Managing risk and reputation in the biotechnology industry

Date received (in revised form): 26th January, 2001

Chris Moon and Mike Piper

Chris Moon
is a Manager of Ethics & Corporate Social Responsibility with Andersen Risk Consulting in London. He is a specialist in behavioural risk management with a Master's in applied psychology. Prior to joining Andersen he held a variety of posts in the public and private sectors and consulted and lectured on business ethics and management development.

Mike Piper
is an analyst with Andersen Business Consulting in London. He has a PhD in genomics from the MRC LMB in Cambridge, and has published several papers on the genomics of pathogens. While completing his PhD he instigated the *Cryptosporidium parvum* genome project, an initiative that resulted in a joint venture to sequence that pathogen between the LMB and MWG Biotech.

Chris Moon
Andersen, 1 Surrey Street, London WC2R 2PS, UK

Tel: +44 (0) 207 438 3381
Fax: +44 (0) 207 438 2237
E-mail chris.moon@uk.andersen.com

Abstract One of the most important assets any company has is its reputation – damage to a company's reputation will reduce its ability to create value. Owing partly to intense media coverage and intense public interest, and partly to market volatility and the vagaries of the clinical trials process, biotechnology companies face risks to their reputation not always faced by other industries. In this paper some of these risks are highlighted, and the best practices that can be used to manage them are discussed. Drawing upon research conducted by Andersen over a three-year period and involving 10,000 organisations, the authors provide insights into how companies in many sectors are creating value through their tangible and intangible assets. The *value dynamics framework* is applied to life science companies in order to demonstrate that reputation damage is a key risk that needs to be managed.

Keywords: reputation, risk management, intangible assets, value, ethics

Introduction

The gap between market value and book value has widened over the last 20 years. Today, market value is five times book value, with 60 per cent of value residing in non-book assets such as intellectual property, innovation, knowledge, employees and reputation. However, the traditional auditing process only assures physical and financial assets, and therefore tends to consider risks associated directly with these.

We contend that, if companies are to create maximum value in today's business climate, then they must fully understand and exploit *all* the assets they hold, tangible and intangible. It therefore follows that successful companies will manage and optimise the risk/return trade-off associated with their employees, suppliers, customers and their reputation.

The importance of intangible assets is increasing

In the industrial era, most of a company's market value was made up by its book value – its financial and physical assets. Indeed, a Venetian monk developed the dominant framework that has accounted for wealth creation for the last 500 years. It has stood the test of time, systematising the accounting of physical and financial assets in the Industrial Age. However, the major problem with this framework is that it does not capture the value of intangible assets – assets that, as we contend, are now the primary source of company value (Figure 1).

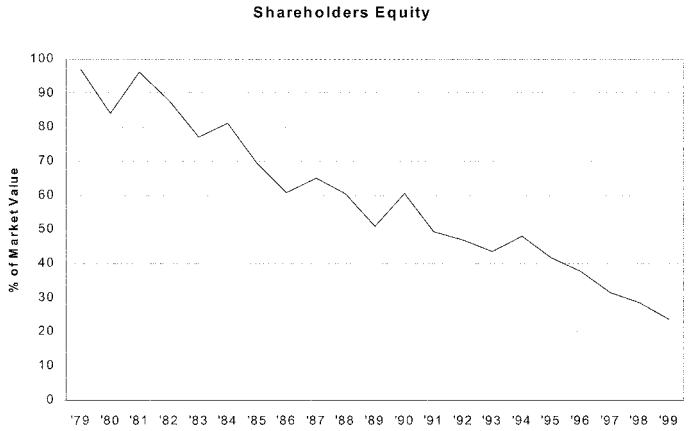

Fig. 1 Book value versus market value (data from 3,500 US public companies in the finance & insurance, utilities, manufacturing, healthcare, food manufacturing and information industries. Research conducted by Arthur Andersen)

We contend that this difference in the importance of book value points towards the increased importance of intangible assets in the 'New Economy'. This much-used phrase was originally coined in the Jan./Feb. 1993 edition of *Harvard Business Review* by Alan Webber, who wrote an article entitled 'What's so new about the new economy?'[1] It opened with these words: 'For more than a decade, business observers have been predicting the coming of a new kind of economy'.

Alan Webber was an editorial director of the *Harvard Business Review* when he left to found Fast Company with William Taylor later in 1993. Fast Company was started with two fundamental propositions: that there was a new world of business evolving, and that there was a community committed to new ways of working, competing, living and growing. And one of the main markers of the new economy has been the increased importance of intangible assets.

Biotechnology is an industry highly dependent on intangible assets. Consider the following figures:

- At the end of 1999, the worldwide biotechnology industry had a market capitalisation of US$312bn.
- The industry had sales of US$28.8bn.
- The industry as a whole made a loss of US$2.8bn.

Although it is clear from the above figures that the biotechnology industry has considerable revenues, these do not account for the huge market value of the sector. Indeed, the industry has a relatively high price to revenue ratio of 18.8.[2] The biotechnology sector is valued so highly because analysts feel it has the potential to monetise its *intangible* assets, those assets that do not show up in the balance sheet. It is these intangible assets (principally intellectual property assets) that drive the valuations of biotechnology companies.

For example, assets and market capitalisation as of 22nd January, 2001, were:

- Amgen: total assets US$5bn, market capitalisation US$62bn;
- Celltech: total assets £768m, market capitalisation £3bn;
- Genentech: total assets US$7bn, market capitalisation US$28bn.

The biotechnology industry's most important assets are intangible

Andersen has analysed 450 variables for 10,000 companies over the last 20 years to

determine the drivers of value in the stock market.[3] Based on further analysis of the relationship between asset portfolios (tangible versus intangible) and shareholder return, four major findings result:

- Intangible assets are the engine of wealth.
- A company's asset portfolio – more than its industry – determines success.
- Companies with fewer physical assets generate higher returns, with less risk.
- Most business leaders recognise the importance of intangibles, but do not act to identify, measure and manage those assets.

This understanding was used to develop the *value dynamics framework*, which identifies a firm's most important assets, tangible and intangible. There are five categories of assets that need to be recognised in a new model – physical, financial, customer, employee and supplier, and organisation (see Figure 2).

Biotechnology companies can exploit all of these assets in different ways. However, it is generally accepted that a biotechnology company's most important assets generally fall into the organisational assets segment. As the extreme example of this, early stage biotechnology companies with no revenues are evaluated solely through an assessment of their organisational assets, particularly their technology position (intellectual property), management strength (leadership) and strategic positioning (strategy). In other words, early stage biotechnology companies (and, to a lesser extent, all biotechnology and pharmaceutical companies) are valued on their expected ability to monetise these organisational assets.

Current risk management standards do not take intangible assets, such as reputation, directly into account

The traditional auditing process only assures physical and financial assets, and therefore only considers risks associated with these assets. If companies are to create maximum value in today's business climate, then they must fully understand and exploit *all* the assets they hold, tangible and intangible. It therefore follows that successful companies need to manage and

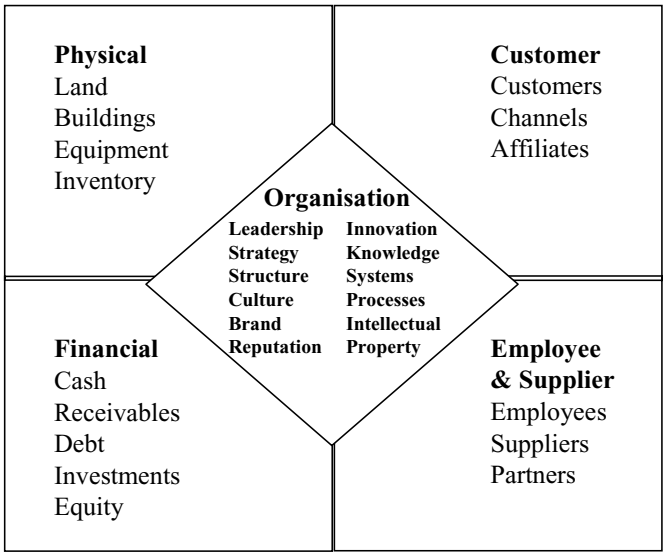

Fig. 2 The value dynamics framework

optimise the risk/return trade-off associated with all of these assets. The main risks associated with each class of asset are shown in Figure 3.

Reputation is at the heart of the value dynamics framework. And damage to reputation leads to a fall in the overall value of the firm. Examples include the following:

- Improper reporting or massaging of clinical trial data. In recent years, there have been several cases of companies overhyping the potential of their drugs, either by not using 'good clinical practices' in their trials or by misrepresenting clinical trial data. When these cases have come to light, the consequent loss of reputation has been accompanied by a dramatic fall in the valuation of the company. A US biotechnology company lost 59 per cent of its market value in one day recently when it was accused of misrepresenting clinical trial data. A firm's reputation will also be damaged if a potential new drug fails regulatory tests even though no improper behaviour took place.
- Damage to a company's reputation through critical media reports, or through protests and demonstrations by pressure groups. Media coverage and pressure groups have contributed to a dramatic slide in the share prices of some of the companies they target. One UK life sciences company lost 84 per cent of its market value in eight months after being targeted by protestors.

Managing reputational risks – best practices

What can a company do to manage its reputation, and all the other risks identified by the value dynamics framework? It needs an approach that is enterprise wide. Current risk management approaches are fragmented, treating risks as disparate and easily compartmentalised. The enterprise-wide business risk management (EWRM)[5] process is a structured approach that aligns strategy, processes, people, technology and knowledge, with the purpose of evaluating and managing the uncertainties that an enterprise faces as it creates value. Although a full description of EWRM is beyond the

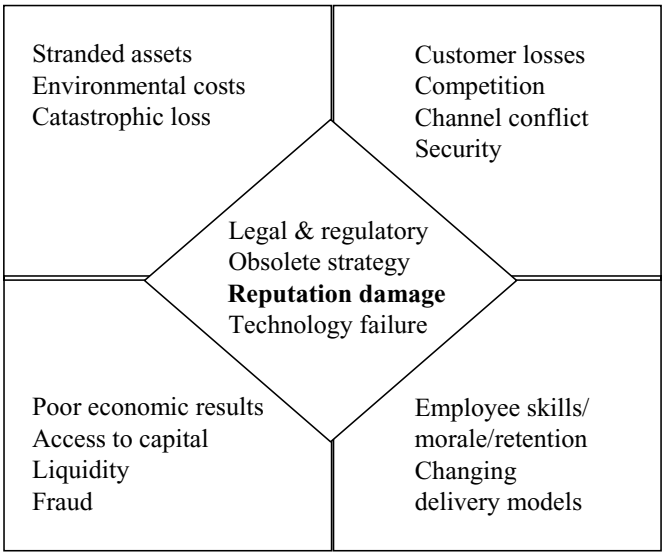

Fig. 3 Risks associated with tangible and intangible assets

scope of this paper, it is useful to consider the three types of business risks identified by the EWRM framework in the context of reputation risk (see Figure 4).

Implicit in the EWRM model is that all strategic actions are carried out with the objective of maximising the value of your assets. Normally, when deciding on a strategic course of action, one examines the environmental risks before making a decision. Environmental risks are external risks arising from elements beyond a firm's control such as changes in economic and market conditions, new regulatory requirements, emerging technologies and political uncertainties. In the examples used above, reputational damage arising from critical media coverage or the actions of protesters is an environment risk.

Once a firm's strategic course is implemented, a whole new set of process risks emerges. Process risks are internal risks arising from internal processes such as the ability to secure funding for a project, the ability to manufacture sufficient amounts of a product, the ability to recruit and retain employees and the ability to meet existing regulatory requirements. In the examples used above, the misrepresentation of clinical trial data by an employee is a process risk.

The final class of risk, information risk, is the risk that data you use to make strategic decisions or manage processes are inaccurate, irrelevant or incomplete. Information risks affect your business at all stages of decision making and process implementation.

Reputation risk management best practice model

Reputation risk is the risk that a representative of the organisation will make a decision or behave in a way that is inconsistent with the organisation's values or stakeholder expectations. Representatives include employees, subcontractors, partners, agents, etc. Values refer to minimum standards of behaviour, ie they are universal and compulsory. Stakeholders include those individuals or groups that impact on or are impacted by the actions of the organisation. Failure to manage reputation risk can lead to litigation, fines or penalties, increased scrutiny, long-term damage to the good name of the company, or even inability to operate.

An organisation has three broad responsibilities: to identify relevant values and expectations; to communicate values and expectations to stakeholders; and to build and maintain a culture that encourages and insists on responsible business practices. Our best practice model provides a seven cornerstone framework for reputation risk management (see Figure 5).

The model is based on research conducted in the UK in association with London Business School of FTSE 350 companies and those of equivalent size.[6]

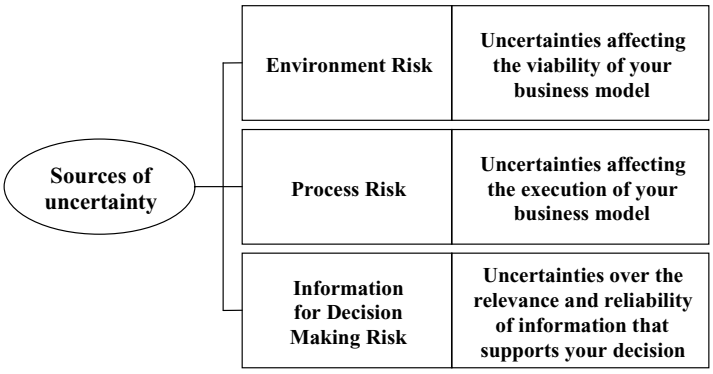

Fig. 4 The three categories of business risk

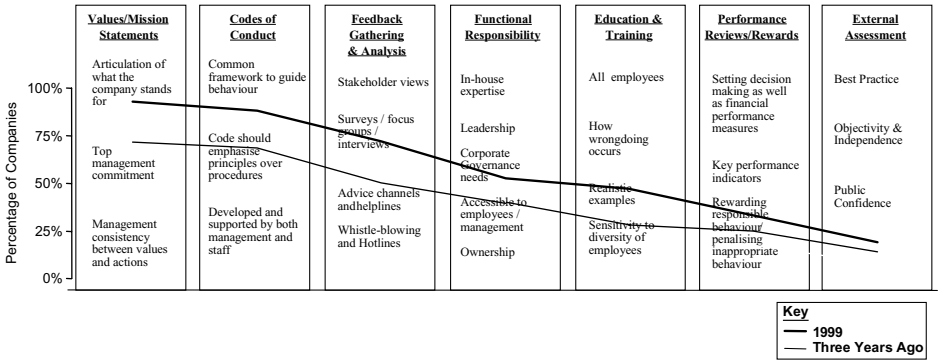

Fig. 5 Reputation risk management best practices model

The study found that the use of business ethics programmes by leading UK companies had increased significantly in the prior three years. Most companies articulate their values through mission statements, etc. and communicate these to stakeholders through codes of conduct. However, inconsistencies might exist between what the company says it will do and what it actually does. Best practice indicates that there needs to be commitment to the code in practice throughout the organisation and that support for the code is best developed via participation in its development. (Each bar of the chart contains the various components of an ethics programme referred to in the study findings, the order of the items does not refer to the scale concerning the percentage of companies. For further details see the full study.)

In order to build and maintain an ethical culture the values of the organisation need to be embedded into actual practice. The study found that though companies have hot-lines these are generally not used – perhaps this is because whistleblowers are not confident in this method of reporting. Best practice indicates that reporting and other feedback mechanisms need to be set up for confidential reporting in order that whistleblowers do not fear retaliation. Advice channels and helplines that are genuinely respected could provide valuable early warning signals. Other methods to gather feedback on the ethical culture of the company tend not to be very sophisticated and hence might not provide essential data for management to make decisions.

In fact, companies tend to feel that they can manage such issues themselves without the need for external assessment. The study suggests that companies that rely exclusively on in-house expertise might not have the deep skills necessary to identify and tackle key risks. Employees, for example, need to feel that their managers are approachable and that issues will be dealt with when raised. All too often training concerning ethics is limited to communication of standards and to the reserve of senior management. Best practice indicates that all staff should receive ongoing education and training. And the content of this training should be based on real-life examples of the types of issues employees actually face. Furthermore, ethical behaviour should be reinforced in performance reviews and rewards, eg through assessment against key performance indicators. Sanctions consistently applied also reinforce acceptable behaviours.

Conclusion

Research conducted by Andersen and reported in this paper demonstrates that companies can create value from managing all of their assets – tangible and intangible. Reputation is a key component that needs to managed – and this is particularly pertinent in life sciences where reputation damage has resulted in significant financial losses.

By drawing upon a best practices model companies can now have access to benchmark data which they can use to make decisions about where key resources should be applied.

Acknowledgements

The authors have based this article on a workshop delivered at The 8th Annual BioPartnering Europe conference, which took place in London on 16th–17th October, 2000.

References

1. Webber, A. (1993), 'What's so new about the new economy?', *Harvard Business Rev.*, Jan./Feb.
2. Burrill & Company (2000), 'Biotech 2000 Life Sciences Changes & Challenges', Burrill & Company, San Francisco.
3. Boulton, R. E. S., Libert, B. D. and Samek, S. M. (2000), 'Cracking the Value Code, How Successful Businesses Are Creating Wealth in the New Economy', Harper Collins.
5. 'Enterprise Wide Risk Management: Strategies for linking risk and opportunity', *Financial Times*, London, 2000.
6. Arthur Anderson (1999), 'Ethical concerns and reputation risk management. A study of leading UK companies', Arthur Andersen, London.