputation as a state of 'awareness' in which stakeholders hold perceptions of an organisation but do not make judgements about it.[20]

So, reputation is best understood as being founded in perceptions and experiences of an organisation and denoting a judgement on the part of all stakeholders over time. It is a strategic and holistic concept by nature, and represents a clear break from the tactical or operative focus of marketing-led research. Nevertheless, it can still be interpreted in a limited way as simply an accumulation of perceptions that lead to a greater awareness of an organisation, but is more generally seen as a holistic concept that encapsulates people's judgement of an organisation's actions and performance.

In essence, the tactical and strategic views of identity, image and reputation differentiate between actions that are manageable and controlled by the organisation and more complex phenomena, such as perceptions and behaviour which develop over time and are affected by many factors beyond the control of the organisation.

Implications for managers
Whilst an operative and partial focus on single functions – such as marketing and corporate communications – is still the norm in many organisations, there is now a much higher awareness of the need to consider reputation within a variety of organisational functions and integrate data from all stakeholder groups in a holistic reputation management strategy. Recognising how the concepts of identity, image and reputation operate and interact in organisational environments is crucial for sustainable long-term growth, and leads us to identify three key implications for managers.

1 *Corporate identity is the bedrock of image and reputation*

Ravasi and van Rekom[21] comment that many researchers[22] have studied the effects of identity on the actions and decisions that influence how an organisation is perceived externally. For them,[23] 'shared values and principles shape the set of visual attributes that form a corporate identity, the policies that promote a corporate brand, and the routines and practices that induce the formation of corporate images and reputations.' Since organisational values, behaviour and culture drive the relationship and communication with stakeholders, it is important for organisations to understand their identity in order to properly manage their image and reputation. Take, for example, an entrepreneurial company that wants to recruit similarly like-minded people – if its image is divorced from its operating culture, leading to the attraction of introverted types, corporate strategy and long-term growth may be compromised.[24] In other words, organisations should avoid disparities between what is practiced and what is preached – otherwise, relationships with stakeholders will be damaged.

2 *Image and reputation, though linked, are not the same concept, and need to be managed differently*

Image can be created relatively quickly through communication or change programmes. Reputation, though, is a more painstaking process that has to be developed over time through consistent images and experiences.[25] Clearly, reputation is more durable than image and can act as a positive store of goodwill and support or, alternatively, as a negative bank of distrust and avoidance.[26] An organisation can have a good reputation yet possess an old-fashioned or otherwise inappropriate image[27] and examples abound. In the UK car industry, for example, General Motors' Vauxhall brand lost out to competitor brands that developed more exciting product design and advertising campaigns, even while receiving excellent reviews for reputation and reliability.

Conversely, an organisation can have a strong image – developed through its visual identity and marketing programme – that differs from its reputation.[28] Image and reputation, then, serve different purposes. Indeed, a positive image can have a significant impact on behaviour in ad hoc situations where individuals are not predisposed to process information extensively – such as the decision to respond to a charity's one-off request for a donation.[29] Yet, where information is more complex and ambiguous, people tend to rely on their perceptions of an organisation's reputation to determine behaviour (ie the decision to sign up for regular long term donations to a charity or in choosing to work for an organisation).[30]

Current definitions of identity, image and reputation vary as to the role of internal and external stakeholders in each concept

3 *Both internal and external stakeholders are instrumental in identity, image and reputation*

Current definitions of identity, image and reputation vary as to the role of internal and external stakeholders in each concept. Image, in particular, has been defined as something that is solely internal and management-led or, alternatively, as residing exclusively in the minds of external stakeholders. Identity, by contrast, is mostly attributed to internal stakeholders, while reputation is often said to exist only amongst external stakeholders. A strategic and holistic focus on the management of reputation in the wider sense actually means that none of these definitions adequately encompass the formation and development of identity, image and reputation in practice.

Identity represents the behaviour and culture of an organisation amongst internal stakeholders. It is, though, influenced by the interaction with and feedback from external stakeholders.

Reputation also results from the interaction between internal and external stakeholders, especially, for example, between front-line employees and service industry customers. Similarly, whichever way image is defined, it is arguable that in reality there must be an act of image projection by internal stakeholders that is then received and interpreted by external stakeholders. Internal stakeholders such as employees and managers also develop perceptual images of the organisation which they may or may not be involved in projecting, and which also result in reputation.

Conclusion

In highlighting the differences in marketing-based and reputation-led approaches in the research around terminological definitions, this article encourages managers to reflect on the implications of taking tactical or strategic approaches to identity, image, and reputation management. Clearly, in many situations, an operative or tactical approach fulfils organisational objectives. The weight of recent research does, though, indicate that the proper recognition of the strategic and holistic nature of identity, image and reputation is necessary for effective stakeholder management and the creation of sustainable long-term growth in the modern organisation. **MU**

REFERENCES

1 'Identity, intended image, construed image, and reputation: an interdisciplinary framework and suggested terminology', Brown, T, Dacin, P, Pratt, M and Whetten, D, *The Journal of the Academy of Marketing Science*, vol 34, no 2, pp 99-106, 2006.

2 Brown et al, op cit.

3 'The reputational landscape', Fombrun, C and van Riel, C, *Corporate Reputation Review,* vol 1, no 1/2, pp 5-13, 1997.

4 'Reputation,' Fombrun, C J, Boston, MA: Harvard Business School Press, 1996.

5 Brown et al, op cit.

6 'Organizational identity', Albert, S and Whetten, D, *Research in Organizational Behavior*, vol 7, pp 263-295, 1985.

7 'Modelling corporate identity: a concept explication and theoretical explanation', Alessandri, S, *Corporate Communications: An International Journal*, 2001, vol 6, issue 4, pp 173-182, 2001.

8 'Determinants of the corporate identity construct: a review of the literature', Melewar, T C, *Journal of Marketing Communications*, vol 9, pp 195-220, 2003.

9 'Defining the corporate identity construct', Melewar, T C and Jenkins, E, *Corporate Reputation Review*, vol 5, issue 1, pp 76-91, 2002.

10 Melewar, T C and Jenkins, E, op cit.

11 Melewar, T C, op cit.

12 'Company image and reality: a critique of corporate communications', Bernstein, D, London: Cassell, 1992.

13 Melewar, T C, op cit.

14 'Image and reputational characteristics of UK charitable organizations: an empirical study', Bennett, R and Gabriel, H, *Corporate Reputation Review*, vol 6, no 3, pp 276-289, 2003.

15 'Corporate identity: a process of strategic inter pretation in an MNC,' Markkannen, T, PhD paper, *Helsinki School of Economics and Business Administration*, 1998.

16 'Managing your corporate images', Dowling, G R, *Industrial Marketing Management,* vol 15, no 22, pp 109-115, 1986.

17 'A new approach to the corporate image management process', Abratt, R, *Journal of Marketing Management*, Summer, vol 5, no 1, pp 63-76, 1989.

18 Alessandri, S, op cit.

19 Fombrun and van Riel, op cit.

20 'Corporate reputation: the definitional land scape', Barnett, ML, Jermier, JM, Lafferty, BA, *Corporate Reputation Review*, vol 9, no 1, pp 26-38, 2006.

21 'Key issues in organizational identity and identification theory', Ravasi, D and van Rekom, J, *Corporate Reputation Review*, vol 6, no 2, pp 118-132, 2003.

22 'The expressive organisation – linking identity, reputation, and the corporate brand,' Schultz, M, Hatch, M J and Holten Larsen, M H (eds), Oxford: Oxford University Press, 2000.

23 'Are the strategic stars aligned for your corporate brand?', Hatch, M J and Schultz, M, *Harvard Business Review*, February, vol 79, no 2, pp 128-134, 2001.

24 'A corporate character scale to assess employee and customer views of organization reputation', Davies, G, Chun, R, Da Silva, R V and Roper, S, *Corporate Reputation Review*, Summer, vol 7, no 2, pp 125-146, 2004.

25 Melewar, T C, op cit.

26 Melewar, T C, op cit.

27 Bennett, R and Gabriel, H, op cit.

28 Bennett, R and Gabriel, H, op cit.

29 Bennett, R and Gabriel, H, op cit.

30 Bennett, R and Gabriel, H, op cit.

ROGER MILLS

TOWARDS A FRAMEWORK FOR SECURITY ISSUES

With security risks becoming increasingly significant in today's corporate world, companies face the challenge of managing them. **Roger Mills**, professor of finance and accounting at Henley Management College, examines how to ensure business and security are successfully converged. What are the 'imperatives' that are forcing its emergence and how can enterprise risk management (ERM) frameworks be implemented?

Meeting the challenges to corporate security

Corporate security is gaining increasing importance on the board agenda. Security risks are becoming more complex and many of the threats, such as terrorism, organised crime and information security, are asymmetric, networked and thus more difficult to manage. A recent study by Briggs et al[1] has indicated that there is also greater appreciation of the interdependence between a company's risk portfolio and the way it does business: certain types of behaviour can enhance or undermine an organisation's 'licence to operate', and in some cases this can generate risks that would not otherwise exist. Thus, the authors argue, security has a higher profile in the corporate world today than it did five years ago. Companies are looking for new ways to manage these risks and the portfolio of the security department has widened to include shared responsibility for things such as reputation, corporate governance and regulation, corporate social responsibility and information assurance.

Briggs et al[2] studied multinational companies over a 12-month period to understand how they have tried to align security with the business so that both go hand in hand. They found several that appear to be doing this successfully and which exhibit six important characteristics:

Security has a higher profile today than five years ago

Roger Mills, professor of finance and accounting at Henley Management College.

1) they understand that security is achieved through the everyday actions of employees across the company. It is therefore not something exclusive to the corporate security department and success depends on the ability to convince others to work in a different way. This places emphasis on communication and requires security departments to value the views of non-security professionals as well as the experts;
2) they recognise the limitations of command and control approaches to change management. Behaviour is altered only by convincing, persuading, influencing and explaining why a new way of working is in each person's interest. This requires departments to work through trusted social networks, placing greater emphasis on people, management and social skills than security experience. The power of the corporate security function is now directly proportionate to the quality of its relationships, not the depth of its content knowledge;
3) they understand that their role is to help the company to take risks rather than eliminate them, and to have contingencies in place to minimise damage when things go wrong. Risk-taking is essential to successful business – corporate security departments must not behave as security purists whose work detracts from, rather than contributes towards, the company's goals;
4) they embrace and contribute towards their company's key business concerns, and as a result are significantly expanding the security portfolio. Corporate security departments now have responsibilities in areas such as corporate governance, information assurance, business continuity, reputation management and crisis management. Indeed, this is causing many to question the relevance of the term 'security' to describe their function. The term 'resilience' more accurately reflects the range of their responsibilities;
5) they draw a clear distinction between the strategic and operational aspects of security management, with the creation of group corporate security departments to lead on strategy, leaving operational work to be carried out by business units. They all have a clear philosophy to guide their approach to security, which provides direction for non-security professionals, makes it easier to communicate across the company, sell itself to the board, and be credible alongside other functions; and

6) finally, and most important symbolically, the corporate security departments that are leading the way have abandoned old assumptions about where their power and legitimacy come from. Their position does not rest on that which makes them different – their content knowledge – but on business acumen, people skills, management ability and communication expertise. In other words, they have to compete on the same terms as every other function in the company. This is leading many organisations to place greater emphasis on these skills than on a security background and some have people working on security without prior related experience.

Interestingly, the research of Briggs et al[3] indicated that corporate security departments must adopt the following as a philosophy for security to be successful and they should:

- 'let go' – they cannot deliver security to the rest of the organisation and must be committed to the idea of commitment-based security; they understand that their authority and legitimacy come from openness and transparency rather than secrecy, and work hard to dispel the 'security myth';
- not practice the 'dark art of security' – they should not overreact to 'security moments' or use them cynically as opportunities to fight for more resources or authority, nor seek to play others' lack of knowledge to their own advantage;
- be driven by business priorities – from new organising principles, such as corporate governance, to new business practices, such as offshoring;
- not look for 'Rolls-Royce' solutions – absolute security is not possible anywhere, and is certainly not desirable in a corporate setting where economic imperatives are key;
- place a premium on good relationships both within the company and between the company and its stakeholders – fortress security can lose a company friends as well as harm the bottom line; and
- understand the importance of communication – they must work hard to sell their services, gain visibility across the company, influence key decision-makers and challenge misperceptions, where necessary.

Security risk and convergence

A report by ASIS International has reinforced the importance of security and identified security 'convergence' as a trend affecting global enterprises. It defines convergence as:

> '… the identification of security risks and interdependencies between business functions and processes within the enterprise and the development of managed business process solutions to address those risks and interdependencies.'

Indeed, this definition captures a shift in emphasis from security as a functional activity within an enterprise, to having a 'value added' effect on the overall mission of business. To gain a better understanding of the impact of convergence on global enterprises, the alliance of leading international security organisations including ASIS International, Information Systems Security Association (ISSA) and Information Systems Audit and Control Association (ISACA) retained Booz Allen Hamilton (Booz Allen) to examine this convergence trend within enterprises throughout the United States.[4] Booz Allen solicited responses to web-based surveys on convergence from chief security officers (CSO), chief information security officers (CISO) and other security professionals.

Those security professionals interviewed and surveyed represent US-based global companies with revenues ranging from $1 billion to more than $100 billion.

Corporate security departments should 'let go', communicate, and not overreact or look for 'Rolls Royce' solutions

The findings from the surveys and interviews identified several internal and external drivers, or 'imperatives', that are forcing convergence to emerge. These are:

- rapid expansion of the enterprise 'eco-system';
- value migration from physical to information-based and intangible assets;
- new protective technologies blurring functional boundaries;
- new compliance and regulatory regimes; and
- continuing pressure to reduce costs.

Rapid expansion of the enterprise 'eco-system'

The enterprise eco-system is rapidly expanding as businesses (through new technology and practices) create more complex organisational structures. For example, as many companies turn to third parties to reduce cost by outsourcing, they are adding another organisational layer. About 73% of North American companies outsource some IT functions, creating global external business partners.

Enterprises must now consider the integrated security implications of outsourcing specific functions to other companies and managing alliances to create competitive advantage.

Value migration from physical to information-based and intangible assets

Companies' assets are now increasingly information-based and intangible. Today, for example, even most physical assets rely heavily on information – manufacturers depend on receiving specific information from suppliers before starting to make physical products. Technology is also allowing companies to offer more information products. News service and research companies, for example, provide nothing but information to their customers. They must ensure security of information not only to their customers but also from their suppliers. As these assets become increasingly intangible, there is a greater need to integrate physical and information security, as well as security throughout the entire enterprise.

New protective technologies blurring functional boundaries

New security needs are also blurring functional boundaries within the organisation. For example, physical access control technology is now merging with network access technology, requiring physical and information security groups to integrate their strategies. The smart card is one example of a technology that is integrating different security elements by, for example, verifying a person's identity and tracking their physical location.

New threats are emerging and risks are becoming increasingly complex

New compliance and regulatory regimes

As new threats emerge – and business transactions become more intricate – it's clear that adhering to regulations and compliance guidelines will become more complex. For example, the Sarbanes-Oxley (SOX) legislation gives a framework under which risk must be assessed, but in fact falls short of mandating how to assess that risk. Managers, therefore, must be forward-sensing when assessing an enterprise's security needs.

Continuing pressure to reduce cost

Companies will always grapple with balancing risk/reward tradeoffs. As risks become increasingly complex, enterprises must take a systematic, pragmatic approach to security that maximises resources while adequately managing risk. Efficiently allocating security resources requires a risk-based approach and greater transparency of security strategy. The focus needs to be clear to avoid a continual realignment based on the most 'recent' set of issues, in place of the most important. Such imperatives are forcing changes across the entire business while also changing the role of security within the organisation. At the business level, there is an increased perspective on enterprise risk, with the emergence of risk councils. In addition, security is progressively being viewed as a 'value add' – and even as a competitive advantage for numerous enterprises.

Security practitioner roles are also changing. For example, as formal risk discussions become more integrated, cross-functional and pervasive, the expectation that physical and information security practitioners will generate joint solutions instead of independent views increases dramatically.

The study identified a shift from the current situation in which security practitioners focus on their function as part of an enterprise-wide view of risk rather than an asset-based view, and one in which activities are integrated to improve the shareholder value of the business.

Enterprise risk management

Risk management – while an important aspect of running an organisation – is also sometimes overlooked. For example, in 'Risk from the CEO and board perspective' by McCarthy and Flynn, Hewlett-Packard board member Jay Keyworth stated:

"In my years at H-P and in talking to other board members from large Fortune 50 companies, I find that people thought that actually becoming familiar with the business itself and the details of the business, and particularly the half-dozen major areas of potential risk the company faces, was not really a board responsibility."[5]

Clearly, a comprehensive system of risk management is critical in today's business environment. The case for an enterprise risk management (ERM) system to measure and coordinate the management of all of a company's major risks in a manner consistent with the fundamental business objectives of the firm is therefore very strong. Ideally, an ERM would aim to consolidate and integrate both the process by which a firm manages its risks and the risks that are targeted in that process. A study by Deloitte, though, showed that ERM has many different interpretations,[6] probably because although it's been widely discussed for more than a decade it has only taken root in a few, primarily larger, organisations. Interest built slowly since the mid-1990s, when the Economist Intelligence Unit created an extensive ERM framework.

Professional associations – from internal audit groups to business risk managers to chief financial officers – have discussed ERM's potential for several years. However, until relatively recently, corporate interest was driven primarily by intellectual curiosity and internal audit experimentation. ERM's proponents argue it provides a solid foundation upon which companies can enhance corporate governance and deliver greater shareholder value. Sadly, though, there's little evidence these objectives have been achieved.

Until recently, there has not been a standardised framework for approaching ERM that organisations could use to establish benchmarks and best practices. To address this void – and as a consequence of regulatory and legislative pressures – the Committee of Sponsoring Organisations of the Treadway Commission (COSO) has developed an ERM framework, 'Enterprise risk management – integrated framework.'[7] COSO's framework defines ERM as follows:

'Enterprise risk management is a process, effected by an entity's board of directors, management, and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.'

Implementing the COSO framework

The COSO ERM framework can appear intimidating at first glance because the report is very comprehensive and consists of two volumes – one volume presents the framework, while the other offers helpful guidance for implementing it. Such a comprehensive framework, of course, requires a significant investment of time and resources to fully implement. Effective ERM also requires 'ownership' by executives, careful oversight by directors, and a cultural shift at most organisations. That makes the initial implementation of the framework the biggest challenge before the process can reach its potential.

Practical approaches to implementing the framework have started to emerge and are designed to help organisations become comfortable using an entity-wide portfolio approach to risk management and one of these has been proposed by Ballou and Heitger, which views the process in terms of a number of building blocks.[8] Their approach consists of:

1) *implementing the ERM framework on a limited basis across each of the COSO framework's eight interrelated components:*
   – internal environment;
   – objective setting (in four areas – strategy, operations, reporting and compliance);
   – event identification;
   – risk assessment;
   – risk response;
   – control activities;
   – information and communication; and
   – monitoring; and
2) *placing initial emphasis on entity-wide risks across all four risk categories identified by the COSO framework – strategic, operations, reporting and compliance.*
   The ERM framework, the authors argue, can be expanded, including through a potential 'cascading' throughout other levels of the organisation as senior management becomes comfortable with the culture the framework creates. Part of that cultural change requires people throughout the organisation take ownership of risk management.

> Security is no longer just functional but has a 'value added' effect

There are several claimed benefits associated with using a building block approach to implementing the COSO ERM framework. Several of these have much in common with the implementation of other initiatives, like activity-based costing. These include:

- size does not matter;
- culture shifts take time; and
- better allocation of resources.

However, the authors also recognise certain pitfalls in using a building block approach to ERM that can occur if an organisation is not careful to emphasise the cultural shift. Two of the more important challenges, they say, are:

- *simplification of the framework* – over time, the initial ERM framework becomes too simplified for both an effective understanding of risks and management decisions. Thus, organisations need to invest a sufficient amount of time and resources to implement an effective ERM framework culture and establish a foundation for managing risks throughout all levels of the organisation as the framework evolves; and
- *sceptical perceptions associated with implementing a framework* – when an organisation opts to roll out new initiatives slowly, sceptics often assume an ulterior motive. For example, even if the initial rollout of an organisation's ERM framework emphasises ownership of risk management only within certain pockets of the organisation, executives and directors should try to create a risk management culture across the entire organisation. This will help demonstrate their commitment to the ERM initiative to all employees and curb scepticism. Furthermore, if the organisation only introduces a skeletal risk management framework, stock market analysts might see it only as the organisation following trends to meet shareholder expectations. Thus, executives should ensure that a firm-wide risk management culture is developed, even though initial rollouts of the framework might not involve every aspect of the organisation.

Conclusion

Pressure for the implementation of the new COSO ERM framework was provided by a series of high-profile business scandals and failures where investors, company personnel, and other stakeholders suffered tremendous losses. In response, the US congress passed the Public Company Accounting Reform and Investor Protection Act of 2002 (better known as SOX). Section 404 of SOX mandated that companies use a suitable, recognised control framework for evaluating the effectiveness of internal controls. COSO's framework for internal control had existed for a decade without generating great enthusiasm, but SOX requirements in the past two years have increased dialogue about the framework.

The building block approach to ERM can cause simplification and scepticism

The original model, which looks like a colourful Rubik's Cube puzzle, was not a simple concept to grasp or implement and this might explain its slow uptake before SOX became law in 2002. Ironically, COSO's new ERM framework adds even more rows and columns and is inherently complex. Clearly, this complexity will create work for consultants to help organisations implement the model and realise the potential benefits because a comprehensive management approach – which covers the entire organisation's ERM strategy – will never be a quick fix. The COSO ERM framework, despite its limitations, is arguably a major step in the right direction, and may well become the standard for ERM frameworks. **MU**

REFERENCES

1 'The business of resilience – corporate security for the 21st century',
Briggs, R and Edwards, C, ISBN 1 84180 163 1, 2006,
www.demos.co.uk/publications/thebusinessofresilience.

2 Briggs et al, op cit.

3 Briggs et al, op cit.

4 'Convergence of enterprise security organizations',
Booz Allen Hamilton, 2005,
www.boozallen.com/publications/article/1439866?lpid=386277.

5 'Risk from the CEO and board perspective',
McCarthy, MP and Flynn, TP, New York, NY: McGraw-Hill, pp 152-153, 2004.

6 'Creating a value-adding approach to enterprise risk management',
Fortino, M, *Western Independent Bankers – Director's Conference*, San Diego, 2005,
http://64.233.161.104/search?q=cache:lTQy-VCbI6EJ:www.wib.org/past_seminars/dir_conf_past/dir_05/presentations/fortino_presentation.

7 'Enterprise risk management – integrated framework',
The Committee of Sponsoring Organizations (COSO) of the Treadway Commission,
Executive Summary, September 2004.

8 'A building-block approach for implementing COSO's enterprise risk management – integrated framework',
Ballou, B and Heitger, D, *Management Accounting Quarterly*, Winter, vol 6, no 2, 2005.

GIAMPIERO FAVATO
ROGER MILLS

PARAMETRIC COST ANALYSIS

Using parametric estimates assumes that a measurable relationship exists between system attributes and the cost of the system. How does this apply to large projects such as venturing into outer space, or, more terrestrially, pharmaceutical research and development (R&D)? Dr **Giampiero Favato**, a director of the Henley Centre for Value Improvement, and **Roger Mills**, professor of finance and accounting at Henley Management College, explore how parametric cost analysis (PCA) has been used in these fields.

The background – NASA

On January 14, 2004, US President George Bush announced a new directive for the country's space exploration program – a commitment to fund a journey to explore the solar system and to have astronauts return to the Moon by the end of the next decade. That would be followed, he said, by a future human mission to Mars. The National Aeronautics Space Administration (NASA) rapidly summarised the resources needed to carry out the program. Even for the world's largest economy the bill was steep, with the ten year budget ranging from $4 billion in 2006 to an astonishing $15 billion in 2016. In contrast, the 2006 clinical research budget of the National Cancer Institute was less than $5 billion, unchanged from the previous year.

A section of the May 2004 report from the General Accountability Office (GAO) called into question NASA's ability to accurately estimate and manage project costs.

As a result of the internal cost research effort, a novel approach to cost estimating was presented at the 2006 NASA Cost Analysis Symposium, entitled 'Cost estimators: key enablers to NASA's vision'.[1]

Cost estimators: the new idea powering NASA costing models

The origins of so-called parametric cost estimating date back to World War II when demand for military aircraft far exceeded anything the industry had ever manufactured before. In fact, while there had been some rudimentary work to develop parametric techniques for predicting cost, there was no widespread use of any cost estimating technique beyond a laborious build-up of labour hours and materials. One practitioner, T P Wright, writing in the *Journal of Aeronautical Science*, had suggested a type of statistical estimating as early as 1936 and provided equations which could be used to predict the cost of airplanes over long production runs. This theory came to be called the learning curve. Indeed, by the time the demand for airplanes had exploded in the early years of World War II, industrial engineers were using Wright's learning curve to predict the unit cost of airplanes.

PCA focuses on the cost estimators, not the miscellaneous details. The estimators are the controllable system design or planning characteristics and have a predominant effect on system cost. Parametric estimates use the few important parameters that have the most significant cost impact on the product(s), hardware or software, which are being estimated.[2]

Such cost estimators include mass, power, failure rate, mean time to manufacturing, energy consumed, manufacturing complexity and the number of parts to be assembled. Underlying the theory is the basic assumption that a measurable relationship exists between system attributes and the cost of the system. If a function exists, the attributes are cost estimators. In the design process, requirements are constraints, thus requirements are cost estimators. The development of valid cost estimating relationships (CERs) is central to the parametric estimating method. CERs are developed from the historical cost of analogous systems and the cost estimators (eg weight, maximum speed, load capacity) of these systems. The statistical technique normally applied to developing CERs from historical cost and parametric data is the ordinary least square (OLS) regression.

Parametric cost estimating has its origins in World War II

Dr ***Giampiero Favato***, *a director of the Henley Centre for Value Improvement (right), and* ***Roger Mills***, *professor of finance and accounting at Henley Management College.*

PCA is usually applied to the design of highly complex engineering systems, such as those found in the US Department of Defence or NASA. Thus, parametric estimating relies on simulation models that are systems of statistically and logically supported mathematical equations. The impact of system attributes, performance and complexity on cost are defined by these equations.

Tailoring parameters are used to describe the system to be estimated and the output of the models is validated with data from past projects. Cost estimators can be useful tools to estimate the cost implications of even much simpler design problems, such as – what is the optimal size of a satellite dish?

An unusual application of PCA – NASA's DSN array

The issue faced by NASA was, however, much greater – a growing demand for increased data downlink from deep-space missions required a substantial increase in ground-based communication capacity.[3] One possible solution was to add coherent arrays of small-aperture (12 metres) antennae to the Deep Space Network (DSN), rather than the large-aperture (up to 70 metres) in use at the time. Cost effective arrays would combine design and implementation strategy to achieve an optimal balance of performance and cost over the expected 20-year life of the array.

The basic parametric methodology used was to compute the antenna-related life cycle cost (LCC) as a function of antenna diameter and to select the antennae diameters that minimise LCC. PCA identified 11 antenna-related LCC cost estimators, along with the linear model of the dependence between their per-antenna cost and the antenna diameter. The cost estimators included in the parametric model were the following:

- power and foundation;
- frequency and timing signals (TMS);
- liquid nitrogen for fire protection;
- heating and ventilation;
- roads and trenching;
- antenna mechanical;
- antenna amplifier;
- transmitter;
- arraying equipment;
- mechanical parts; and
- electronic components.

NASA faced a growing demand for increased data downlink

By comparing results from multiple runs with different system parameters, cost dependencies were rapidly determined. For downlink, the design-for-cost indicated that DSN LCC were minimised using an array of small-aperture antennae (aperture ranging from 10 to 16 metres).

Considering that smaller antennae have wider beams – making it more likely that a radio source is in the beam, and that the cost of electronics components was more likely to decline over time compared to mechanical components – NASA selected the optimal downlink antenna diameter as 12 metres.

PCA – the big picture

The advantage of parametric cost estimating, besides its mathematical simplicity, is that it is designed specifically to illuminate the estimators which drive total cost. It also provides a practical tool to perform the type of long-range economic analysis that would bring these specific goals within reach.

A parametric cost model groups together the different cost-estimating relationships used to estimate entire cost proposals. These models are often computerised and may include many interrelated CERs, both cost-to-cost and cost-to-non-cost. Some models use a very limited number of independently estimated values and a series of parametric interrelated cost-to-cost and cost-to-non-cost estimating relationships to predict complex proposal cost structures.

To illustrate the approach, assume, for instance, that the production of the next generation of spaceships (named Constellation) is being planned and they will enhance researchers' ability to find planets around other stars and peer deep into the history of the universe to understand its origins and structure. What would be the estimated cost of this new spaceship?

In fact, the model requires just three inputs (cost estimators) – the dry weight, the learning curve and the number of space shuttles to be built. The learning curve, as originally conceived, analyses labour hours over successive production units of a manufactured item. In parametric estimating terms, the learning curve is often used to analyse the direct cost of successively manufactured units. Direct cost equals the cost of both touch labour and direct materials – in fixed year dollars. Sometimes this is called an improvement curve. The slope is calculated using hours or constant year dollars.

The requirement is for the Constellation spaceship to be much lighter than the Shuttle (dry weight of 100,000 pounds compared to the 176-181,000 pounds of the three-engines Shuttle), and that five spaceships are needed to complete the operation, with a learning curve equal to 85% (standard value for NASA's multiple spacecrafts). Given the inputs, the parametric cost model provides a macro-level estimate of the investment necessary to make the first Constellation spaceship take off the ground – $7.37 billion for the aeronautic development and approximately $500 million to assemble each of the five spaceships.

The parametric model also permits a rapid sensitivity analysis. For example, if the dry weight can go down to just 75,000 pounds, the development cost would decrease to $6.29 billion and the unit cost would be approximately $400 million.

Then an improvement of the learning curve equal to ten per cent points (down to 75%) would lower the unit cost of production down to $330 million. Alternatively, the model can be used to consider the option to use just two, heavier ships of 150,000 pounds each which would produce a contrary effect, increasing both the cost of development (up to $9.2 billion) and the unit cost of production ($900 million per spaceship), making the entire program more expensive ($10.9) than the previous scenario with more, lighter ships ($10 billion).

PCA applied to pharmaceutical drug R&D

How, though, might the method be applied to more terrestrial activities? Drug research and development (R&D), for example, is a complex, risky and time-consuming process. Pharmaceutical companies must make the most efficient use of their resources to develop new products over all stages of the development process, from initiation to the last stage prior to seeking approval.

Late stage R&D is an expensive and critical part on the intended route to approval. The most important peculiarity of late stage pharmaceutical research is, most likely, the significant variability in the number of patients required by the Food and Drug Administration to grant marketing approval.

The number of patients enrolled in registration clinical trials represents the closest proxy to the total cost of clinical research, as the protocol requirements of randomised studies minimises the cost differences among therapeutic areas.

In other words, a patient included in a cancer study bears approximately the same cost as a patient enrolled in an allergic rhinitis (common cold) trial. Therefore, if a product is approved with a significantly lower number of patients in the regulatory database than another one, it necessarily means that the cost of development of the first one is significantly lower than the second one.

Applying PCA to pharmaceutical clinical development can help reduce the cost estimate uncertainty. Applied for the first time to pharmaceutical R&D, this methodology looks at the sample size theory as a linear relationship to pre-determine the cost of research.[4] The fundamental cost driver of late-stage pharmaceutical clinical development is the ‘effect size’ – the standardised minimal clinical difference to be observed between the treatment and the control group of patients.

The effect size is a parameter determined a priori by the investigators and it is reported in the published clinical paper as a critical element to evaluate the statistical significance of the outcome. The derived CER linearly correlates the effect size (independent variable) to the minimal number of patients (dependent variable) to be enrolled in the clinical trial. The number of patients enrolled in a clinical trial is a significant proxy for the total cost – as the cost per patient can be considered as a constant.

The possibility, which may be anticipated, to include the estimated cost of clinical research in the economic evaluation of late stage development compounds embeds one of the major contributions of this application of PCA to management practice. Estimating a priori the cost of clinical research will definitely improve the quality of stop/go decisions.

PCA provides a practical tool to perform long-range economic analysis

The immediate implication of more effective asset allocation decisions would represent a significant improvement in terms of return on investment for the entire pharmaceutical R&D process. It may, for example, lead to the earlier termination of projects with expected negative returns to dedicate resources to more innovative candidates.

Conclusion – PCA models enable design-for-cost

One necessary conclusion is that with PCA, cost is a measure of engineering and business process. The NASA experience shows how PCA can definitely help management identify the key drivers of system cost (cost estimators) and simply build them into user-friendly estimating models.

The Constellation example showed the management value of intuitive but realistic parametric models, enabling decision makers to rapidly build alternative scenarios, to compare the cost of different options and strategic choices and to make a conscious use of the engineering process to reduce cost without excessive technical and process knowledge.

Parametric estimating models enable management to make the transition from design-to-cost, as essentially an engineering process, to design-for-cost, as a management driven paradigm to achieve cost/design optimisation. Design-to-cost is the iterative redesign of a project until the content of the project meets a given budget.

Designing for cost seeks to increase system performance while reducing cost – it requires designing both the product and the product delivery process for simplicity. Complexity, on the other hand, increases cost. Designing for cost is thus an integral component of the engineering process.[5]

Competition, accuracy, flexibility, and method-proven credibility are dictating a reformation in the estimating process, especially for new business pursuits. Parametric estimating methods for planning new business cost issues can be seen as a critical element in reforming traditional bottom-up approaches. For example, parametric estimating has also recently been applied to transportation design and construction projects. Parametric estimating also goes beyond the traditional unit price form of estimating common to the construction industry and uses statistical techniques to allow the cost engineer to develop a range of probable estimates rather than using the current deterministic method. Parametric estimating also allows the cost engineer to conduct estimates before design is complete.

PCA holds great promise in the cost management of large complex projects

The tool, it appears, is gaining recognition from management consultants. For example, to mitigate uncertainty in a major project, Booz Allen Hamilton[6] used a parametric cost estimating tool that compelled technical staff to think specifically about the system's architecture and its technical definition. According to Booz Hamilton, the advantages of parametric cost estimating are that:

- it provides a framework for all parties involved to consider costs early in the program formulation stage;
- it is possible to update the analytical framework created during the initial estimate as the project advances;
- it provides a consistent reference to understand how the cost estimates change with the program's evolution; and
- uncertainty is reduced by deconstructing the project into smaller, well-defined components – the cost estimate of which can be more readily critiqued by the technical and program management staff.

PCA may, it seems, hold great promise in the cost management of large complex projects and could open an entire new field of computing-intensive economic research. It is, though, unclear whether the approach will become more generally accepted. Certainly, future cost estimating models will have to address advances in applied decision theory and computational science. **MU**

REFERENCES

1 'Proceedings of the 2006 cost analysis symposium', NASA, Cleveland, OH, 20-22 June 2006, www1.jsc.nasa.gov/bu2/conferences/NCAS2006/index.htm.

2 Cost estimating handbook, NASA, second edition, 2004.

3 'Parametric cost analysis of NASA's DSN array', MacNeal, BE, SpaceOps, Montreal, Canada, May 2004, www.spacecomm.nasa.gov/doc_repository/architecture/SCAWG_Report.pdf.

4 'Parametric cost analysis of late-stage pharmaceutical development – reducing risk in go/no go decisions', Favato, G, Mills, RW and Weinstein, W, *Henley Centre for Value Improvement*, Henley discussion paper, no 6, 2004, www.henleymc.ac.uk/hcvi.

5 'Elements of designing for cost', Dean, EB and Unal, R, presented at the AIAA 1992 Aerospace Design Conference, Irvine CA, AIAA-92-1057, 3-6 February 1992.

6 'Moving satellite communication program to the next level', Hamilton, Booz Allen, 2006, www.galorath.com/pdf/case_studies/cs_Booz.pdf.

A NEW APPROACH TO REWARD STRATEGY

Changing workforce expectations mean that for employers, the need to attract, retain and develop the commitment of employees is particularly great. Dissatisfaction and a lack of employee engagement can be due to poor strategic approaches to reward. Professor **Malcolm Higgs**, director of the School of Leadership, Change and HR at Henley Management College, provides an overview of current practical and theoretical issues and suggests that one possible solution could be an extended total reward framework.

In recent years, a debate has arisen that focuses on the importance of a strategic approach to human resource management (HRM) as it pertains to business performance and success.[1] In many ways, this has been fuelled by interest (both practitioner and academic) in a range of related issues.

These include talent management,[2] employee commitment,[3] employee engagement,[4] the impact of HR on the bottom line of a business[5] and employer brand/employer of choice.[6] The literature suggests two common underlying drivers of interest in, and a need for, a different approach to the management of an organisation's human capital. These are:

- the fundamental change in the nature and composition of the workforce;[7] and
- a growing recognition that in developed economies, people provide a sustainable basis for a company's competitive advantage.[8]

Parallel but not explicitly connected developments are evident in reward management. Practice has moved from focusing on pay (including performance-related pay and bonuses/incentives) to a more strategic consideration of the combined impact of pay and benefits provision.[9] In particular, the significance of flexibility and choice in benefits provision has increased in recent years.[10]

This broader view has been labelled as moving to a 'total reward' strategy.[11] This article explores the underlying drivers of interest in a new strategic approach to people management – and suggests a new model of total reward management. It concludes with thoughts on future research to test the proposed model.

Changing workforce expectations

Clearly, the expectations of the workforce are changing,[12] due in part to changes in the psychological contract.[13] Recent studies indicate that about 70% of employees seek meaning and purpose in their work. This represents a manifestation of earlier work by Kahn[14] who proposed that in a work context people seek:

- psychological meaning;
- safety, in terms of freedom to express themselves; and
- availability of the resources to enable them to perform effectively.

Some would argue[15] that the roots of such thinking can indeed be found in the earlier motivational theories and research of authors such as Maslow,[16] Murray[17] and McClelland.[18]

The fast-changing organisational context may have created the conditions in which employers are paying greater attention to their employees' basic expectations.[19] A growing body of literature into employee engagement[20] and talent management[21] reflects this shift. At the practitioner level, organisations are according significant resources to achieving high rankings in the various 'employer of choice' surveys.[22] Interestingly, responses to the changing significance attributed to employee expectations is seen to be leading to a new way of managing and developing people at work.

This change in approach is clearly manifested in the emerging positive psychology movement.[23] Moreover, an organisational approach based on the work of the Gallup organisation is flourishing at practitioner level.[24]

At work, we need meaning, safety and resources

*Professor **Malcolm Higgs**, director of the School of Leadership, Change and HR and director of research, Henley Management College*

The value of human capital

'Human capital' is a term which has emerged from the realisation that as the knowledge economy expands, the value of intangible assets grows rapidly.[25] Research suggests intangible assets have grown from representing 38% of a firm's total value in 1982 to 85% in 2000. Research by the Conference Board also provides insight into the value of human capital. For example:

- the cost of losing a 'talented person' in 2002/3 was between $200,000 and $250,000;
- the bottom line impact of a 'bad hire' was at least $300,000; and
- the cost of operating without a key player (technical person) at even a relatively low level (ie salary of $40,000) was around $500,000 per annum.

Studies such as this provide a context for considering the value of human capital and how to best manage this valuable 'people asset'. Similarly, there is research that has examined the impact of people management policies and practices on the financial performance of organisations. Early work in this area was concerned with the relationship of HR/people management practices and their impact on the bottom line. In exploring this relationship, Ulrich[26] initially drew on the Sears case study[27] which indicated a clear relationship between employee commitment, customer commitment and bottom line performance in this business. For example, a 5% increase in employee commitment led to a 3% rise in customer commitment and consequently to a 0.25% increase in shareholder value. This model of 'employee value chain' has subsequently been adopted in a range of corporations across the world. Indeed, studies within Europe – and the UK in particular – have shown a distinct link between good, well-implemented HR practices and both employee commitment and financial performance.[28]

However, preceding these studies, Allen and Meyer[29] had clearly demonstrated a link between 'affective' commitment of employees and organisational performance. They identify three types of commitment:

1) affective commitment;
2) continuous commitment; and
3) normative commitment.

Affective commitment is positioned as the positive form and includes a desire to remain, as well as a willingness to exert discretionary effort on behalf of the organisation. A range of studies using this framework have found strong support for Allen and Meyer's original work[30] and recent literature on employee engagement has built further on this theme. Whilst some have argued that employee engagement and employee commitment are interchangeable concepts, McBain[31] has argued clearly that organisational commitment is an outcome of employee engagement. The literature on engagement (both practitioner and academic) indicates significant financial and organisational benefits. For example:

- organisations with high levels of engagement have a more than 70% probability of achieving their goals than those with lower levels of engagement;[32]
- high engagement organisations achieve better operating margins. A 5% increase in engagement can lead to a 0.7% increase in operating margins;[33]
- employees in high engagement organisations are twice as likely to remain with their employer than those in lower level engagement organisations;[34] and
- firms with higher levels of employee engagement outperform industry sector growth by 6%.

Similar patterns of benefits are encountered in the research into talent management.[36] In particular, organisations with good talent management practices demonstrate more cost effective recruitment, higher levels of motivation and retention and enhanced customer perceptions.[37]

A third stream of research and literature relates to the concept of employer of choice.[38] This concept not only reinforces the claimed benefits of engagement and talent management, but provides distinct insights into the practices which build the brand. Research into organisations achieving top-level employer of choice status in the US suggest that achieving such standing can be worth more than $10 million per annum to organisations.

Higgs analysed the practices of the UK *Sunday Times* top 10 and the USA *Forbes* top 100 organisations underpinning these employer of choice organisations and found the following to be common practices:

- attractive financial rewards (in relation to competitor organisations, rather than in an absolute sense);
- good benefits compared to competitor organisations. Significantly, though, flexible benefits packages and the fact that benefits were available to all employees (albeit to differing levels) were important;
- a strong sense of shared ownership of purpose. In commercial organisations this tended to entail share options; however, in both public and private sector organisations it entailed involvement in decisions and clear shared vision relating to the purpose of the organisation;
- a high level of focus on, and investment in, the development of all employees; and
- a strong positive climate and organisational culture. In relation to this, the importance of the role of an employee's immediate line manager was seen to be very important.

Organisations with good talent management benefit from cost effective recruitment

A changing role for reward management

'Traditional' views of the role of reward in attracting, retaining and developing the commitment of employees may be somewhat limited, given this context. In general, it appears that employees are becoming less satisfied with payment levels. A recent survey[39] indicated a drop of satisfaction from 60% in 1970 to 40% at the end of the 1990s. Similarly, attempts to engage employees by rewarding performance appear equally problematic. The same survey indicated that only 43% of organisations viewed their performance-related reward schemes as being successful.

Such results could stem from the fact that organisations are failing to adopt a strategic approach to reward.[40] Over the last decade there has been a growing development in thinking and practice in terms of using reward in a strategic way to align employee behaviour with organisational strategic goals.[41] The alignment of overall HR strategies with business strategies has been at the forefront of much of the thinking about leveraging the value of human capital in an organisation and developing organisational performance.[42] However, the theorising and research related to strategic HRM and alignment has remained at a relatively high level.[43]

The strategic reward developments have led to more tangible approaches to creating alignment. However, thinking in this area has tended to focus on issues relating to tangible extrinsic rewards. In general, there has been an evolution in thinking, from considering the strategic role of pay (including performance related pay and incentives) to the role of pay and benefits combined and in particular the use of flexible benefits strategies, or a move from focusing on 'total cash' to 'total compensation'. Some refer to this as the basis of a 'total reward strategy.'[44] However, others have pointed out that a total reward strategy should encompass both extrinsic and intrinsic reward components.[45]

Towards a total reward strategy

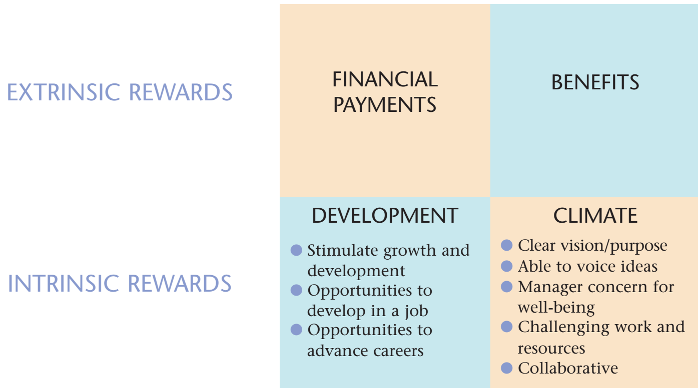
The engagement and talent literature (see above) points to a range of issues and interventions which integrate differing HR or 'people' policies and practices.[46] Indeed, it may provide an over-arching framework for building a strategic approach to managing people within an organisation. It is equally clear that to date, developments in thinking and practice around reward management have focused on the extrinsic components, whilst the drivers of current employee needs appear to require a more intrinsic level of reward. In reviewing the reward, engagement and commitment literature, a potential total reward framework is suggested. This is shown in Figure 1 (see right).

The elements within this framework are:

- *financial payments* – this comprises base salary, processes for salary progression, bonus payments, incentive plans and any other structured financial payments;

Figure 1 **A total reward framework**

Figure 2 **Engagement and total reward**



- *benefits* – this area comprises the totality of the benefits package, including elements of choice and flexibility;
- *development* – the provision of formal development, access to developmental opportunities, financial support for individual development, career path clarity and career management; and
- *climate* – this is the experienced reality of working in the organisation. It includes the physical environment, but more importantly the 'emotional' environment. Whilst the organisational culture and its manifestations through policy and practice are important, this area is strongly influenced by the experiences of working with an individual's immediate manager.[47]

Support for this overall, integrated framework can be found in both the literature relating to the employer of choice debate and that relating to engagement. Key findings from these literatures are mapped on to the total reward model in Figures 2 (above) and 3 (overleaf).

From Figure 2 it is evident that engagement is very concerned with effective management of intrinsic reward strategies, whilst becoming an employer of choice also requires appropriate attention to extrinsic reward strategies (see Figure 3).

Perhaps combining Figures 2 and 3 could provide the basis of a total reward strategy designed to build high levels of engagement and consequently performance.

Figure 3 Employer of choice

EXTRINSIC REWARDS	FINANCIAL PAYMENTS • Attractive in relation to comparator group	BENEFITS • Good range • Available to all • Flexible
INTRINSIC REWARDS	DEVELOPMENT • High level of investment • Planned	CLIMATE • Open management style • High levels of involvement • Empowerment • Strong communities • Flexibility

An important part of the success of such a strategy is clearly building line management capabilities. Much of the engagement, employer of choice and talent literature emphasise the significant role of line managers.[48]

Conclusions

Clearly, based on the reviewed literature, an extended total reward framework offers the potential basis for a strategic approach to building employee engagement and organisational performance. The proposed framework links much of our current thinking and practice on total compensation (pay and benefits) with well-established work on individual needs and motivation.[49] Adopting a total reward view through the lens of engagement tends to provide an integrative people management framework. Interestingly, this shows the relatively low leverage of pay as a means of achieving organisational performance. However, the fact that we do not appear to have discovered anything new should not be a cause for concern. As Karl Weick so elegantly put it: "Making sense is moving forward".[50]

An extended total reward framework offers the potential basis for a strategic approach to building employee engagement

This article has developed a framework from a range of research data and thinking and through integrating differing streams. The next step is to empirically test the model. Given the predominantly quantitative nature of the assessment of engagement and commitment, it would seem appropriate to convert the model into a questionnaire and explore its validity through quantitative comparison to the engagement and commitment data. Nonetheless, the general trends and issues discussed – and the potential framework – do have a range of practical implications for practitioners and organisations. These include:

- a need to ensure that HR strategies and practices are more integrated (eg avoiding dealing with issues such as reward and management development in isolation) and aligned to core strategic goals;
- spending more time in exploring the existing culture and climate and identifying changes required to achieve greater levels of employee engagement;
- identifying opportunities to create greater flexibility and choice in the structure of benefits packages; and
- investing time and effort in developing the capabilities of managers in terms of creating a positive working climate for members of their teams.

The last of these, in fact, may be the area in which the impact of actions could be most significant, since 'whilst people join an organisation, they tend to leave their manager.'[51] **MU**

REFERENCES

1. ‘The three-dimensional people strategy: putting human resources policies into action’, Gratton, L and Truss, C, *Academy of Management Executive*, no 17, vol 3, pp 74-86, 2003. ‘Human resource management and performance: a review and research agenda’, Guest, D, *The International Journal of Human Resource Management*, vol 8, no 3, pp 263-276, 1997.
‘A quarter-century review of human resource management in the US: the growth in importance of the international perspective’, Schuler, R and Jackson, SE, *Management Revue*, vol 16, no 1, pp 11-35, 2005.
‘Reappraising psychological contracts’, Sparrow, PR, *International Studies of Management and Organisation*, pp 30-63, 28 January 1998.

2 ‘Take this job and ...’, Conference Board, *ExecutiveAction*, February 2005, www.conferenceboard.ca/documents_EA.asp?rnext=1191.
‘Demonstrating the value of total reward presentation to employee benefits’, Higgs, M, *Employee Benefits Conference*, Manchester, April 2006b.

3 ‘Organizational socialization tactics: a longitudinal analysis of links to newcomers’ commitment and role orientation’, Allen, N and Meyer, J, *Academy of Management Journal*, vol 33, no 4, pp 847-858, 1990.

4 ‘Employee engagement – the emergence of a new construct?’, McBain, R, *Henley Manager Update*, Braybrooke Press, Summer 2006.
‘First, break all the rules: what the world’s greatest managers do differently’, Buckingham, M and Coffman, C, Simon Schuster, 1999.

5 Guest, D, op cit.
‘The HR value proposition’, Ulrich, D and Brockbank, W, Boston, MA: Harvard Business School Press, 2005.

6 Higgs, M (2006b), op cit.
‘What benefits and culture make an “employer of choice”?’, Higgs, M, *Presentation to Employee Benefits Conference*, October 2005.

7 Higgs, M (2006b), op cit.
Higgs, M (2005), op cit.

8 Gratton, L and Truss, C (2003), op cit.
Guest, D (1997), op cit.
Ulrich, D and Brockbank, W (2005), op cit.

9 ‘Home grown’, Brown, D, *People Management*, vol 12, no 17, pp 38-40, 2006.
‘Strategic reward: making it happen’, Brown, D and Armstrong, M, Kogan Page, 2006.

10 eg Wilson, (2006).

11 Higgs, M (2005), op cit.
Higgs, M (2006b), op cit.
Brown, D (2006), op cit.

12 ‘The challenge of change management… what do we really know about effective leadership in change management?’, Higgs, M, *ExecutiveAction*, no 178, 1-5, Conference Board, NY, 2006a.
‘Creating competitive advantage from your employees: a global study of employee engagement and disengagement at work’, ISR, 2004, www.isrinsight.com.
Higgs, M (2005), op cit.
Higgs, M (2006b), op cit.

13 ‘Psychological contracts in organisations: understanding written and unwritten agreements’, Rousseau, D, Thousand Oaks, CA: Sage, 1995.
‘Emergent theories of career: searching for a new employment orthodoxy’, Osborn-Jones, T, *Henley Working Paper Series*, HWP 2000/03, Henley Management College, 2000.

14 ‘Psychological conditions of personal engagement and disengagement at work’, Kahn, WA, *Academy of Management Journal*, vol 33, pp 692-724, 1990.

15 Kahn, WA (1990),
Higgs, M (2005), op cit.
Higgs, M (2006), op cit.

16 ‘A theory of metamotivation: the biological rooting of the value life’, Maslow AH, *Journal of Humanistic Psychology*, 7, pp 93-127, 1967.

17 ‘Explorations in personality,’ Murray, HA, New York: Oxford University Press, 1938.

18 ‘Human motivation’, McClelland, DC, Cambridge: Cambridge University Press, 1987.

19 ‘Work happy: developing employee engagement to deliver competitive advantage’ Stairs, M, *Selection and Development Review*, vol 21, no 5, pp 7-11, 2005.

20 ‘Well-being in the workplace and its relationship to business outcomes: a review of the gallup studies’, Harter, JK, Schmidt, FL and Hayes, TL, 2002, in ‘Flourishing: the positive person and the good life,’ Keyes, CL and Haidt, J (eds),Washington DC: *American Psychological Association*, pp 205-224.
McBain, R (2006), op cit.

21 ‘Effective talent management’, Ashton, C and Bellis, R, London: Careers Research Forum, 2003.
Conference Board (2005), op cit.

22 Higgs, M (2005), op cit.
Higgs, M (2006), op cit.

continued on next page

continued from previous page

REFERENCES

23 'Positive organizational behaviour: developing and managing psychological strengths', Luthans, F, *Academy of Management Executive*, vol 16, no 1, pp 57-72, 2002.
'Selection and development: a new perspective on some old problems', Linley, PA, Harrington, S and Hill, JRW, *Selection and Development Review*, vol 21, no 5, The British Psychological Society, 2005.
Harter et al (2002), op cit.
24 Buckingham, M and Coffman, C (1999), op cit.
25 Conference Board (2005), op cit.
26 'Human resource champions: the next agenda for adding value and delivering results', Ulrich, D, Boston, MA: Harvard Business School Press, 1997.
27 'The employee-customer-profit chain at Sears', Rucci, AJ, Hirn, SP and Quinn, RT, *Harvard Business Review*, January/February, pp 82-97, 1998.
28 Guest, D (1997), op cit.
29 Allen, N and Meyer, J (1990), op cit.
30 'Employee commitment to the organization and customer reactions: mapping the link ages', Allen, N and Grisaffe, D, *Human Resource Management Review*, 11, pp 209-236, 2001.
31 McBain, R (2006), op cit.
32 'Managing and rewarding talent in Europe – recent study findings', Towers Perrin, 2004, www.towersperrin.com.
33 'Towers Perrin 2005 Workforce Study', Towers Perrin, 2005, www.towersperrin.com.
34 ISR (2004), op cit.
35 ISR (2004), op cit.
36 Ashton, C and Bellis, R (2003), op cit.
Higgs, M (2005), op cit.
Higgs, M (2006), op cit.
37 Conference Board (2005), op cit.
38 Higgs, M (2005), op cit.
39 'Next-generation talent management: insights on how workforce trends are changing the face of talent management', Tucker, E, Kao, T and Verma, N, *Business Credit*, Jul/Aug, vol 107, no 7, pp 20-27, 2005.
40 Brown, D (2006), op cit.
Armstrong, M and Brown, D (2006), op cit.
41 'Future trends in HR', Higgs, M, 2004, in 'People management challenges and opportu nities', Rees, D and McBain, R, Basingstoke: Palgrave Macmillan.
Brown, D (2006), op cit.
42 Gratton, L and Truss, C (2003), op cit.
'The alignment of HR and business strategies and its relationship to effective organisational performance', Castro Christiansen, L and Higgs, M, *Henley Working Paper*, HWP0609, Henley Management College, 2006.
43 Castro Christiansen, L and Higgs, M (2006), op cit.
44 Brown, D (2006), op cit.
45 Higgs, M (2005), op cit.
46 Stairs, M (2005), op. cit.
47 'Motivation and organizational climate', Litwin, GH and Stringer, RA, Boston, MA: Harvard Business School Press, 1968.
'A causal model of organizational performance and change', Burke, WW and Litwin, GH, *Journal of Management*, vol 18, no 3, pp 523-545, 1992.
'A critical review of three variables in the Burke-Litwin model: leadership, management practices and work unit climate (a literature review)', Cannon, F, *Henley Working Paper Series*, HWP 2000/06, Henley Management College, 2000.
48 Kahn, WA (1990), op cit.
Conference Board (2005), op cit.
Buckingham, M and Coffman, C (1999), op cit.
Litwin, GH and Stringer, RA (1968), op cit.
49 Maslow, AH (1967), op cit.
McClelland, DC (1987), op cit.
50 'Sense-making in organisations', Weick, KE, Thousand Oaks, CA: Sage, 1995.
51 Higgs, M (2006), op cit.

INDEX OF MU ARTICLES

These are the articles published in *Manager Update* since April 2003, arranged by subject and listed by issue number, date of publication and article headline. All these articles (and issues 1-24) are available on the Faculty website at www.icaew.com/managerupdate. Most are available as PDFs – some of the later issues can also be viewed as HTML pages. If you have any queries about Faculty publications, please contact the Faculty on 020 7920 8508 or email fmfac@icaew.com.

MAKE YOUR FACULTY WORK FOR YOU ...

... TO LEARN MORE, VISIT WWW.ICAEW.COM/FMFACPROSPECTUS

"The Faculty consistently produces a range of thoroughly good, practical publications as well as providing useful, enjoyable events. I would commend it to anyone in business."

Nigel Turnbull, author of the Turnbull report and a non-executive director of various companies.

MANAGER UPDATE

... is produced on behalf of the Faculty by Silverdart Ltd, Unit 211, Linton House, 164-180 Union Street, London SE1 0LH. Tel: 020 7928 7770; fax: 020 7928 7780; contact: Alex Murray or Joanna Gonet.

www.icaew.com/fmfac

The Finance & Management Faculty,
The Institute of Chartered Accountants
in England and Wales,
Chartered Accountants' Hall,
PO Box 433, Moorgate Place,
London EC2P 2BJ

Telephone: 020 7920 8486
Fax: 020 7920 8784
Email: fmfac@icaew.com

FACULTY CONTACTS

General enquiries – Chris Jackson (chris.jackson@icaew.com)

Publications – Emma Riddell (emma.riddell@icaew.com)

Membership and events – Caroline Tan (caroline.tan@icaew.com)

TECPLM6015