ATTITUDES OF UK MANAGERS TO RISK AND UNCERTAINTY

Christine V Helliar
Alasdair A Lonie
David M Power
C Donald Sinclair

University of Dundee

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FOREWORD

Developing sound practices with regard to the management of risk and uncertainty which can be applied consistently is a difficult challenge for business. It can bring to mind the old joke about lining up a large number of economists but noting that they (still) do not reach a conclusion.

Yet risk and uncertainty is a topic relevant to everyone in business and so is important to accountants and auditors too. This research study is interesting because it tackles the topic from the point of view of those called upon to become involved in managing risk, and by doing so it allows the reader to consider some practical aspects which a more theoretical desk study would be unlikely to reveal.

The Research Committee of The Institute of Chartered Accountants of Scotland is pleased to have funded the project that resulted in the publication of this study, and we hope that you will find the insights useful and stimulating in developing your own management approach to handling risk and uncertainty.

Nigel Macdonald
Convener, Research Committee

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The researchers would also like to thank the reviewers for their helpful comments and Professors Vivien Beattie and Pauline Weetman, current and former Directors of Research at The Institute of Chartered Accountants of Scotland, Ann Lamb, Assistant Director and Isobel Webber, Personal Secretary to the Director of Research, for their help and assistance throughout this project.

We would also like to thank participants at several conferences for their useful comments and advice on the development of this project and on the analysis of our findings.

The Research Committee is particularly grateful to the Trustees of the Scottish Chartered Accountants’ Trust for Education who gave financial support for this project.
In today’s fast-changing world, business must be flexible to survive and risks and opportunities must be accurately identified and evaluated if they are to be managed successfully. A number of well-publicised financial disasters in recent years reinforce this point. These disasters have compelled regulatory authorities and professional bodies to examine whether companies have systems in place to manage the risks that they face and to report on these systems to outside stakeholder groups. To date, much of the emphasis has been on the appropriateness of different systems for evaluating different risks and the usage of financial products for risk management purposes. This research report adopts a different perspective and concentrates on the attitudes to risk of employees within firms. There are a number of reasons for this different emphasis. Any risk management system will have input from, or be implemented by, individuals and therefore the attitudes of these individuals to risk may have an important bearing on the successful implementation of the system. It is individuals within organisations who take risks and an enquiry into the attitudes of these individuals to the risks that they face and the decisions that they make may help companies to manage risk in the future. International research in psychology suggests that individuals in a wide variety of settings incorporate biases into their decisions that may result in inappropriate risks being taken or risks being ignored altogether. This investigation examines whether UK managers suffer from the same biases as their international counterparts.

More importantly, the approach adopted in this work allows a study of the circumstances in which managers make inconsistent choices about risk and should help individuals avoid such inconsistencies in the future. The focus on individual attitudes to risk should aid companies with their recruitment strategies and promotion policies by highlighting the personal traits that appear to lead to different decision-making abilities. In addition, the notion of risk taught in business-related courses and featured in financial textbooks has remained largely unchanged since the
ExEcutivE Summary

1960s; it focuses on a single number such as the variance of the possible outcomes that may arise in the future.

Objectives and research approach

Studies in the UK into (i) the features of a decision that contribute to perceived risk and (ii) managers’ attitudes to risk have been almost non-existent to date. This research report attempts to remedy this deficiency; it investigates the various risks that companies face, studies the different decisions taken in certain situations and documents decision makers’ perceptions and attitudes to risk. The study reports the results of 29 interviews with UK managers in a broad cross section of UK organisations. It also analyses the findings from two large postal questionnaires sent to different functional groups of company managers.

Research questions

The research report explores seven research questions about the importance of risk to UK businesses. These seven questions are:

1. What are UK managers’ perceptions of risk and does this perception vary between managers?
2. Do UK managers concentrate on avoiding losses in risky situations?
3. What is the impact of personal and organisational characteristics on attitudes to risk?
4. Do decision characteristics affect attitudes to risk?
5. Do managers in failing companies exhibit different attitudes to risk and behave differently from other managers in risky situations?
6. Do companies attempt to manage risk and, if so, what strategies are employed for this purpose?
7. Do external stakeholder groups exert an influence on companies’ attitudes to risk?
Key findings

There are several key findings that arise from this work. These findings relate to the seven research questions that motivated this investigation:

Managers’ perceptions of risk

The results in this report suggest that managers often see risk as a multi-dimensional concept that cannot be reduced to a single quantitative surrogate and tend to use an assortment of various features of the risky situation in coming to a decision. The managers in this study consider that their companies face many different types of risk that cannot be condensed into a single number or measure. In general the risks identified in this study can be categorised into four groups: finance-related risks; labour-related risks; strategic risks; and miscellaneous risks.

Perceptions of risk, however, seemed to be related to the functional area where a manager worked. For example, finance staff were concerned with financial risk, while personnel officers were concerned about the risk of taking on new staff.

Importance of loss avoidance

A major finding of the interviews and questionnaires is that loss aversion rather than risk aversion appears to drive important managerial decisions. The avoidance of a serious loss and, in particular, a potentially ruinous loss, influences the strategy of all the companies whose managers were consulted. Managers tend to ignore probabilities and do not calculate expected values for different decision outcomes. Instead, they focus on the size of any possible loss.
Impact of personal and organisational characteristics on attitudes to risk

A decision maker’s circumstances or an organisation’s characteristics appear to influence attitudes to risk. Nine factors are thought to increase the likelihood that a riskier decision will be taken while three factors are believed to lead to a less risky decision being made. The evidence in this survey suggests that managers view a generous reward structure involving equity options and bonus payments in a successful dynamic company where a prudent executive is unlikely to achieve profit targets as situations where riskier decisions tend to be taken. In contrast, group decisions that are formally monitored and evaluated in a less dynamic ‘follower’ organisation are thought to be less risky in character.

Characteristics of a decision that influence risk assessment

Managers have a clear view about the characteristics of a decision that influence their assessment of risk. A number of factors are thought to increase risk including the range of outcomes that might result from a decision, the ability of competitors to react quickly to a decision, the possibility of a loss and the magnitude of any loss associated with a decision.

The evidence in this study confirms the findings of earlier analyses that suggest that individuals exhibit certain biases when choosing between risky alternatives. Their choice tends to be influenced by the framing of the question; they usually treat high probability alternatives as certain and ignore low probability outcomes; they often combine alternatives that are unrelated or fail to take account of relationships between different possible outcomes. The approach to decision making of the individuals consulted in this study, therefore, does not conform to the standard approach employed in most textbooks or decision models.
Attitudes to risk in failing firms

Although managers in failing companies were not interviewed a small number of liquidation specialists were consulted. They suggested that managers in financially distressed companies became less risk averse as the possibility of failure increased. These managers undertook high-risk ventures, sold assets that were crucial to the continued operations of the firm and blurred the distinction between company and private risks. The specialists suggested that such activities did not usually occur when loans were current or liquidity relatively high.

Management of risk

The overwhelming majority of those interviewed saw the management of risk as an integral part of their job. A number of common approaches are highlighted for limiting or reducing the risk involved in certain decisions. For example, a number of interviewees agreed that their firm adopts a portfolio approach when deciding upon which risky products to invest in; they invest in several ventures and ensure that there is a balance between high- and low-risk projects in the mix. Others lower the risk of failure by entering into joint ventures with a partner whose technical expertise or marketing experience complements the strengths of their firm; this process facilitates the sharing of risks between two or more companies as opposed to carrying all the risks themselves. Other approaches to reducing company risk exposure were: gathering more information; quantifying possible outcomes; exercising more control over a situation; drawing on expertise; consulting with colleagues; taking more time to reach a decision; reducing the number of decisions to be made; and sharing responsibility for a decision.

Influence of external stakeholder groups

Managers in a number of organisations think that the attitudes of certain external stakeholders can exert an important influence on views
about risk. This is especially so where an investor holds a large block of the company’s shares, where rumours about a potential takeover circulate or where there has been a great deal of negative publicity about a company in the press.

Recommendations

This research has found that risk is an important facet of business in the UK and there are factors that influence the risk-taking propensity of managers. The following paragraphs make ten recommendations designed to improve the decision making of managers and which should change the way in which the notion of risk is taught.

Managers’ perceptions of risk

• Companies should nominate a senior executive to develop an overall assessment of risk for the organisation. Individuals within the organisation may have different perceptions of, and attitudes to, risk.

• Companies should report a variety of different risk measures so that a holistic approach to a problem can be taken. Managers should recognise that risk is multidimensional and cannot be captured by a single number such as the variance of outcomes. Also, without several measures of risk being reported, one particular viewpoint (e.g., the financial viewpoint) may dominate, resulting in inappropriate decisions being taken.

• The teaching of risk in academic institutions and the accountancy profession should be expanded to take account of the psychological factors that influence individual’s attitudes to risk and to use these insights on how managers make decisions in practice. Psychological studies on attitudes to risk contribute to our understanding of why managers make certain decisions given a range of outcomes.
Importance of loss avoidance

- *Companies should train managers to consider the upside potential as well as the downside risk associated with a decision.* The avoidance of losses is usually at the forefront of any risky decision taken and that even the slimmest chance of a large negative outcome will normally result in that option being rejected.

Impact of personal and organisational characteristics on attitudes to risk

- *Companies should appoint managers who have the necessary personal traits for the risk-taking nature of that position.* Companies may want to match the attributes of their staff with the requirements of any post they are attempting to fill so that there is not a culture clash between staff and the company’s strategy for handling risks.

- *Companies should establish multi-disciplinary committees to consider risks to ensure that different aspects of the inherent risks and biases will be recognised when evaluating major risky decisions.* Managers from different disciplines (finance, production, marketing, etc) can bring their own insights about the riskiness of a problem, anticipate risks before they arise, and build group support for any subsequent decision taken because various sections have been consulted.

Characteristics of a decision that influence risk assessment

- *Companies should train their managers to recognise the biases they bring to a risky decision.* Awareness of these biases may enable them to take more informed decisions that are consistent over time and across different settings. In particular, the framing of a particular course of action in terms of positive or negative attributes may have a dramatic affect upon the decision made. The framing of a decision can alter the risky decisions that are taken, and the availability of new alternatives may often persuade managers to take what becomes the ‘middle’ option.
Attitudes to risk in failing firms

- Individuals involved in insolvency work or who advise financially distressed firms should be aware that attitudes to risk change markedly once the company is in danger of failing. Managers may become less cautious and adopt high-risk strategies that they would never consider in more ‘normal’ circumstances.

Management of risk

- Companies should put in place formal processes to encourage managers to adopt risk management procedures. A number of strategies exist for managing risk that companies might wish to adopt and the reporting of a number of risk measures would increase the information available to assess the nature of a risk.

Influence of external stakeholder groups

- Boards of directors should formally consider the attitudes of investors and other stakeholder groups. In some companies, the attitudes of these groups influence the attitudes to risk of managers within the firm. These might need to be formally considered so that lines of communication can be established between the stakeholders and the organisation to ensure that relevant risk information is disseminated.

Conclusion

This study set out to examine seven aspects of risk in UK organisations through the use of interviews and questionnaire surveys. Businesses should recognise that managers may view the same situation very differently depending upon their personal and organisational backgrounds and upon the way the risk is portrayed. Once this has been recognised, companies can start to take better decisions and thereby achieve greater success in the future.
CHAPTER ONE

INTRODUCTION

Risk has become an increasingly important topic over the last few years for managers, investors, accountants, regulators, employees, customers and suppliers. In addition, concern about growing levels and complexity of risk in various financial and product markets have been highlighted in the media. Several reports have been published by committees sponsored by The Stock Exchange (Cadbury, 1992; Turnbull, 1999), professional bodies (The Institute of Chartered Accountants in England and Wales (ICAEW), 1997 and 1999), regulatory agencies (International Organisation of Securities Commissions (IOSCO), 1998; the Securities and Exchange Commission (SEC)) and credit rating agencies. These reports have recommended that boards of directors monitor company risks and report on such risks to investors.

As early as 1992, the Cadbury report had set out recommendations relating to the identification, evaluation and management of business risks and also encouraged enterprises to disclose specific key risks. Indeed, the UK Stock Exchange’s requirements are very clear about the publication of information on financial risks that might be material for stakeholder decisions. The London Stock Exchange’s Listing Rules require companies to disclose ‘all special trade factors or risks’.

ICAEW (1997) recommended that:

[Listed companies should present an operating review, including a discussion identifying the principal risks and uncertainties in the main lines of business, together with a commentary on the approach to managing these risks and, in qualitative terms, the nature of the potential impact on results. (Section 3.9.)]
US and other international regulatory authorities also prefer information on company risk to be divulged to the public. For example, the SEC requires foreign registrants to include factors such as:

... dependence on one or a few major customers or suppliers, governmental regulations, anticipated raw material or energy shortages, unusual competitive conditions, cyclicality of the industry and expiration of material agreements. (quoted in ICAEW, 1997, p.23).

In addition, all quoted firms in the major US Stock Exchanges must make disclosures about their concentration of risk, both general and specific, to the enterprise under American Institute of Certified Public Accountants (AICPA) Statement of Practice 94-6.

The number of bodies that believe that companies must communicate details of their risks to those outside the firm continues to grow. The Standard issued by the International Organization of Securities Commissions (IOSCO) in September 1998 included a section on risk factors that it wished to be included in company report. These risks encompassed:

... the nature of the enterprise’s business ..., expertise of management and pending expiration of material patents, trademarks or contracts (quoted in ICAEW, 1997, p.25).

Both UK and international organisations support the disclosure of risk-related information to groups interested in the current performance and long-run survival of an enterprise. However, the risks highlighted are often described in only very general terms and vary from one report to another. Very few of these reports identify which specific risks are important or define which stakeholders should be given risk-related information. None of these reports has studied how managers take risky decisions or have sought managers’ views on the factors that influence the risk of their particular companies. This research attempts to bridge this gap by seeking to explore seven research questions regarding the attitudes to risk prevailing in UK firms.

1. What are UK managers’ perceptions of risk and does this perception vary between managers?
2. Do UK managers concentrate on avoiding losses in risky situations?
3. What is the impact of personal and organisational characteristics on attitudes to risk?
4. Do decision characteristics affect attitudes to risk?
5. Do managers in failing companies experience different attitudes to risk and behave differently from other managers in risky situations?
6. Do companies attempt to manage risk and, if so, what strategies are employed for this purpose?
7. Do external stakeholder groups exert an influence on companies’ attitudes to risk?

These research questions emerge from a framework (as shown in Figure 1.1) that the recent psychological literature seems to support. This literature (which is summarised in chapter two) suggests that organisational characteristics, the personal traits of the decision maker and decision characteristics all help to explain the risk choices that are made. A separate section of the literature focuses on the impact of financial distress on these choices. The questionnaires employed in this study also include a section on the role that stakeholders might play in the risk assessments of company managers because preliminary interviews suggested that this category could be important. The evidence seems to suggest that the choices can be characterised by an emphasis on loss avoidance as well as a pre-disposition to make biased decisions in certain circumstances. The framework proceeds by assuming that when faced with risk, organisations tend to adopt different strategies to manage risk. To date, very little work has been undertaken on analysing systematically the different strategies adopted.
**Figure 1.1 Risk model**

```
Organisational
c Characteristics
(RQ 3) ————>
Decision
Characteristics
(RQ 4) ————>
Financial
Distress
(RQ 5) ————>
Stakeholders
(RQ 7) ————>
Loss avoidance
(RQ 2) ————>
Psychological
Responses
(RQ 1) ————>
Management of risk
(RQ 6) ————>
Risk choices
```

RQ = Research Question

**Definition of risk**

The word risk\(^1\) may conjure up many different ideas in people’s minds depending upon their background, expertise, or position in society. To an engineer, risk may relate to the possibility of a bridge collapsing or a building falling down and the subsequent consequences of such an occurrence. To an environmentalist, the focus on risk may be the well being of the planet. An insurer or an actuary may be concerned with the financial consequences of the risk that some catastrophe will occur or that people will live longer than expected. Business managers
in organisations throughout the world have many risks to consider and, although some may focus upon a subset of their organisation’s risks depending on their functional specialism, they still need to be aware of the other risks that may be affected by their decisions. As organisations have increased in size over the last few decades, either through mergers and acquisitions or through organic growth, the complexity and uncertainty they face has undoubtedly risen.

The word risk is derived from the early Italian word ‘risicare’ which means ‘to dare’ (Bernstein, 1996). In their classic work on organisations, March and Simon (1958) defined the term ‘risk’ to include those situations where decision makers knew the probability distribution of the consequences of each alternative outcome that might occur. ‘Uncertainty’, on the other hand, referred to situations where all possible consequences were known but where it was not possible to assign definite probabilities to particular outcomes. In 1921, Knight published his first important examination of decision making under uncertainty in which he argued that surprise arising from forecasting errors was common in organisations. In this research report the two terms are treated as synonymous (the approach taken in most accounting and finance texts).

Overview of research report

The empirical sections of this research report (chapters 3–9) aim to investigate the research questions posed at the start of this chapter and examine the decision processes of UK managers. An analysis of the results of this research should improve our understanding of how UK business people assess the risks that they face in their organisations. It should also allow an evaluation of the risk attitudes of managers who operate at different levels of the organisational hierarchy, and who, in consequence, face different types of risk for which they have varying degrees of responsibility. The findings of this study should contribute to our understanding in the areas of finance, accounting and organisational behaviour and may have important implications for managers. This investigation is descriptive in nature and exploratory in character.
The remainder of the research report is organised as follows. Chapter two describes the previous work conducted in the area of managerial attitudes to risk. Chapter three details the research methods adopted for this study and describes the backgrounds of the individuals who were interviewed or surveyed. Chapter four studies the risk perceptions of UK managers when confronted with different decision situations and examines their attitudes to loss avoidance (research questions 1 and 2). Chapter five seeks to find out whether personal and organisational characteristics have an influence on managers’ decision choices (research question 3). Chapter six describes a number of decision situations and examines how managers react to the problems described in these scenarios (research question 4). Chapter seven looks at the specific instance of company failures and investigates whether managerial attitudes to risk vary when a firm is faced with financial ruin; US research suggests that managers become more risk seeking and less cautious when their company is financially distressed (research question 5). Chapter eight asks whether organisations adopt any strategies to manage the risks that managers may take in their decision making (research question 6) while chapter nine examines the impact of outside influences on the risks that company employees are prepared to take (research question 7). Chapter ten contains the conclusions and makes recommendations.

Endnotes:
1 See Chapter two for a fuller definition of risk.
2 Where neither probabilities or outcomes were known, this would be a situation of ignorance.
Although risk is pervasive throughout society, this research report narrows its focus by concentrating on the risks that affect UK businesses. Risk is generally viewed as a necessary fact of business life and influences all organisations. For example, ICAEW (1997) states:

*Although the nature and extent may differ, risk is as applicable to a small retailer as it is to a multi-national conglomerate. A company takes risks in order to pursue opportunities to earn returns for its owners; striking a balance between risk and return is key to maximising shareholder wealth* (p.5).

The current chapter surveys the literature on risk developed by academics and relates this literature to the seven research questions outlined in chapter one. This chapter commences by defining the neo-classical notion of risk and describes briefly why this notion is different from the idea of uncertainty. The chapter then reviews the psychological and managerial theories of risk that have recently appeared in books and articles and highlights how the research questions naturally emerge from these theories. The chapter examines the evidence on whether the organisational and personal characteristics of decision makers affects their attitudes to risk. It concludes by outlining the features of a decision that might have an impact on the decision choices made such as the framing of the problem or the amount of information provided about the problem.
Importance of risk

Business plays a vital role in the current operation of UK society by providing jobs for the population and by producing goods and services consumers wish to purchase. However, the risks business organisations face appear to have been increasing in both number and variety over the last few decades. The increase in competition, the globalisation of world markets, the rise of environmental concerns, the improvements in technology and the development of communication strategies have all added to the growth in risk which businesses face (Cobb et al, 1995). Research question 1 seeks to examine UK managers’ perceptions of risk. The Turnbull Report clearly recognises risk as important when it states:

A company’s objectives, its internal organisation and the environment in which it operates are continually evolving and, as a result, the risks it faces are continually changing (p.5). … regular evaluation of the nature and extent of risks to which the company is exposed … [is required and that a company must] … be capable of responding quickly to evolving risks to the business arising from factors within the company and to changes in the business environment … (p.5,p.7).

The nature and scope of the risk review senior managers should undertake is outlined clearly in the Turnbull report.

The [directors’] review should cover all controls, including financial, operational and compliance controls and risk management (p.3) … and will depend upon … the scale, diversity and complexity of the company’s operations; and the nature of the significant risks that the company faces (p.8) … and should consider what are the significant risks and assess how they have been identified, evaluated and managed (p.9).

The review should, therefore, be fairly wide ranging in nature and relatively comprehensive in character. This monitoring would force companies to examine what they do to assess and manage key business risks of all types and provide practical forward-looking information to managers. In addition, a greater control of risks might reduce the
cost of capital for a firm and encourage the adoption of better risk management techniques and practices. This consideration of risk by senior managers should improve accountability of senior managers to shareholders and other stakeholder groups. Finally, this increased emphasis on risk should also aid investor protection and increase the usefulness of financial reporting.

Definition of risk and neo-classical theory

In classical economic theory, the definition of ‘risk’ is frequently restricted to decisions whose outcomes are subject to actuarial calculation, and ‘uncertainty’ is used to refer to those outcomes that are not susceptible to actuarial science (Keynes, 1921, 1936; Knight, 1921). Knight (1921) argued that managers should focus on risk since the uniqueness associated with uncertainty meant that little could be gleaned from the situation to help managers with future decisions. This approach is adopted in this report focusing on risky decisions where managers have some assessment of the likelihood of possible future outcomes from a decision.

The standard textbook approach to risk and uncertainty in finance theory is based on variance, which is generally considered by decision makers to be of little practical value. Decisions that have a wide range of possible outcomes are seen as riskier than decisions where the spread of possible outcomes is relatively narrow. The statistical measure of dispersion of outcomes is the variance; it weights deviations from the average outcome by their likelihood of occurrence and is adopted in most texts on financial management and in most financial models as the usual measure of risk. This is demonstrated in Example 2.1.
However, surveys of practitioners in various parts of the world have suggested that managers do not regard variance as a helpful measure of risk; instead they consider only the downside of the distribution as risky, tend to concentrate on the analysis of worst outcomes and view risk as a multi-dimensional concept which is not easily captured by a single number; research question 2 examines whether UK managers adopt a similar perspective. ICAEW (1997) argued that there were two ways of considering the concept of risk; it suggested that a distinction could be made between:

[D]ownside risk- the risk that something can ‘go wrong’ and volatility risk – the risk associated with uncertainty which means that there is the opportunity for gain as well as the potential for loss. (p.29.)

This alternative approach to risk draws on practical insights from the psychological literature and examines the role of risk in the managerial decision-making process where managers and financial analysts concentrate on downside risk rather than on the entire probability
distribution (March and Shapira, 1987). The psychological approach to risk also draws on the notion commonly adopted in the management literature in which, say, technological risk and marketing risk are treated as distinct and identifiable sub-categories of company risk (Lonie et al, 1993); managers appear to be more comfortable with this view.

**Contribution of psychology**

The psychological approach to risk draws upon the notion of ‘loss-aversion’ (Kahneman and Tversky, 1979) that manifests itself in the related notion of ‘regret’. It suggests that decision makers tend to follow simple rules of thumb when evaluating risky situations. These heuristics may generate identifiable bias in the decision-making process. Psychological research has also acknowledged that a manager’s attitude to risk taking is likely to be modified by the recent performance of their decisions relative to some critical reference point such as a success or survival target (March and Shapira, 1987). It suggests that managers will often see risk as a multi-dimensional concept which cannot meaningfully be reduced to a single quantitative surrogate (Alderfer and Bierman, 1970; March and Shapira, 1987) and tend to utilise an array of risk measures to assist them in their decision-making processes.

Kahneman and Tversky (1979, 1981, 1982, 1984) and Tversky and Kahneman (1981, 1983, 1986, 1991, 1992) have examined these notions more formally in their development of prospect theory. This theory separates the decision choice process into two stages; in the first stage the menu of available choices is framed and edited in accordance with the decision maker’s prior perceptions; in the second stage these prospects are evaluated in relation to the decision maker’s subjective assessment of their likelihood of occurrence. The prospect with the highest expected outcome is selected.

Kahneman and Tversky developed their theory by first examining the preferences of individuals for sure outcomes over risky prospects involving a gamble with positive outcomes. They gave the example of a choice between (i) a sure gain of say $2,000 and (ii) a gamble that offered some probability of a larger gain, say $10,000, and a probability
of no gain at all. When faced with this choice, they found that most individuals were risk averse and chose the certain sum. They then considered risky prospects that involved both positive and negative outcomes. They suggested that the pleasure of winning a certain amount of money was much less intense than the pain of losing the same sum of money; individuals were again risk averse. Accordingly, people only accepted a gamble with an even chance of a gain or loss where the possible gain was substantially greater than the possible loss. For example, they cited a gamble where a majority of decision makers considered a 50% chance to lose $100 was unacceptable unless it was matched with a 50% chance to gain $200.

**Empirical evidence on risk perceptions and loss avoidance**

**Negative outcomes**

Analyses of managerial attitudes to risk, as summarised by March and Shapira (1987), found that managers did not consider uncertainty about positive outcomes as ‘risky’; 80% of respondents associated risk only with negative outcomes. Risk was not strongly related to the probabilities of different outcomes. Rather, 54% of those interviewed thought that risk was associated with the magnitude of any possible negative outcomes rather than the dispersion of possible outcomes; the responses of managers suggested that they might reject a risky project even though it had a positive expected net present value (NPV) if there was a tiny chance that the project might result in a large negative NPV outcome which could conceivably endanger the survival of the firm. Further, 42% of managers viewed risk as a multi-faceted concept encompassing a variety of different types of risk – operational, financial, marketing, etc – and suggested that it could not be usefully condensed into a single figure such as the standard deviation.
Active v Passive approach to risk

The findings summarised in March and Shapira (1987) confirmed the earlier results of MacCrimmon and Wehrung (1986). These researchers conducted interviews with 509 managers who were mainly Canadian and American. They found that managers associated the term risk with the exposure to injury or loss and that risky situations often exhibited a lack of control, a lack of information and a lack of time. The risk factors examined included threats from producers and suppliers, the volatility of financial markets, the possibility of changes in government regulation, uncertainty in the economic environment, labour unrest, technological innovation, management inexperience and insufficient management resources. They found that managers adopted two different approaches to the management of risk - an active and a passive approach. With the passive approach, managers selected only from the alternatives that were available to them. Under the active approach, managers tried to adjust the components of the risky situation by gaining time, gathering more information or increasing their control over the decision.

Cost of information

However, the choice of adopting an active stance was not costless, and the cost of risk reduction had to be measured against the risk reduction itself. March (1987) recognised that there were costs associated with gathering, organising and retrieving information. He advised that managers should not pay good money for bad data and that a question should not be asked if the answer was already known. Often there was a conflict of interest between having too much information and too little data and the information providers had to try to shape the decisions through the ‘judicious’ management of information under their control. He suggested that information providers should seek to understand the questions of decision makers and design the system for the users’ needs. For example, if users only understood pie charts and not regression equations, then they should be given pie charts.
Risk takers and risk avoiders

MacCrimmon and Wehrung identified two groups of managers: risk takers; and risk avoiders. The risk takers tolerated projects with larger losses and a greater variability in the outcome payoffs; in addition they accepted projects where they had less control over the outcomes. They also under rated the degree of risk involved in a problem and did not try to modify components of a risky decision. They tended to be younger, wealthier, had no dependants and were senior managers in aggressive sales-orientated companies. In contrast, the risk avoiders worked in large organisations and had been with their companies for a relatively long period of time. Individual characteristics such as personality and circumstances were therefore important. Nationality and education also appeared to influence attitudes to risk as MacCrimmon and Wehrung found that Canadian managers with a lower educational background were greater risk takers than all the other American and Canadian managers interviewed in their study.

Practical implications of prospect theory

In a more recent study, Sullivan (1993) investigated the practical implications of prospect theory. She obtained the views of 72 corporate financial managers who worked in small- to medium-sized companies in the Boston area of the US and found that, across a variety of investment choices, the managers displayed a tendency towards risk avoidance. However, where the choice involved financial losses or performance that was well below a reference point, then the managers exhibited some risk-taking behaviour. She also discovered that attitudes to risk were influenced by the context of the decision choice. When alternatives were presented in terms of gains, managers tended to avoid risk but if the problem was presented in terms of losses the managers became bolder in their decision choices. Information about prior outcomes affected decisions, with news of recent prior losses lowering a manager’s willingness to undertake a similar risky decision in the future. Behaviour was also influenced by the joint consideration of current and future
levels of performance. Finally, she documented that, although managers became risk seeking when the company was facing certain losses, they switched to being risk averse if these losses were potentially ruinous and might endanger the survival of the firm. Research question 5 seeks to examine this area in more detail.

Shapira (1995) reports on interviews with 50 managers and responses to a questionnaire sent to 656 managers. He concluded managers take an educated guess of what is likely to happen and what could be done to remedy a negative outcome. Shapira found managers did not focus on the risk at just one point in time but considered the many things that could go wrong across different time periods. They considered a number of ways to change a course of action that was leading to an undesirable outcome and remedy a bad decision. Managers generally edited outcomes into a few alternatives and examined the worst of these. If this worst option was not an acceptable alternative, the risk proposal would be dropped.

Other factors

Sutherland (1992) summarises many of these findings; his book is written in a way to appeal to the non-academic and includes several real-life situations that illustrate the biases that individuals can unknowingly exhibit when taking decisions. He provides some good advice on how to avoid making inappropriate decisions including:

• never base a judgment on a single case;
• always suspend judgment until the end;
• avoid obtaining information that will bias the decision;
• do not pay more attention to tradition than to making the right decision;
• do not refuse to look for, or to believe, contradictory evidence (citing the example of Pearl Harbor);
• positive information is more persuasive than negative information; and
• information given about something implausible will often be given more credence if told at the same time as something that is plausible.
The large number of investigations in this area have found that attitudes to risk do not remain constant across different strata of the organisation. Instead, they vary according to a number of factors that are examined below.

**Impact of individual characteristics and culture on attitudes to risk**

A number of individual traits and aspects of culture are thought to have an impact on attitudes to risk and these are examined in research question 3:

- *Individuals' age and seniority in the firm.* The youngest and the most senior managers take greater risks than their other colleagues. Older managers often have greater resources at their disposal and are willing to take greater risks.

- *Past success and reputation.* These factors result in higher aspiration levels and a greater preference for taking risks. Successful investment decisions are likely to enhance the personal reputations of the risk takers as well as the reputation of the company as a high-performance enterprise. (Obsession with reputation may, however, result in over-investment, under-investment or misguided investment, depending on circumstances).

- *Tiredness and mood swings.* Tiredness and being anxious increases the preference for a risky option; a positive mood increases risk taking in positive outcome situations but a negative frame of mind increases risk taking in negative outcome situations. (Individuals themselves tend to be unaware of any change in their decision making associated with variations in mood.)

- *Personal wealth and fortune.* Managers who have amassed or inherited a great deal of wealth have higher aspiration levels, greater confidence and less concern for adverse outcomes; because of these attributes they tend to take greater risks.

- *Expert knowledge.* Expertise increases a manager's confidence in a decision. Individuals prefer to make a decision about a topic where they believe that success is due to their own competence while
failure is attributable to chance. However, where managers have no detailed knowledge of a topic, and failure may be due to their ignorance and success may occur because of chance, risk-averse behaviour tends to dominate.

- **National culture.** The nationality of decision makers affects their attitude to risk. For example, Dutch managers place greater emphasis on the magnitude of potentially ruinous losses than their German counterparts.

### Impact of organisational factors on attitudes

A number of organisational features have also been advanced to explain attitudes to risk:

- **Performance of the managers’ division in relation to their company’s budgets or any specific targets.** If they are below target, managers adopt bolder, riskier decisions, whereas if they are above target, managers tend to be more risk averse.

- **Performance-related pay and participation in an equity incentive scheme.** These factors help to align the interests of the managers with those of the shareholders but make managers more risk averse since any actions that may have a negative effect on share values will adversely affect their wealth. However, managers take greater risks when their pay is expected to fall due to poor performance.

- **Organisational characteristics.** Risk behaviour may depend upon whether (i) the outcomes of risky decisions are rewarded or punished and (ii) whether the outcomes or the processes are rewarded. If the process is rewarded it gives the decision an aura of legitimacy which lowers the perceived risk of the decision. If the outcome is rewarded, a perception of high risk ensues as the outcome could result in either a large reward or a punishment.

- **Team and group decisions.** These often result in riskier alternatives being selected, but the commitment of the managers also increases which improves the likelihood that the riskier outcome will be achieved.
• **Phase of the business cycle.** At the trough of the cycle, cautious managers over emphasise the financial aspects of a problem, but in a boom managers tend to focus on the risk of not investing and therefore adopt a more bullish risk-seeking stance.

• **Organisational setting.** Risk taking is more common in certain industries, such as the computer industry, than in others and attitudes to risk within a sector tends to be influenced by the level of innovative technology employed within that sector.

• **Threats to the survival of the firm.** The risks that are taken in special situations such as catastrophes when the survival of whole areas of an industry may be under threat (Argenti, 1981; Shleifer and Vishny, 1992; Jarrett, 1990) may be different from those taken in more normal settings. Firms in decline may shy away from innovation and concentrate on quick short-term responses rather than riskier longer-term projects; this choice may speed up the process of decline and result in managers being risk averse.

According to the literature in this area, therefore, it appears a large number of factors influence attitudes to risk and only a small proportion of these are captured by statistical measures such as standard deviation.

**Do decision characteristics affect attitudes to risk?**

In practice, decisions are usually taken in a dynamic environment, and when individuals are faced with a multiplicity of decisions, empirical evidence suggests that interdependencies may be overlooked since problems may be treated as unique, past outcomes are neglected and the possibility of ‘pooling’ risks ignored; these oversights may result in ‘timid decisions’ being taken (Kahneman and Lovallo, 1993). If individuals consider a portfolio of decisions together, then bolder choices may be made. Certain characteristics of the decision problem may influence the decision choice made as examined in research question 4.

• **Linkage problem.** Individuals sometimes link unrelated decisions or fail to notice links that do exist between decisions - the so-called ‘conjunction’ problem. This conjunction problem may result in
irrational decisions. For example, if, in a game of roulette, the ball has landed on red on several previous occasions, many people prefer to bet on black, failing to recognise that there is still an equal chance that the colour will be red or black; because of this ‘conjunction fallacy’ individuals link events which are unrelated and ‘incorrect’ decisions may be taken.

- A surfeit of information. This may result in managers concentrating on the wrong issues, as a large amount of information on one topic may divert attention away from other more important attributes of the decision under consideration.

- Inattention to probabilities. Individuals usually attach a great deal of importance to monetary values, ignoring the probabilities associated with these values; this emphasis may lead to incorrect decisions being made.

- Avoidance of extreme outcomes. Decision makers frequently avoid extreme outcomes and tend not to choose either the largest or smallest expected value option. There is a tendency to select an option in the middle of a range of possibilities, regardless of the extent of the range of choices available. The introduction of a new and riskier option may persuade managers to choose an intermediate option which is different from, and riskier than, a previous choice.

It appears that attitudes to risk are affected by a number of different factors that may all have different influences upon the risk-taking preferences of managers, only some of which are captured by the textbook emphasis on standard deviation and variance.

Role of regret

All the literature in this area has considered the decision situation, but a relatively recent development in psychological studies on risk examines the role of regret that decision makers may experience after a wrong decision is made (Bell, 1982, Baron, 1988); this regret may be larger for unconventional decisions than for routine ones (De Bondt and Thaler, 1995). Zeelenberg et al, (1996) suggest that decision makers try
to minimise regret rather than minimise risk. Indeed, if they have no prior expectations about a decision outcome they may not be able to compare the actual outcome from a decision with some pre-determined target and therefore may not experience any regret about an adverse outcome. In practice, regret may not arise for options that are not pursued since there is usually only feedback available on the alternative that was selected. A study of 26 US engineering firms by Steil (1993) looked at the use of options to minimise foreign exchange rate risk. He found managers tended not to use probabilities but based their hedging strategy on the likely regret they would have experienced if an adverse currency movement had taken place. He noted the regret associated with a failure to act was often less than the regret associated with the failure of an action.

**Short-term versus long-term consequences**

The substantive literature concentrates on gains and losses and the circumstances that might affect individuals risk preferences. However some decisions might be viewed either as: opportunities or threats; or gains and losses. The approach of the decision taker might be very different in these two contrasting scenarios (Highhouse and Yuce, 1996).

The first approach emphasises the strategic dimension of outcomes that might arise, while the second approach concentrates on the financial consequences of any decision made. In other words, opportunities and threats normally arise in a long-run context in which priority is awarded to considerations such as market share, in which decisions tend to be based on a relatively broad and dynamic information set and in which inter-temporal linkages assume importance. Decisions based on gains and losses tend to have a short-term focus and are usually based on accounting data. A risky decision might involve the possibility of a short-term financial loss but it might also include opportunities for longer-term strategic gains; even if the opportunity is only the avoidance of a loss managers may consider this possibility when making a decision.
Previous threats and opportunities may cause managers to interpret the same information very differently. A manager that has experienced opportunities in previous decisions may see an issue as more threatening than a manager who has only considered threats. The previous successes may cause these managers to have a higher reference point, resulting in them focusing on the downside threat and becoming more risk averse (Highhouse et al, 1996). If managers perceive little threat, there may be few pressures and hence little need to reduce uncertainty. If threats are significant then managers may actively search for alternative courses of action to try to reduce any potential dangers (Boynton et al, 1993).

Do managers attempt to manage risk and, if so, what methods do they use?

With organisations facing increased risks and uncertainties in their operations, many companies are seeking ways to try to manage these surprises and unplanned events. Evidence on this topic is sought in research question 6. Some managers believe they can manage risk by choosing appropriate strategies and implementing these strategies in an effective manner (Bussard and Doyle, 1996). In a study of MBA students, Shelley (1994) found managers believed they could manage the probabilities and influence the magnitudes of future negative outcomes. The study showed that delayed losses were less intimidating to decision makers than current losses and were, therefore, heavily discounted, resulting in an increase in the risk taking that occurred. Managers generally assumed they had a greater capacity to reduce risk than they actually had in practice. For example, March and Shapira (1987) found 75% of the managers in their sample saw risk as controllable. Most managers thought they could modify risks by obtaining more information or by attacking the problem from a different perspective.²

A final factor that may be relevant to the examination of risk is that of external stakeholders, and this is examined in research question 7.
Comments

What emerges from these studies is that it may be possible to derive explanations of managerial decision making in risky situations by combining insights derived from modern contributions to psychology with information about executive rewards and other factors. When managerial behaviour is systematic, and common to managers across industries and perhaps even across countries, what is essential is to identify and explain these patterns of behaviour rather than to dismiss them as irrational, or non-rational, aberrations from the standard of behaviour required by the neo-classical paradigm of finance (Tversky and Kahneman, 1991). This chapter has shown that the research questions highlighted in chapter one emerge naturally from the recent, mainly US-based literature on risk. Factors that may be relevant and will be examined in the next chapters are the personal and individual traits of the risk taker, contextual factors such as the organisational and national setting in which the decision maker operates and the characteristics of the decision itself. This research report investigates whether managers consider different types of risk, whether they focus mainly on loss aversion and whether their professional competence influences their risk-taking behaviour. It also examines whether managers group risk into different categories and whether their track records affect their risk preferences. Finally, the research report studies whether UK managers consider they can manage risk. The investigation in this research report provides an opportunity to test the validity of several of these psychological insights and to explore a number of related issues, namely whether managers’ belief in their capacity to manage risk is greater than their practical ability to do so.

Endnotes:

1 Interestingly, bankers were risk averse, apart from those involved in venture capital.
2 However, Tversky and Shafit (1992) argued that sometimes information is purchased that has no impact on the actual decision.
Chapter Three

The Research Method

This chapter summarises the detailed work carried out. The work can be split into two stages:

- interviews with 26 UK managers and three insolvency specialists were carried out from July 1997 to March 1999; and
- two questionnaire surveys of almost 1000 UK business managers were mailed in April 1998.

These two methods were employed for a number of reasons. First, it was considered interviews were needed to uncover the issues about attitudes to risk that were important for UK managers. Second, interviewees were required to determine whether examples and questions that had been highlighted in the mainly US literature were relevant in a UK context. Third, it was decided that any questions to be included in a postal questionnaire should be piloted in a series of interviews to examine whether all the questions were appropriate and could be understood easily by managers. Finally, a questionnaire was used to investigate whether any conclusions from the interviews could be generalisable to a larger sample of managers.

The remainder of this chapter describes the interviewees, outlines the interview process and introduces the reasons why two questionnaire surveys were undertaken. The two questionnaires are discussed and the sample selection described towards the end of this chapter.

Interviews

The research approach adopted in this study involved visits to eight organisations in the UK where three managers were typically interviewed. Summary details about these interviewees are provided
in Table 3.1. The companies in the sample were selected because they were located in different geographical areas, operated in a variety of industrial sectors and represented small, medium and large organisations. The sample was selected to represent a broad spectrum of organisations in the UK to ensure many different features were covered in the analysis. The findings of these interviews were also discussed with financial analysts to discern whether they regarded managers’ risk-taking preferences to be influenced by any external factors.
Table 3.1 summarises the background details about the managers who were interviewed in the study about their attitudes to risk. D is director, SM is senior manager, MM is middle manager and JM is junior manager.

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Company</th>
<th>Functional responsibility</th>
<th>Level of seniority</th>
<th>Company sector</th>
<th>Size of company</th>
<th>Location</th>
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<td>A</td>
<td>Sales and marketing</td>
<td>M M</td>
<td>Food</td>
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<td>H2</td>
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<tr>
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<td>Analyst</td>
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</table>
Within each firm, individuals of varying degrees of seniority who represented a wide range of functional responsibilities were interviewed. In addition, two fund managers were also selected to obtain the views of outsiders about the risk decisions of their investee firms.

Semi-structured questionnaires were used for these interviews and these lasted for approximately an hour. Each interview was conducted by two members of the research team and all were recorded; detailed notes were also taken. One member of the team attended all interviews to supply a common perspective on the interview responses and to facilitate a comparison between the different responses to the various questions asked. Each interviewee was sent a series of example problems and some questions before the interview and asked to hand the completed response to the researcher at the interview. These examples and questions were then used as the basis of the semi-structured questions in the interviews.

The tape-recorded reflections of the 26 UK managers interviewed yielded a wide variety of comments on their attitudes to risk and the management of risky decisions; they provided insights on company strategy, culture and many other aspects of corporate life that established a context for, and justification of, the various approaches to decision making that they adopted. There were several principal findings from the interviews, and these are discussed in the following empirical chapters.

Questionnaire surveys

Interviews with a relatively broad selection of UK managers and a small number of financial specialists provided an in-depth view of managerial risk taking in the UK. However, to examine whether the results from the interviews were typical of the views of UK managers as a whole, two large questionnaire surveys were undertaken. The questionnaires addressed the seven research questions outlined in chapter one. First, they investigated whether business managers recognised different types of risk associated with a given project (eg technological, marketing, distribution and financial risks based upon financial statement data) and therefore viewed several different aspects of risk which were
not readily encapsulated in a single measure such as the variance or the standard deviation of possible outcomes (Table 4.1). They also examined the risk perceptions of managers and, in particular, investigated whether managers considered some situations to be riskier than others (Table 4.2). Second, they sought to answer whether managers believed attitudes to risk varied according to their personal circumstances such as their seniority in the firm and whether managers considered reputation was an important influence on the decisions they made and whether the experience of prior successes and failures affected the choices made (Table 5.1). Third, they were designed to reveal the importance of organisational factors such as the culture of their organisation, the performance of their division relative to any budgets or targets, and the performance of the firm (Table 5.1).

Fourth, the questionnaires examined loss avoidance and ascertained whether managers selected the decision that would cause them the least regret, or whether they focused on the monetary value of decision outcomes (Table 6.1; Examples 6.4 and 6.5). The questionnaires also sought to answer whether the framing of a decision affected any decisions taken. They considered whether business people focused on downside risk rather than consider the entire distribution of outcomes, and, within the downside of the distribution, whether they tended to concentrate on particular points in the schedule, notably the worst possible outcome of the project (Example 6.1). Specifically, they examined whether marked differences in attitude emerged among managers as insolvency threatened (Example 6.2).

Fifth, they ascertained whether the decision situation itself was important and whether managers viewed decisions in isolation on a case-by-case basis, or whether prior results of related activities would influence their decision (Example 6.3). Sixth, they investigated whether managers considered that they were able to manage risk (Table 8.1). Finally, they considered whether managers considered any outside stakeholders to have any influence on the risky decisions taken within an organisation (Table 9.1).
Rationale for two questionnaire surveys

Two questionnaires were devised with the joint objectives of determining managers’ attitudes to risk and ascertaining whether UK managers’ perceptions of risk differed from the views which underlie the conventional probabilistic approaches to risk and uncertainty adopted in most finance textbooks. The orthodox approach is based on the variability of the range of possible outcomes which might arise in decision-making situations. The strategy of using two questionnaires was unusual but was selected for several reasons. First, it facilitated the testing of whether the context in which a question was placed influenced respondents’ views about risk. Second, the number of questions required was simply too large to be included in a single questionnaire that managers would have been prepared to answer. Third, it enabled a comparison of the findings with the results of the small number of North American and Israeli studies in which a similar approach had been adopted.

The first section of each questionnaire asked for background information about the respondent such as age, years worked within the organisation, qualifications and position within the firm, as well as details about the company, including size and sector. This background information was obtained to help an interpretation of the results and to provide a check on whether the respondents to the two questionnaires had similar occupational and personal profiles. The second section in both questionnaires focused on perceptions of risk and asked respondents to rank the riskiness of certain important decisions using a five-point Likert scale. The two questionnaires then became different.

Questionnaire A, which was seven pages in length, contained two additional sections. The third section posed different decision situations and asked respondents to select a choice from a range of outcomes. The fourth section gave three examples and examined managers’ attitudes to risk by requiring them to make decisions based on carefully constructed risk scenarios that were similar to those that had been employed in studies from other countries.

In Questionnaire B the third section included three risk scenario situations. The first was similar to a question in Questionnaire A except
that the outcomes were stated in terms of losses rather than gains. The fourth section investigated the manner in which respondents sought to manage risk while the final section examined the possible influence of stakeholders on the risky decisions that a company might take.

The two questionnaires therefore contained a large and varied number of questions. Some of the questions were open ended, while others required respondents to select an answer from a menu of available options. Certain questions employed Likert scales, whereas other questions involved scenarios where the respondent was required to make a decision. The questions included in the questionnaires were drawn from two main sources: the existing literature on the subject; and the preliminary findings of the interviews with company managers, analysts and insolvency practitioners. It was hoped, therefore, the responses to the questionnaires would facilitate a comparison with the results of previous studies in this area; in particular, in determining whether the findings of the interviews may be assumed to be representative of those of a wider group of UK managers drawn from a broad spectrum of commerce and industry.

Postal questionnaire sample

A stratified random sample² of 997 managers was identified for this study. 504 were sent questionnaire A, while 493 received questionnaire B. The sample was extracted from three separate sources; The Times 1000, The Institute of Chartered Accountants of Scotland (ICAS) membership directory and a sample selected by the Institute of Marketing from its membership list. From The Times 1000, managers were categorised according to their functional titles and a sample was then taken from these categories. This procedure ensured respondents worked in several different functional areas within the firm; one of the main conclusions of the interviews was that perceptions of risk varied according to the functional responsibility of the individual being interviewed. Accountants, treasurers, sales and marketing personnel, property, insurance and corporate managers were, therefore, selected to receive the two questionnaires.
In total, 997 questionnaires were posted in April 1998. A second mailing was sent out three weeks later to those who had not completed and returned their questionnaires. This second mailing included another copy of the questionnaire and a letter to be completed by the respondents if they did not intend to answer the questionnaire, outlining the reasons for their decision. The majority (62 managers) who returned this letter stated that they were too busy to fill in the questionnaire, while 51 respondents indicated that their companies had adopted a policy of not answering questionnaire surveys. A small number of those contacted had left the company or retired while some 37 respondents provided other reasons why they could not reply to the questions. These reasons included the fact that they lacked the necessary information because other individuals within the organisation took all of the risky decisions, or that they passed the questionnaire to someone else in their organisation.

An analysis of Table 3.2 reveals that 210 usable questionnaires were returned; 132 replied to questionnaire A and 78 responded to questionnaire B. This set of returns gives a usable response rate of 20.5%, which is fairly typical of the response rates for questionnaires on this type of topic.

Table 3.2 An analysis of respondents to the risk questionnaire

<table>
<thead>
<tr>
<th>Sample selected</th>
<th>Total</th>
<th>Replied</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate planning</td>
<td>40</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>Property</td>
<td>36</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>Human resources</td>
<td>80</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Insurance</td>
<td>48</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>Treasurers</td>
<td>80</td>
<td>33</td>
<td>41</td>
</tr>
<tr>
<td>ICAS members</td>
<td>132</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td>Marketing</td>
<td>88</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>504</strong></td>
<td><strong>132</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>
There was a wide variation in the response rates from the different groups. For example, 41% of treasurers responded to questionnaire A but only 9% of property managers returned questionnaire B. In general, the response rate to questionnaire B was lower than that for questionnaire A. This difference may be because questionnaire A contained a large number of example questions while questionnaire B contained a large number of Likert scale questions; the better response rate for questionnaire A may, therefore, reflect managers’ preference for looking at problems rather than ticking boxes.

An analysis of the respondents’ background profiles revealed a number of interesting characteristics. As expected, older managers were generally more senior in the organisational hierarchy and had been with their companies for longer periods of time than their younger counterparts. More surprisingly, however, most of the senior managers who completed the questionnaires appeared to work in smaller companies; perhaps senior managers in larger organisations had asked their subordinates to take part in the survey.
Comments

This chapter has described the methods used to gather information for this research report. Twenty-nine managers in a number of different organisations were interviewed to obtain an in-depth analysis of managerial risk-taking preferences. Two questionnaire surveys were also carried out to elicit the views of a wider range of managers working in the UK. The results of these two approaches are now reported in the following chapters.

______________________________

Endnotes:

1 These problems and questions were used as a pilot for the main questionnaire survey which was sent out after most of these interviews had been conducted and are examined in the following chapters.

2 The sample was stratified into different functional responsibilities as it was thought that there may be variations between respondents based on their background.

3 The option of sending a second questionnaire to the sales and marketing managers was not available as the Institute of Marketing agreed to send out only the initial mailing.

4 Tests were carried out for non-response bias but in virtually all instances these proved negative. The tests are available from the authors on request.
Chapter Four

Managerial Perceptions of Risk and Attitudes to Loss Avoidance

This chapter initially describes the results of two questionnaires about what risks appear to be important to managers. It proceeds by examining managers’ views on the definition of risk and their perceptions of risk. Finally, the results of semi-structured interviews with UK managers about their attitude to loss avoidance are presented.

Factors affecting risk

Research questions 1 and 2 examine managers’ perceptions of risk. Specifically, they investigate whether perceptions of risk vary between managers and whether managers’ concentrate on avoiding losses. The questions also consider whether risk is viewed as a single number or whether it is broken down into its different component parts. Several bodies have tried to split risk into a number of key categories. For example, the Turnbull Report (1999) states that the board of directors of a company should have regard to business, operational, financial, compliance and other risks (p.7). The report also emphasises that the board of directors should consider the following factors in their deliberation of risk and internal control:

- the nature and extent of the risks facing the company;
- the extent and categories of risk which it regards as acceptable for the company to bear;
- the likelihood of the risks concerned materialising;
- the company’s ability to reduce the incidence and impact on the business of risks that do materialise; and
• the costs of operating particular controls relative to the benefit thereby obtained in managing the related risks (p.6).

A more detailed listing of the specific risks that an organisation may face are noted in The Arthur Andersen Business Risk Model™ (as reproduced in ICAEW, 1997, Appendix II). This model groups risk under the three headings of: environment risk; process risk; and information for decision-making risk. However, certain risks may be of more concern to some managers than to others. Contextual factors and personal characteristics will affect awareness of, and interest in, particular risks. In addition, risk categories of interest to the firm and which are important to managers may change in importance over time. For example, the year 2000 bug caused many companies much anguish and expense over their exposure to risks arising from year 2000. Obviously, since 1 January 2000 the need for data on exposure to this risk has disappeared.

The remainder of this chapter is organised as follows. The next section seeks to identify from the questionnaire responses what categories of risk were seen as important by managers. The following sections continue this theme by describing interviewees’ thoughts on their definition of and perceptions of risk. The final empirical section reports on attitudes to loss aversion and considers whether managers associate this aversion with risk.

Which risk categories are important to managers?

To examine some of the risks managers generally think are important, the questionnaire elicited views on certain broad categories of risks, and these are reported in Table 4.1. The table is ordered according to the importance attached to a risk. Clearly, the risk of making a loss was foremost in managers’ minds and, while distributional risk was not as important, it was still rated as a significant risk by the managers in this study. In fact, all nine risks were rated of significant importance.
Table 4.1 Types of risk that managers considered

<table>
<thead>
<tr>
<th>On a scale of 1 to 5, how important are the following risks to you, when making a decision?</th>
<th>Mean</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of making a loss</td>
<td>1.52</td>
<td>0.65</td>
</tr>
<tr>
<td>Technological risk</td>
<td>2.15</td>
<td>0.89</td>
</tr>
<tr>
<td>Currency risk</td>
<td>2.27</td>
<td>1.06</td>
</tr>
<tr>
<td>Interest rate risk</td>
<td>2.30</td>
<td>0.97</td>
</tr>
<tr>
<td>Environmental risk</td>
<td>2.31</td>
<td>0.95</td>
</tr>
<tr>
<td>Marketing risk (e.g. brands, advertising etc)</td>
<td>2.32</td>
<td>0.95</td>
</tr>
<tr>
<td>Social risk</td>
<td>2.46</td>
<td>0.95</td>
</tr>
<tr>
<td>Commodity price risk</td>
<td>2.53</td>
<td>1.08</td>
</tr>
<tr>
<td>Distributional risk (e.g. moving materials and products around the globe)</td>
<td>2.75</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Note to table:** The table shows the mean responses from a five point scale where a 1 indicated importance and a 5 indicated unimportance. The dispersion shows how widely spread the mean responses were, with low measures indicating less dispersion.

Perhaps the most fundamental finding of this analysis, albeit one fully consistent with other studies which have surveyed business attitudes, is that the risk of making a loss was ranked as the most important by the majority of respondents; its average value of 1.52 was 0.63 less than the next lowest choice - technological risk. This result confirms the earlier surveys of MacCrimmon and Wehrung (1986), Shapira (1986), and Sullivan (1993) all of which suggested managers associate risk with the possibility of making losses rather than awarding an equal weighting to the upside and the downside of the outcome distribution.

**Interviewees’ thoughts about the definition of risk**

Although the managers believed the risk of making a loss was important, an analysis of the responses revealed there was some disagreement among different managers about the importance attached
Attitudes of UK Managers to Risk and Uncertainty

to other risks. For example, project finance managers did not factor marketing risk into their decisions, while sales and marketing personnel did not think about commodity price risk in their calculations. These results indicate that managers typically focus on the risks which are most relevant for their own functional specialism; marketing managers identified marketing risk as important while treasurers and financial managers concentrated on interest rate and currency risk. Not surprisingly, currency risk was thought to be more important for larger companies than for smaller ones, presumably because such firms had foreign subsidiaries and international sales. The importance attached to interest rate risk also varied according to company size, but in a less clear-cut fashion; this type of risk was emphasised by both large and small companies but not by companies with a turnover of between £100m and £1bn.

During the interviews, the risks mentioned by the managers were many and varied. For example, at company C, which operated in the drinks sector, a sales and marketing manager (C2) talked about risks in terms of people; he argued:

*The way that the City assesses risk is based on numbers; the ability to manipulate a spreadsheet is seen as important … . The biggest risk I take is employing people. We entrust a lot of responsibility to our staff. Every single deal we have is negotiated individually by sales representatives.*

The distribution manager (C3) in the same company described risk in terms of ‘not having enough storage capacity for the product’, while the finance director (C1) defined risk as ‘not hitting your market share and sales targets’. At company B, which operated in the pharmaceutical sector, the risk perspective interviewees focused on was also the one that most influenced their job. For example, B1 was concerned with the risk that each new proposal might fail to generate a positive NPV and cover the firm’s cost of capital of 10%. Interviewee B2, however was more interested in the risk that any new product would poison or kill a patient. Interviewee B3 considered the risk of launching a new product and ensuring that the new product would sell; when questioned about risk he focused on the uncertainty of obtaining a new licence to sell
a new product. Finally, the sales area manager (B4) talked about the risk of ‘taking on new people’. He argued ‘at the end of the day I have to bring in £14m and any new person I take on is responsible for £2m of that’.

In general, the risks mentioned could be categorised into four groups: finance-related risks; labour-related risks; strategic risks; and miscellaneous risks.

**Perceptions of risk**

One factor investigated in this study was whether contextual characteristics affected the riskiness of a situation and an individual’s preference for taking a risk.

Table 4.2 contains details of the responses to a question which asked managers to indicate, using a 5-point scale, their opinion about the riskiness of a number of decisions. The ordering of the items in the table shows the ranking from those situations with least risk to those with most risk.
### Table 4.2 Risk perceptions of risk situations of respondents

<table>
<thead>
<tr>
<th>Please indicate how risky any decisions you made would be in the following situations</th>
<th>Mean</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>The more information you have available that is relevant to a decision</td>
<td>2.16</td>
<td>0.56</td>
</tr>
<tr>
<td>The greater your ability to quantify possible outcomes from a decision</td>
<td>2.19</td>
<td>0.58</td>
</tr>
<tr>
<td>The greater the control you have over a situation</td>
<td>2.23</td>
<td>0.58</td>
</tr>
<tr>
<td>The greater your expertise about the factors involved in a risky situation</td>
<td>2.24</td>
<td>0.67</td>
</tr>
<tr>
<td>The greater your ability to consult colleagues about a decision</td>
<td>2.37</td>
<td>0.55</td>
</tr>
<tr>
<td>The more time you have to consider a decision</td>
<td>2.41</td>
<td>0.59</td>
</tr>
<tr>
<td>The fewer the number of product innovations in your industry</td>
<td>2.65</td>
<td>0.70</td>
</tr>
<tr>
<td>The greater your ability to share responsibility for a decision</td>
<td>2.92</td>
<td>0.55</td>
</tr>
<tr>
<td>The greater the extent to which you view a decision as a personal commitment</td>
<td>2.99</td>
<td>0.72</td>
</tr>
<tr>
<td>The greater the profit potential of a decision</td>
<td>3.48</td>
<td>0.72</td>
</tr>
<tr>
<td>The greater the ability of your competitors to respond quickly to any decision that you may take</td>
<td>3.51</td>
<td>0.72</td>
</tr>
<tr>
<td>The wider the range of outcomes (both positive and negative) that may result from a decision</td>
<td>3.76</td>
<td>0.84</td>
</tr>
<tr>
<td>The greater the possibility that a project may incur losses in the future</td>
<td>3.81</td>
<td>0.81</td>
</tr>
<tr>
<td>The greater the magnitude of any possible loss resulting from a decision</td>
<td>3.84</td>
<td>0.78</td>
</tr>
</tbody>
</table>

**Note to table:** The table shows the mean responses from a five point scale where A 1 indicates no risk and a 5 indicates very risky.
Only one of the 14 options provided in the survey was regarded by the respondents as not being associated with risk: managers believed the extent to which they viewed a decision as a personal commitment did not influence their views about the riskiness of a decision. In the other thirteen cases, the respondents believed the situations described either increased or decreased the risk of the decision. A number of factors were thought to increase risk, including:

- the range of outcomes that may result from a decision;
- the ability of competitors to react quickly to a decision;
- the possibility of a loss;
- the magnitude of any loss associated with a decision; and
- the greater the profit potential of a decision.

The first of these factors is closely associated with the conventional definition of risk based on the standard deviation of outcomes that appears in most textbooks. The second factor, however, indicates that in real-life situations managers appear to adopt a more strategic approach to the estimation of risk. From the point of view of this chapter, the third and fourth factors achieved the highest mean of scores of 3.81 and 3.84 respectively and suggest that the psychological definition of risk which stresses the downside of the probability distribution and highlights the importance of attitudes founded on loss aversion is consistent with the managerial views contained in the questionnaires.

Analysis of Table 4.2 also reveals that certain strategies could be employed which would reduce the risk associated with any given decision:

- gathering more information;
- quantifying possible outcomes;
- exercising more control over a situation;
- drawing on expertise;
- consulting with colleagues;
- taking more time to reach a decision;
- reducing the number of decisions to be made; and
- sharing responsibility for a decision.
Importance of avoiding losses

The interviews were used to obtain more in-depth information about the characteristics of a decision that contributed to the riskiness of that decision. A consistent finding of the interviews was loss aversion (or the closely related notion of regret) rather than risk aversion appeared to drive important managerial decisions. The avoidance of serious loss and, in particular, a potentially ruinous loss, influenced the strategy of all the companies whose managers were interviewed. For example C2 argued risk was ‘a decision that you could take where the consequences might be dire’. Virtually all the interviewees associated risk with the downside of the distribution of outcomes or the possibility that their decisions might result in losses. In particular, the size of potential losses resulting from a decision was a key input into their evaluation of the riskiness of that decision.

The semi-structured interviews also sought to establish whether regret about not taking a decision about an outcome that resulted from an unanticipated decision was an important feature of the decisions that they made. Most respondents admitted they did not consciously evaluate decisions in terms of any regret that might arise. Rather, they judged possible decision outcomes against the goals and objectives of the firm. The interviewees were also asked about whether regret for the failure of a routine decision or regret for the failure of a non-routine decision, both of which incurred the same loss, was greater. Some 70% of managers indicated they would experience greater regret at the failure of a routine decision, suggesting perhaps that established corporate procedures had become flawed. Some 20% were more concerned by the poor outcome of the non-routine decision, principally because unusual care and thought were likely to have been lavished on this decision. Finally, 10% were equally concerned at the failure of the two alternatives.
This chapter examined the risk perceptions’ of managers and their attitudes to loss avoidance. In answer to research question 1, managers seemed to consider all risks were important but the degree of importance varied depending upon the background to the decision as well as their personal circumstances and their organisation’s situation. Personal and organisational factors will be considered in the next chapter. The responses to research question 2 suggest the risk of making a loss was the most important criteria in managers’ decision-making processes. The conclusions from both the interviewees and the questionnaire analysis are that managers are typically cautious and focus on the downside of any decision, view different types of risk as important and associate the routineness of a decision or regret about the consequences of a decision with risk. Although some of the textbook notions of risk such as the dispersion of outcomes were viewed as important, the respondents’ perceptions were more closely aligned with the psychological definition of risk. Overall the most important finding of this chapter is that managers are essentially concerned about loss avoidance.
Chapter Five

Impact of Personal and Organisational Characteristics on Attitudes to Risk

Research question 3 sought to investigate whether the personal characteristics of a manager or the particular features of the organisation where the manager worked influenced attitudes to risk. Evidence from the literature survey in chapter two suggested managerial views on risk are relatively homogeneous within certain sectors such as the oil industry and the pharmaceutical industry (Howell and Jagel, 1997). In addition, personal details about a manager also appear to affect the decision choices made. This chapter investigates whether UK managers hold similar views to managers in other countries that have been reported in several academic studies.

Typical attitudes from an analysis of the questionnaires

The two questionnaires asked a number of questions about whether personal characteristics and/or organisational features influenced attitudes to risk

Factors influencing risk

The respondents’ views about these factors are outlined in the next section. First, the impact of a decision-maker’s circumstances or an organisation’s characteristics on attitudes to risk are set out in Table 5.1.
Table 5.1 The extent of risk taking in different circumstances

<table>
<thead>
<tr>
<th>On a scale of 1 to 5, in your opinion would a more risky or less risky decision be taken in the following situations?</th>
<th>Mean</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision maker is an extrovert with a high degree of self belief</td>
<td>1.79</td>
<td>0.74</td>
</tr>
<tr>
<td>Organisational culture emphasises the necessity for taking risks</td>
<td>2.08</td>
<td>0.83</td>
</tr>
<tr>
<td>There is a generous reward structure in the organisation</td>
<td>2.37</td>
<td>0.75</td>
</tr>
<tr>
<td>A large part of the reward structure includes equity options and bonus payments</td>
<td>2.38</td>
<td>0.83</td>
</tr>
<tr>
<td>Decision maker has a personal fortune largely independent of the organisation</td>
<td>2.50</td>
<td>0.89</td>
</tr>
<tr>
<td>Organisation is enjoying favourable economic circumstances</td>
<td>2.60</td>
<td>0.87</td>
</tr>
<tr>
<td>There is a strong likelihood that the target profit figure will not be met</td>
<td>2.77</td>
<td>0.95</td>
</tr>
<tr>
<td>There is a strong likelihood that profit forecasts will be surpassed</td>
<td>2.83</td>
<td>0.93</td>
</tr>
<tr>
<td>Previous decisions of a similar nature have been successful</td>
<td>2.83</td>
<td>1.05</td>
</tr>
<tr>
<td>Decision maker is a senior executive and has a high salary level in the organisation compared with that of the average decision maker</td>
<td>2.91</td>
<td>0.83</td>
</tr>
<tr>
<td>Previous decisions of a similar nature have been unsuccessful</td>
<td>3.03</td>
<td>1.20</td>
</tr>
<tr>
<td>Economy is in recession</td>
<td>3.12</td>
<td>1.00</td>
</tr>
<tr>
<td>Organisation is a follower rather than a leader</td>
<td>3.43</td>
<td>1.00</td>
</tr>
<tr>
<td>Decision is being made by a group rather than by a single individual</td>
<td>3.54</td>
<td>0.83</td>
</tr>
<tr>
<td>A large degree of formal monitoring and evaluation of performance is undertaken by the organisation</td>
<td>3.72</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Note to table: The table shows the mean responses from a five point scale where a 1 indicated more risky and a 5 indicated less risky.
The first ten factors were thought to increase the likelihood that a riskier decision would be taken. In contrast, the last three factors were believed to lead to a less risky decision being made. Three items, including an above-average salary of a senior manager, the similarity of this decision and previous unsuccessful decisions and the existence of a recession were not thought to have a statistically significant influence on the riskiness of the decision taken. The evidence in this table suggests managers view the following situations where riskier decisions will inevitably tend to be taken:

- decision maker is an extrovert;
- the organisational culture emphasises risk taking;
- there is a generous reward structure;
- equity options and bonus payment comprise a large part of the reward structure;
- the decision maker is wealthy;
- the organisation is enjoying a favourable economic environment;
- profit forecasts will probably be surpassed; and
- previous, similar, decisions have been successful.

In contrast, group decisions that are formally monitored and evaluated in a ‘follower’ organisation are thought to be less risky in character such as:

- there is a large degree of formal monitoring and evaluation;
- decisions are made by a group not individuals; and
- the organisation is a follower rather than a leader.

The overall conclusion from this analysis is that individual circumstances as well as organisational characteristics are regarded as important elements in determining the riskiness of any decisions made. Most of these elements are missing from the classical treatment of risk expounded in finance textbooks but are usually considered when psychological approaches to risk are being examined.
Personal characteristics

A more detailed analysis of the responses of the questionnaire returns highlighted a number of patterns in the answers provided for the questions asked.

**Seniority**

Level of seniority was an important factor that coloured managers’ attitudes to risk. Junior managers tended to have slightly different views on risk from their more senior colleagues. They believed if the manager was likely to meet profit forecasts or was a wealthy individual then a riskier decision would be made. They may have seen their senior, highly-paid colleagues taking important decisions which were associated with the position of seniority in the company rather than the level of wealth *per se*. In contrast to other managers, junior managers thought a history of unsuccessful previous decisions would lead to riskier decisions being taken, but that a history of successful decisions in the past would result in less risky alternatives being selected.

Middle managers, rather than senior managers, displayed more regret if an unusual decision did not turn out as expected. Perhaps these managers made far fewer unusual decisions and invested more time and energy in ensuring an unusual decision would lead to the desired outcome; hence they may have felt more regret about its failure.

Despite being bolder in their risk choices, senior managers were more likely to choose the safe option if the magnitude of any loss was likely to affect the long-run survival of the firm. However, more junior staff, or those who had been in the organisation for only a short length of time, were more likely to choose an alternative that had a medium-sized loss; they were not put off by possible losses.

**Tenure**

Managers’ tenure with their company influenced the importance they attached to technology risk; perhaps longer serving managers had seen
their businesses change over the years and were, therefore, more aware of the need to keep up with the latest developments in technology. Newly-appointed managers also tended not to have any strong views on the issues examined in the questionnaire and often tended to opt for the neutral alternative. One exception to this general conclusion concerned their attitudes to risk reduction strategies; they thought sharing responsibility for a decision or the static nature of an organisation helped reduce any risk in a decision.

**Functional responsibilities within the firm**

Not surprisingly, respondents identified risk by reference to the functional area in which they operated, such as marketing risk or the risk of changing brand names rather than to probability distributions, as noted in chapter four.

The finding that managers generally viewed risk in functional terms rather than in terms of probabilistic calculus is neither novel nor surprising (MacCrimmon and Wehrung, 1986; Shapira, 1986). However the idea that managers focus on only a small part of the risk which their firms face has yet to be recognised in financial textbooks where risk is viewed as a single dimensional concept that can be captured by a measure such as the standard deviation.

One noticeable feature of the analysis was the differences between the various functional groups of managers. Risk perceptions varied across different management groups; sales managers, project finance specialists and general managers did not think that either the ability of competitors to respond or the profit potential of a decision influenced their view of risk to the same extent as it affected the perceptions of other functional managers. These managers may have been more accustomed to strategic decision making or more comfortable with innovative ideas and were, therefore, not influenced by these factors.

When analysing responses according to personal details and functional backgrounds certain groups of staff emerged as having views which were very different from those of colleagues in other areas. For example, treasury staff did not believe that a generous reward structure made decision making more risky. This perception may have arisen because treasury
staff are often located in cost centres and do not share in the generous bonus payments available to other staff in their organisations. Sales managers indicated a riskier decision would be taken if the economy was in recession or if profit forecasts were not likely to be surpassed. Treasury staff and insurance managers did not think monitoring and evaluation by the company or being in a follower organisation would lead to less risky decisions being taken. Sales, treasury and production managers did not think team discussions would lead to less risky decisions being taken. The roles of sales and treasury staff may be different from those of other managers in their organisations and this may explain their different perceptions of risk; they possibly encounter risk more frequently and this familiarity colours their views.

The responses of treasury staff to the scenarios provided in the questionnaires suggests these individuals seemed to be more familiar with the use of probabilities and more able to calculate expected values. The framing of a decision did not influence their decision choice and related decisions were grouped together rather than viewed in isolation. In these respects their approach to decision making corresponded more closely with the textbook view than the approaches of other decision makers in the organisation.

General managers had distinctive responses to the questions that looked at the impact of regret and past experience on decisions. In addition, the routine nature of a decision, the number of options available and the transparency of any decision outcomes had less influence on their risk choices than on the choices of other managers who answered the questionnaire. General managers were the only group that indicated they did not consider gains and losses, but did consider opportunities and threats in decision making. These managers may have concentrated on strategic decisions and were more concerned with the potential opportunities and threats their firms faced. General managers, as well as older managers, were less likely to look at a decision in isolation, perhaps because of their more extensive experience; the managers in the biggest companies were more likely to take decisions in isolation. General managers agreed more strongly that team decisions would lead to less risky decisions; maybe these managers were used to board and committee meetings where suggested ideas are debated until a consensus is agreed. Perhaps more surprising is
the fact that general managers indicated they would not use derivatives to manage risk, and this finding may explain why a large number of organisations do not use these financial products. In contrast property managers did factor past losses into their decision calculations and were less likely to shorten their decision horizons when faced with risky situations. These findings are not unexpected since property management tends to involve long-term decisions.

Those respondents who had responsibility for insurance believed that they worked in a higher than average risk business, which is possibly why those organisations employed insurance specialists. Managers who stated their companies were in the highest risk category tended to work in the ‘other’ sector that included utilities and mining and extraction companies. A majority of property and marketing specialists worked in the retail and consumer products area while sales marketing and production managers were employed in smaller organisations. Younger managers tended to have both an academic degree and belonged to a professional body but older managers were generally only members of a professional association.

**Industrial sector**

In addition to the variations in responses according to the functional specialisation of the manager, there were also differences in the answers of managers from different business sectors. Managers from most sectors had similar views on risk; the only exception to this generalisation concerned the financial sector where managers rated financial risks such as interest rate risk more highly than managers in other industries and where they were less concerned about whether a decision might lead to financial failure; the managers in financial institutions may have been more experienced in dealing with financially distressed companies. Managers from the capital goods sector did not consider social risk to be an important input into their decisions and did not believe an increase in the time span available to evaluate the various options would result in a less risky alternative being selected.
Common themes from the interviews

The questionnaire responses largely mirrored the views of the 29 managers interviewed for this study. The interviewees, however, provided a richer set of data and allowed the interviewers to probe responses by asking follow-up questions. Based on the answers to these questions, a number of additional points can be made.

Professional competence

The senior managers accepted that risk taking was an integral part of their job but in general believed their professional competence enabled them to accept this role with a measure of equanimity. The sales and marketing manager in company C (C2) pointed out:

*It is essential you take risks … . It is a bit like skiing - unless you fall over, you are not really trying, especially in the current environment where you are expected to return a minimum of 7% better than the last year; you have to take risks.*

Interviewee G1 stated:

*It is clearly part of your job. I can’t think of a day gone by when I haven’t taken a risk judgment on a situation.*

This view was especially pronounced in the responses of the senior managers interviewed. Both the scale and frequency of risks taken increased as managers were promoted up the organisational hierarchy. Many of the junior managers interviewed believed they had neither the authority nor the duty to take major risks on behalf of the company.

Organisational culture

The issue of whether the culture of a particular firm influences managerial attitudes to risk was examined in this study. The interviewees had clear views about the importance of organisational culture in moulding
individual managers’ responses to risky scenarios. The importance of the organisational culture has been emphasised elsewhere:

*Enterprises in the same industry, facing similar risks, will often choose different risk management actions because different managements have different risk strategies, objectives and tolerances (p2). … [R]isk and its management are individual to each enterprise. (ICAEW, 1997, p.3)*

The interviewees agreed with this point of view. In particular, they believed a manager’s capacity for taking risks, or their tolerance of risk taking in others, depended to a large extent on the track record of the individual concerned, although the measure of discretion afforded was inevitably constrained by the corporate strategy and the corporate culture. Some 88% of the managers interviewed believed the culture of the organisation played a crucial role in the risks which managers were willing to take.

According to Schein (1992), the essence of culture is indoctrination in ‘the correct way to perceive, think about and feel in relation to problems’. From a corporate perspective, a decision made in the ‘correct way’ is one that reflects the beliefs of the chief executive of the company (Nixon, 1987) and which determines the collective perceptions as well as the preferences of the managers responsible for risky decisions. The managing director of a subsidiary of company E volunteered the opinion that his attitudes to actual and perceived company operations involving risk were shaped by the strategies and priorities of the group. In his previous job (from which he had been headhunted by his present employers) he made decisions within a very different culture. In each context, the decisions emerged quite naturally from established procedures.

**Track record**

In addition to organisational culture, the interviewees thought risk-taking attitudes depended on the track record of the individual concerned – a result that was hardly surprising. Recent evidence about ‘project champions’ indicates these individuals are selected to manage unusually risky ventures for the company because of their in-depth knowledge of the operation of the various aspects of their organisation’s activities
and because of their expertise. For example, Lonie et al (1993) found individuals who had repeated successes and tremendous self-belief in their abilities were encouraged to lead projects that would be considered too risky for many other managers in the company. The role of experience in guiding managers’ decision choices was seen as important by all but one of the interviewees. As E2 stated:

*If you employ a process to reach a decision and that decision is a success, you are more likely to adopt that process again.*

Interviewee A1 suggested a track record of making successful decisions in the past increased the freedom allowed to make risky decisions in the future. He commented:

*If a person has a good track record it is very persuasive. If the person says that they have covered a risk then people will accept this assurance.*

**Size and riskiness of the company’s business**

In addition to culture and experience, the size and riskiness of an organisation affected managers’ responses to the questionnaire survey conducted. For example, managers in larger firms were less risk averse in some of the scenarios and less likely to set up a team to evaluate risky options than their smaller company counterparts. Managers who worked in higher risk industries were more equally split between the risk averse and risk seeking choices available in Example A (see chapter six). Managers in higher risk companies may need to make different decisions from the majority of managers in other organisations. Higher risk businesses also thought commodity price risk was important. This may be due to the fact that the higher risk companies operate in the utility, mineral and extraction sectors where oil, coal and metal prices are important inputs into their operational activities.
Comments

This chapter has uncovered evidence that answers research question 3 and has highlighted that personal attributes and organisational characteristics are important to the decision-making process. What emerges from this analysis is that a constellation of factors influence attitudes to risk. Company size, industry, seniority in the organisation and position in the firm all come together to shape the individual managers’ responses to different risky decision scenarios. The respondents seemed sceptical that all these influences can be captured by the textbook notion of risk (volatility) or by one measure of risk (standard deviation). Most managers have a narrow definition of risk that is related to their area of responsibility within the firm. Their definition of risk could often be classified into four main categories: finance-related risks; labour-related risks; strategic risks; and miscellaneous risks. They also seemed to accept that someone within the company needed to take a more holistic view of the risks that the firm faced and believed this role was the responsibility of senior managers. Awareness of risk, however, seemed to vary across sectors with some managers in mature industries being aware that risk was less of a concern for them than for other managers in faster-growing sectors.

Endnote

1 See Helliar (1997).
This chapter examines whether managers believe that the circumstances surrounding a decision influence their attitudes to risk. Initially questions are posed about whether a decision is couched in terms of gains or losses. Subsequent questions seek to examine whether decision makers try to recover past losses, experience regret and are influenced by a range of choices. A number of scenarios are then posed to check whether the framing of a decision or the potential for financial distress may affect attitudes to risk. Finally, the scenarios test whether individuals ignore joint decisions, focus on the magnitude of losses and are insensitive to the probability of various outcomes when taking a decision.

Decision situation affecting risk attitudes

Research question 4 concerned the choices that managers would make in certain risky scenarios and whether the decision situation affected attitudes to risk. The situations considered include whether:

- a decision has a strategic dimension;
- a decision is linked to previous poor outcomes; and
- the availability of alternatives affects the decision choice.

In addition, scenarios are put forward to test whether the framing of a decision in terms of positive or negative outcomes and the possibility of losses might influence the actions of managers. This examination took place with the help of the two questionnaires. The first questionnaire posed a number of problems where the respondents had to examine the information and then choose from the alternative courses of action.
available. Table 6.1 outlines the responses to a number of closed-end questions about the nature of the risks being considered, the influence of past losses and the impact of ‘regret’ on risky decisions. These questions were only included in the first questionnaire and so the sample size is smaller than the samples analysed in the previous tables.

An analysis of the results indicated that the vast majority of respondents paid regard to gains and losses as well as evaluating opportunities and threats; they considered both the financial and the strategic dimensions of risk in the decisions. Consistent with rational economic decision-making procedures, a sizeable percentage of managers ignored past losses when making a subsequent decision and did not attempt to recoup these losses by seeking compensation in their next project (Panel A).

**Table 6.1 Decision situations that influence risk**

**Panel A**

<table>
<thead>
<tr>
<th>Many decisions can be thought of in terms of financial gains and/or losses or strategic opportunities. Do you consider either in your decision making?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gains and losses</td>
<td>129</td>
<td>3</td>
</tr>
<tr>
<td>Opportunities and threats</td>
<td>125</td>
<td>7</td>
</tr>
<tr>
<td>If an earlier phase of a project had incurred a loss, would your decision to proceed with the current phase depend on the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recouping past losses from a previous phase</td>
<td>28</td>
<td>98</td>
</tr>
<tr>
<td>Ignoring past losses and concentrating on the current target</td>
<td>108</td>
<td>19</td>
</tr>
</tbody>
</table>
**Panel B**

Suppose two projects had the same risk but one was a routine decision and the other was unusual. If both projects were accepted but both incurred losses, would you feel any more regret about one or other of the outcomes?

<table>
<thead>
<tr>
<th>Regret the unusual decision the most</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>11.4</td>
</tr>
<tr>
<td>Regret the routine decision the most</td>
<td>44</td>
<td>33.6</td>
</tr>
<tr>
<td>Regret both decisions the same</td>
<td>72</td>
<td>55.0</td>
</tr>
</tbody>
</table>

**Panel C**

If you had a range of project choices would you (assuming all met the hurdle rate):

<table>
<thead>
<tr>
<th>Choose the lowest risk, least profitable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>6.6</td>
</tr>
<tr>
<td>Choose an intermediate alternative</td>
<td>96</td>
<td>80.1</td>
</tr>
<tr>
<td>Highest risk, most profitable</td>
<td>16</td>
<td>13.3</td>
</tr>
</tbody>
</table>

**Panel D**

Projects A and B have low risks and low payoffs  
Projects C and D have high risks and high payoffs  
Projects A and C will be closely monitored while projects B and D will not. Which pair of projects would you choose?

<table>
<thead>
<tr>
<th>Choose the pair of projects</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A and C</td>
<td>102</td>
<td>81.6</td>
</tr>
<tr>
<td>B and C</td>
<td>6</td>
<td>4.8</td>
</tr>
<tr>
<td>A and D</td>
<td>6</td>
<td>4.8</td>
</tr>
<tr>
<td>B and D</td>
<td>11</td>
<td>8.8</td>
</tr>
</tbody>
</table>
They regretted identical adverse outcomes arising from both routine and unusual decisions more or less equally with 72 of 131 respondents selecting this option and 44 of the 131 stating that they would regret the routine decision most (Panel B). The managers also tended to select a middle option when three or more scenarios were presented to them with 96 out of 120 replies selecting this course of action and 16 of the 120 selecting the high-risk option (Panel C). In the interviews over 80% of the managers chose the middle option with the rest choosing the high-risk alternative.

The final result shows that managers preferred situations where their decisions were transparent to other members of the organisation and did not like situations where decision-making processes are not readily observable by their colleagues (Panel D).

Examples of risk scenarios

In Section C of the first questionnaire and Section D of the second questionnaire, respondents were presented with a number of scenarios and asked to make a decision on the basis of the information provided. The results from this analysis confirm the findings of earlier psychological studies on risk.

Framing effect

The first scenario (Example 6.1) was included in both questionnaires and managers were told their company was facing an expected cash loss of £600,000 for the next quarter. The group who received the first questionnaire (Example 6.1A) were then asked to choose between a gain of £200,000 for certain or to select the alternative where they had a one-third probability of gaining £600,000 and a two-third probability of gaining nothing. The respondents to the second questionnaire (Example 6.1B) were supplied with the same alternatives but the choice was stated in terms of losses rather than gains; they had to choose between a loss of £400,000 with certainty or the alternative with a one-third probability of losing nothing, and a two-third probability of losing £600,000.
Example 6.1 Framing effect

<table>
<thead>
<tr>
<th>Example</th>
<th>Option A</th>
<th>Option B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 6.1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The turnover of your company is expected to be £20m. Owing to difficult economic conditions, your company is facing an expected cash loss of £600,000 for the next quarter. You are considering two possible approaches to cope with this situation. The first course of action would result in a certain saving of £200,000. For the second option, you estimate that there is a 1/3 probability of saving the entire £600,000 and a 2/3 probability of saving nothing.</td>
<td>Save £200k with certainty</td>
<td>1/3 probability of saving £600k, 2/3 probability of saving nothing</td>
</tr>
<tr>
<td>Example 6.1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The turnover of your company is expected to be £20m. Owing to difficult economic conditions, your company is facing an expected cash loss of £600,000 for the next quarter. You are considering two possible approaches to cope with this situation. The first course of action would result in a certain loss of £400,000 rather than the expected loss of £600,000. For the second option, you estimate that there is a 1/3 probability of losing nothing and a 2/3 probability of losing the entire £600,000.</td>
<td>Lose £400k for certain</td>
<td>1/3 probability of losing nothing, 2/3 probability of losing £600k</td>
</tr>
</tbody>
</table>

In fact the outcomes are identical in these two examples; all that differs is the context in which the decision is placed. In the first example the outcomes are framed in terms of gains while in the second scenario, they are stated in terms of losses. Yet, some 72.7% of respondents to the first questionnaire selected option A while 62.8% of respondents to the second questionnaire chose D. This switch from risk aversion to risk-seeking behaviour when the same problem is defined in terms of losses rather than gains is very common in studies which examine the framing of decision problems. For example, Tversky and Kahneman (1981) set a problem in which the same outcomes and probabilities were presented to two large classes of US students. In their experiment, 72% of the 152 students in
the first class chose option A, while 78% of the 155 students in the second class selected option B. Sullivan arrived at a similar percentage in her smaller sample of 71 senior managers in US firms who were surveyed for her doctoral thesis. The main conclusions of virtually all, Canadian, Israeli and US, studies in this area have suggested that managers favour the certain option when outcomes are described in terms of gains but select the risky option when outcomes are restated in terms of losses; the framing of a decision appears to have a profound effect on the managers’ attitudes to risk. This reversal of preferences was also discovered in this study and confirms managers in the UK act in the same way as their counterparts overseas.

Companies in financial distress

Example 6.2, included in the first questionnaire, examined managers’ attitudes to risk when their companies were faced with possible financial difficulties.

Example 6.2 Financial distress

<table>
<thead>
<tr>
<th>Decision</th>
<th>Option A</th>
<th>Option B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invest in project Z: 50% chance of making £6m, 50% chance of losing £12m</td>
<td>Do nothing: Loss of £3m</td>
<td></td>
</tr>
</tbody>
</table>

The problem set was very similar to Example 6.1 except the survival of the company was threatened and the magnitude of the potential gains and losses were large relative to the size of the company. In particular,
the scenario suggested a firm with a turnover of £20m was considering a project which could result in a certain loss of £3m or else a possible gamble which would either yield a payoff of £6m if the project outcome was favourable or a loss of £12m if the project went badly wrong.

Eighty-four of the 132 respondents (63.6%) chose to take a risk while 40 of the respondents (30.3%) opted to accept a certain loss of £3m and do nothing. These UK results contrast with Sullivan's US findings that, when confronted by the possibility of a ruinous loss, 57% of respondents preferred the risk-averse alternative. This conclusion that the possibility of a serious loss is treated differently from one that will bankrupt the firm if it materialises confirms the earlier result from Shapira's 1986 study of US and Israeli managers; he found risk taking increased in 'bad' situations but, when a failure could jeopardise the survival of the firm, over 90% of managers stated that they would not accept the risk. Perhaps the magnitudes involved in the example were not thought to be sufficiently large to threaten the future survival of the company. To examine this possibility, the managers were asked whether their answers to the scenarios in Example 6.2 would change if the probabilities in the risky decision varied. Some 56% of respondents indicated if the probability of achieving a ruinous loss of £12m increased from 50% to 90% their preferred option would switch to the less risky strategy.

Interestingly, when asked if they would change their minds if the chance of making a £6m gain had been 90% and of losing £12m was 10% most managers said yes except for junior managers who were relatively new in their organisations. These junior managers were less influenced by the size of any possible gain in a decision outcome but instead tended to weight the gain by its likelihood of occurrence. Their risk choices were more in tune with the predictions of the textbook approach.

**Isolated and joint decisions**

Example 6.3 included in the second questionnaire investigated whether managers considered decisions in isolation or looked at related decisions together. The respondents were asked to choose from two
options in two related decisions. It was expected that most respondents would consider the two decisions in isolation and compare outcome A with B and outcome C with D instead of comparing the joint outcomes of A and C with B and D or A and D with B and C.

**Example 6.3 Inter–related decisions**

<table>
<thead>
<tr>
<th>Decision (i) choose between:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) A sure profit of £240,000</td>
</tr>
<tr>
<td>(b) A 25% chance of making £1m and a 75% chance to make nothing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decision (ii) choose between:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(c) A sure loss of £750,000</td>
</tr>
<tr>
<td>(d) A 75% chance to lose £1m and a 25% chance to lose nothing.</td>
</tr>
</tbody>
</table>

Approximately 77% of respondents chose option A in the first decision while just under 72% chose option D in the second decision. For this pair of joint decisions the choice of B and C is optimal; it yields a higher expected payoff than the combination A and D. However, only a small minority (4 out of 76) chose the optimal pair of decisions suggesting that managers tended to look at each decision in isolation and failed to consider the relationship between the payoffs of the problems. This confirmed the findings of Redelmeier and Tversky (1992) who suggested that individuals act on a case-by-case basis and devote too much attention to specific features of recent decisions rather than pay sufficient attention to all the facts.

**Magnitude of loss**

The final example in the two questionnaires examined whether the magnitude of a loss would stop managers from choosing a particular option or whether the small probability of a large gain would persuade managers to put aside their caution.
Example 6.4: Large gains with small probabilities

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th></th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability</td>
<td>Profit £m</td>
<td>Probability</td>
<td>Profit £m</td>
</tr>
<tr>
<td>0.50</td>
<td>1.00</td>
<td>0.500</td>
<td>0.98</td>
</tr>
<tr>
<td>0.25</td>
<td>0.00</td>
<td>0.015</td>
<td>6.83</td>
</tr>
<tr>
<td>0.25</td>
<td>2.00</td>
<td>0.485</td>
<td>0.83</td>
</tr>
<tr>
<td>Expected value</td>
<td>£1,000,000</td>
<td>Expected value</td>
<td>£995,000</td>
</tr>
</tbody>
</table>

The results of Example 6.4 were as expected and showed that managers did appear to have been attracted by the possibility of a large gain of £6.83m even though that gain had only a 1.5% chance of occurring; 93 of the 132 respondents chose this project rather than project A which had a higher probability (25%) of achieving a smaller profit (£2m). These findings confirm the results from experiments by Kahneman and Tversky (1982) where the importance of relatively small probabilities was overweighted in individuals' consciousness; this discovery was incorporated into their prospect theory of risk which they advanced as an alternative to the conventional treatment of this topic in economics and finance.
Example 6.5 Large losses with small probabilities

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th></th>
<th>Y</th>
<th></th>
<th>Z</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Probability</td>
<td>Profit/loss £m</td>
<td>Probability</td>
<td>Profit/loss £m</td>
<td>Probability</td>
<td>Profit/loss £m</td>
</tr>
<tr>
<td>0.50</td>
<td>1.67</td>
<td>0.5000</td>
<td>1.67</td>
<td>0.500</td>
<td>1.50</td>
<td></td>
</tr>
<tr>
<td>0.25</td>
<td>-8.34 (loss)</td>
<td>0.0135</td>
<td>-58.34 (loss)</td>
<td>0.015</td>
<td>60.00</td>
<td></td>
</tr>
<tr>
<td>0.25</td>
<td>11.67</td>
<td>0.4865</td>
<td>3.33</td>
<td>0.485</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expected value</td>
<td>£1,667,500</td>
<td>Expected value</td>
<td>£1,667,455</td>
<td>Expected value</td>
<td>£1,650,000</td>
</tr>
</tbody>
</table>

In Example 6.5, the expected returns were almost identical for the three projects (X, Y and Z) with just a slightly lower expected value for project Z. As expected, however, respondents avoided the option with the large loss (option Y); 47.4% chose Z, which had the lowest expected value while 23.1% selected X that had a 25% chance of making a small loss. This reaction by the managers in this sample is consistent with Shapira’s 1986 findings that 80% of his US and Israeli respondents focused on the maximum loss. It is also consistent with the early results of Alderfer and Bierman’s (1970) article which presented the same problem to 47 US business students; they reported that ‘the students showed a strong preference for ... Z ... which had a lower mean and larger variance but large positive skewness and no chance of loss’ (p.345); some 89% of the US students in their sample selected this option.

Comments

This chapter has reported the results of the respondents’ choices to certain decision situations. The results offer some answers to research question 4 since a number of decision characteristics were identified as being important for risk. These decision situations included in this research were designed to examine how managers make decisions in the
face of a difficult situation. These situations seemed to exert an important influence on the risk attitudes of managers. Managers preferred to choose the middle option, liked their decisions to be monitored, selected choices that avoided losses and ignored the probabilities attached to different outcomes. Managers were also risk seeking when confronted with losses but became risk averse when considering gains. The managers exhibited many of the biases that have been documented in other studies from different countries. They seemed unaware that their decisions were not optimal from a decision theory perspective. Perhaps if managers knew about these biases, different decisions might have been made.

Endnotes:

1 Although the interviews revealed that managers did not appear to calculate probabilities explicitly, they tried to avoid risk and these examples were designed to test the risk-averting and risk-seeking attitudes of managers.

2 If they face an initial loss of £600,000 and then can achieve a certain gain of £200,000, the respondents face a certain loss of £400,000 overall.

3 Property and treasury managers also indicated that a 10% chance of such a large loss would not lead them to change their minds.

4 The expected values were not given in the questionnaires for their example 6.4 or 6.5.
Chapter Seven

Attitudes to Risk in Failing Companies

The fifth research question that this study sought to examine was whether managers in failing companies exhibited different attitudes to risk and behaved differently from managers in other risky situations. A great deal of the empirical evidence suggests that managers’ attitude to risk varies according to whether the survival of their firm is threatened; they switch from being risk seeking when small negative outcomes are possible to being risk averse when a decision outcome might endanger the continuing existence of the firm. However, if the survival of the firm is in doubt, managers may once again become risk seeking as they take bigger and bigger gambles in an attempt to rescue their ailing company. It was decided to interview insolvency practitioners to obtain their views about the actions of managers in such circumstances.

Insolvency practitioners are usually called in by a bank to provide advice to firms in financial difficulty or appointed as receivers when the firm is unable to satisfy a major creditor. As a result, insolvency specialists are uniquely placed to comment on the decisions of managers of failing firms because of their vast experience with companies in this predicament. This chapter therefore considers the special situation of companies that are in financial difficulty.

Backgrounds of insolvency practitioners

Table 7.1 summarises the background details about the insolvency practitioners interviewed for this study. All were employed by a Big 5 firm of Chartered Accountants at an office located in Scotland.
Table 7.1: Details about the specialists interviewed

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Firm</th>
<th>Functional responsibility</th>
<th>Level of seniority</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1</td>
<td>J</td>
<td>Insolvency practitioner</td>
<td>Middle manager</td>
</tr>
<tr>
<td>J2</td>
<td>J</td>
<td>Insolvency practitioner</td>
<td>Middle manager</td>
</tr>
<tr>
<td>J3</td>
<td>J</td>
<td>Insolvency practitioner</td>
<td>Junior manager</td>
</tr>
</tbody>
</table>

The three interviewees in this section of the study had different backgrounds and training, possessed varying amounts of experience in insolvency and focused on different-sized clients. For example, J1 was a member of the Insolvency Practitioners Association, while J2 and J3 had trained as chartered accountants. More importantly, J1 tended to work on personal bankruptcies and small company insolvencies, whereas J2 concentrated on larger clients. Also, J1 and J2 both had 15 years of experience in dealing with insolvency problems, while J3 had joined the insolvency department only six months earlier after completing his audit training. All three were able to supply a variety of insights into the decisions of managers whose firms were in financial difficulties and they commented usefully on the risks that these individuals had felt compelled to accept to try to rescue their organisations.

Common reasons for company failure

The three interviewees agreed with the views of John Argenti (1981) who published influential books and articles in the mid-1970s on the causes of company failure. He argued that ‘bad management’ was a major cause of failure and could be as a result of one-man-rule by a domineering Chief Executive Officer (CEO), an unbalanced top team which lacked a finance director or indeed a manager with any financial expertise, the launching of a major project which involved impressive technological innovations but which failed commercially and a rapid rise in the gearing ratio as the company became increasingly reliant on bank debt for funding. Virtually
all of these points were raised by the three individuals interviewed. For example, J2 argued:

... the one constant factor you get in companies which are in difficulty is bad management ... In 5% of cases, not getting management right internally rather than ... taking your eye off the ... big picture [leads to failure].

J1 agreed with this view and pointed out:

In a large number of the failed firms, one person has been responsible for many of the decisions and has been unwilling or unable to delegate that responsibility to other people; he is also unwilling or unable to take the advice of other colleagues and has a distinct lack of understanding of the financial side of the business.

Interviewee J2 noted:

You get more bad management when the cycle takes a downturn. If general market conditions turn against you and interest rates go up ... good management is being able to foresee these changes and to cut their cloth accordingly; bad managers wouldn’t necessarily see the effect that these changes would have.

Interviewee J2 continued that bad management was an important problem in family-run firms and suggested owners were too close to the business. He stated:

Of the family-run businesses you become involved with, failure to see the wood for the trees is a major cause of the difficulties. They can’t stand back and take an independent view because they are so involved in the business.

Poor management often led to overtrading when the company expanded too quickly for the available financing; within a very short period, these firms found themselves in financial difficulties. Interviewee J3 pointed out:

[Poor management] led to people expanding and overstretching themselves ... and the cash flows of their Excel spreadsheet did not
come in … Basically, the assumptions made about cash flows turned out not to be correct.

Attitudes to risk among failing firms

Each of the three interviewees suggested the managers of financially distressed firms usually adopted a very narrow view of risk that concentrated on the danger of being unable to pay creditors. Interviewee J3 suggested ‘in failing firms ... risk is the pressure of not taking a decision’. The senior insolvency practitioner J2 divided risk into two components and argued managers of failing companies focused on only one of these. Specifically, he stated:

You can split risk into internal and external factors: external factors include political risk, market risk, competitors and government risk; internal factors include availability of finance, competence of the existing team to carry out any plan, availability of resources and adequacy of plant and machinery … Companies in difficulty are too narrowly focused and will tend to navel gaze and concentrate on the internal issues rather than consider the big picture.

The three interviewees agreed risk taking was (an under recognised) part of the manager’s job but indicated, on the basis of their experience, managers in failing firms took different risks from their counterparts in successful companies. For example, J2 stated:

When companies get into difficulty ... you do see managers trying to take a decision that will reverse the fortunes of the failing firm - the ‘one-big-win’ scenario.

Interviewee J2 described one building company that was involved in local authority construction work but then successfully bid to build a housing development. The company took a gamble in seeking work in an area in which its managers had no experience, involving a contract of great length with little knowledge of how best to manage the relevant cash flows and this gamble led to liquidation. Interviewee J1 also recalled several cases in which the manager of the failing enterprise first began to
act in a less risk-averse fashion and then took riskier decisions as he found himself entrapped in a project based on an initial poor decision. J1 noted:

[Managers] start taking bigger gambles when they begin to get into difficulties. For example, in some industries the margins are non-existent. Yet they are prepared to take on jobs ... to keep the cash coming in and to pay the suppliers of a previous job, not the current suppliers.

As well as taking different risks, the interviewees indicated that managers concentrated on the downside of any further decisions that they made. Company managers of failing firms tended to focus on ‘threats’ to their short-term financial future rather than on the range of possible decision outcomes that might occur. The interviewees were in no doubt, therefore, that, as a general rule, managers of failing firms made decisions which they might not have made had their organisation not been in financial difficulties.  

Turning a failing company around

The three individuals indicated there were a number of characteristics that distinguished the failed company’s management from that of the turnaround firm. Managers in turnaround firms took decisions and actions much faster than their failing counterparts “either because the bank insisted that they did so or because they themselves realised that they had a problem - they took advice at an early stage”. Insolvency practitioner J2 added that, in addition to recognising that a difficulty existed, turnaround firms typically acted on the advice provided. He stated individuals in such companies usually ‘have a broader awareness of what goes on in the market place ... and usually a strong finance person’. All interviewees agreed that managers of failing firms usually did not act quickly enough to save their company. J2 stated:

Whether you manage to salvage the business and sell it on as a going concern to someone else is really a function of (i) how quickly you get in there, (ii) how far the business has deteriorated and (iii) whether you still have your core customers ... If key customers have started to walk, if
your suppliers are refusing to supply and if half-a-dozen key employees have been poached, then more often than not you will have to shut the doors and salvage nothing.

A proven track record of making successful decisions was seen as an important factor in distinguishing the manager of the turnaround organisation from the manager of the failed enterprise. It was suggested a manager with a proven track record had this experience to fall back on when the firm first began to get into financial difficulties. However, two of the three interviewees argued it depended on the personality of the individual involved in the decision and the nature of the problem facing the firm. If the problem called for new creative solutions, then experience was often a hindrance since ‘reverting to type’ often only exacerbated any difficulties that the companies already faced.

All three respondents had a clear idea of what they, as receivers or ‘company doctors’, could do to help managers turn the firm around. They suggested they could take a dispassionate view of a company’s risks and perhaps provide a ranking of actions that might save the firm (or realise the largest possible amount from the sale of the company’s assets). They indicated when they first arrived at the company, they met the manager in charge and then toured the premises to meet the employees.

Insolvency practitioner J1 indicated:

*The first thing I do is walk around the factory ... [The employees] are probably the first to know that there is a problem. They will usually tell you what the problem is and where the assets have been hidden; ... they typically have a much clearer view of the problem than management.*

Distinguishing between personal and company risks

The three practitioners argued that in some circumstances, the managers were unable to distinguish between the risks they were taking in their personal capacity and the risks they were taking on behalf of the organisation. For example, J2 pointed to the ‘complete disregard for the corporate veil and a failure to separate the personal from the corporate’
as a significant cause of company failure, especially among family-run businesses. Interviewee J1 suggested it was only when the personal risks became prominent that the company managers recognised that a serious problem existed. J1 noted:

*When managers are suddenly faced with losing their house, it concentrates the mind on the problems they are facing … [Before then] a substantial number stick their head in the sand and refuse to admit that the situation is as bad as it is.*

This interviewee was able to recall one situation where a manager ‘refused to accept that the company’s downfall was anything to do with him; it was everyone else’s fault except his’. Yet the subsequent investigation revealed that ‘he had been taking money out of the company left, right and centre’ and that the resulting financial illiquidity had contributed to the failure of the firm.

All of those questioned believed the regret faced by managers varied according to the financial health of the enterprise. Most managers of healthy firms would probably regret an unfavourable outcome for a routine decision more than a non-routine or unusual decision which failed to deliver the outcome expected assuming that both decisions had the same expected payoffs; the routine decision would represent a problem which the manager might expect to get right whereas the non-routine decision might not relate to an area where the manager had previous expertise. For failing firms, however, the three respondents suggested that the non-routine decision might represent a last ditch attempt to save their firm from liquidation and so any unfavourable outcome from such a decision could result in the failure of the firm.

**Comments**

This chapter discussed the views of three insolvency practitioners actively involved in dealing with the managers of failing businesses. Their views on the risk attitudes of managers in unsuccessful businesses suggest that, in answer to research question 5, these individuals do take different decisions from their counterparts in successful organisations and that they do have very different perceptions of risk. The managers in failing
firms often focus on only one or two issues and are sometimes unable to separate their personal risks from their business risks. They are willing to take greater gambles that may save their business from liquidation, although when insolvency is imminent their attitudes become more risk averse.\(^2\)

The managers in turnaround situations have different risk attitudes from those in companies that fail; the turnaround managers are willing to ask for help sooner and recognise that drastic action needs to be taken. There is, therefore, a clear difference between the managers in failing firms and those managers who face risk from a more secure perspective.

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**Endnotes:**

1. Obviously it is difficult to separate out the attitude of the individual from the context. However, in these experienced insolvency practitioners’ views, managers did react differently in failing firms.

2. From the discussion earlier, limited liability may have an important role to play on managers’ attitudes to risk, especially before the rules on directors’ responsibilities were introduced. Without limited liability the downside may become more important as it may reflect a possible erosion of their private wealth if personal guarantees have been given. Also the role of employees may be different from owners, as they wish to preserve their employment.
CHAPTER EIGHT

MANAGEMENT OF RISK

Earlier chapters of this report have established that risk is a fact of every day corporate life and that successful organisations need to take risks constantly. Research Question 6 wished to examine whether companies attempted to manage risk and, if they did, what strategies were employed for this purpose. The Turnbull Report (1999) reflects the fact that organisations should adopt such strategies, but highlights the weaknesses of some of the strategies that are commonly selected. For example, the Turnbull Report states:

A sound system of internal control reduces, but cannot eliminate, the possibility of poor judgment in decision making; human error; [and] control processes being deliberately circumvented (p.7).

In a later section, the Turnbull Report highlights three basic questions about the control of risk:

[First] does the company have clear objectives and have they been communicated so as to provide effective direction to employees on risk assessment and control issues?

[Second] are the significant internal and external operational, financial, compliance and other risks identified and assessed on an ongoing basis? (Significant risks may, for example, include those related to market, credit, liquidity, technological, health, safety and environmental, reputation, and business probity issues.)

[Finally] is there a clear understanding by management and others within the company of what risks are acceptable to the board? (p.13).
This chapter tries to distil from the questionnaire responses and interviewee discussions whether there are controls and which strategies are sometimes adopted for managing risk.

**Questionnaire responses**

In the second questionnaire, the penultimate section asked respondents about the various strategies they might employ to manage risk. Table 8.1 contains a ranking of respondents’ views about their likelihood of adopting strategies to manage risk; managers were asked to indicate their preference on a 5-point scale where ‘1’ suggested they would adopt the strategy and ‘5’ indicated they would not. Eleven of the 12 strategies in this table are significantly different from the mid-score of three. The findings suggest managers are ambivalent about setting up a broadly-based internal team to advise them about a decision. Instead, the respondents indicated that they would manage risk by:

- gathering more information;
- consulting with colleagues;
- consulting experts and superiors;
- comparing this decision with previous decisions;
- shortening the decision horizon; and
- using derivative products.

In contrast, a number of actions were not seen as viable strategies for improving the management of risk:

- doing nothing;
- postponing the decision; or
- ignoring the outcomes of previous decisions.

The courses of action that may be taken can be illustrated with some of the comments made by the interviewees.
Table 8.1 Management of risk

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mean</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gather more information</td>
<td>1.24</td>
<td>0.54</td>
</tr>
<tr>
<td>Consult with colleagues</td>
<td>1.41</td>
<td>0.61</td>
</tr>
<tr>
<td>Consult experts</td>
<td>1.90</td>
<td>0.77</td>
</tr>
<tr>
<td>Consult your superiors</td>
<td>1.87</td>
<td>0.77</td>
</tr>
<tr>
<td>Consider the differences between this decision and earlier ones</td>
<td>1.92</td>
<td>0.88</td>
</tr>
<tr>
<td>Consider the similarities between this decision and earlier decisions</td>
<td>2.12</td>
<td>0.86</td>
</tr>
<tr>
<td>Shorten the decision horizon (perhaps by breaking the decision into smaller sections)</td>
<td>2.47</td>
<td>0.93</td>
</tr>
<tr>
<td>Use derivative products such as swaps and options to control the financial aspects of the risk</td>
<td>2.70</td>
<td>1.71</td>
</tr>
<tr>
<td>Set up an internal team to advise you</td>
<td>2.83</td>
<td>1.02</td>
</tr>
<tr>
<td>View this decision in isolation from any previous decision</td>
<td>3.73</td>
<td>1.11</td>
</tr>
<tr>
<td>Postpone the decision</td>
<td>3.76</td>
<td>1.13</td>
</tr>
<tr>
<td>Do nothing</td>
<td>4.31</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Constructing hierarchies of risk

Twenty interviewees stated they constructed a hierarchy of risky decisions, the nature of the hierarchy depending to a large extent on the industry in which their company operated and their area of responsibility within the firm. For example, managers in company A classified risks
Attitudes of UK Managers to Risk and Uncertainty

according to product brands with expenditure decisions for their market leaders being placed in a low-risk category. Company B ranked risky decisions on the basis of the type of research and development a product required, while company E divided decisions into health and safety and others. Health and safety projects were undertaken first and any surplus funds were then invested in other projects according to the rate of return that they offered and the strategic nature of the planned expenditure.

While the categorisation of risks varied from company to company, the ranking of risks was relatively common. However, none of those interviewed ranked risks on the variability in possible outcomes. Invariably, risks were rated according to the potential loss which firms might incur if a project went ahead and a large capital sum was invested and if a project did not proceed and some litigation resulted from company inaction. The responses of interviewees were, therefore, more in keeping with the psychological approach to risk even when risks were evaluated across the whole firm.

**Adopt a portfolio approach to managing risk**

Only one manager indicated risk could not be managed in an organisational setting. A number of common approaches were highlighted for limiting or reducing the risk involved in certain decisions. For example, all four interviewees at company B agreed their firm adopted a portfolio approach when deciding which products should receive research funds. As C1 stated:

> [W]e have a portfolio of products which have different potentials; within these we must invest different amounts over a five-year period.

Interviewee C3 agreed. He stated:

> The business will look for a balance of risks in development; we will go for a high risk/high return product or a low risk/low return product so that the portfolio is balanced.
The company also lowered risks of failure by entering into joint ventures with a partner whose technical expertise or marketing experience complemented the strengths of firm C; as C2 argued, this process facilitated ‘the sharing of risks between two or more companies as opposed to carrying it all yourself’. As part of company C’s strategy for risk reduction the managers divided their new product development process into a number of separate phases and evaluated the potential of each product at these different stages of development. In effect, the company evaluated the option associated with allowing the project to continue to the next phase of development and screened out a lot of products whose medical benefits or prospects of commercial success were problematic.

Company E, whose finance director argued that his acquisitive company did not engage in risk taking but in risk minimisation, emphasised that a key element in company strategy was to undertake a series of relatively small acquisitions in niche markets where a comparative advantage already existed rather than undertake a single venture of equivalent value which would have permitted significant economies in top management time. He also stressed that strict adherence to prudent and well-established procedures was at the heart of his company’s risk-minimising strategy.

Other risk-management strategies favoured by a number of the interviewees included:

- the gathering of additional data;
- the deferral of the decision until the situation was clarified; and
- the involvement of other managers in the decision, especially those who had a different quality of experience or who had been trained in different disciplines.

These approaches are mirrored in ICAEW (1997) which discusses the role that risk mapping may play in managing risk:

*Risk mapping or profiling, which takes into account the significance of a risk to the business and its likelihood of occurrence, is becoming more common … helping management to identify and rank the key risks it needs to manage and measure. Risk management is a cross-disciplinary issue. Risk mapping takes into account the significance of a risk to the
business as well as the likelihood of its occurrence, enabling risks to be prioritised. (Section 4.18, p.31).

What is apparent from the questionnaire returns and interviewee responses is managers believed that they could manage risk. They did not accept existing probabilistic assessments of outcomes but sought to improve the odds of favourable decision results. They had a number of strategies for achieving this aim and these strategies are similar to approaches identified in different academic studies and practitioner reports that have been issued over the last decade.

Comments

The evidence presented in this chapter addresses research question 6, and indicates that the companies studied often attempted to introduce strategies for managing risk. Sometimes, these strategies were informal. For example, managers liked to discuss risks with colleagues or experts and sought to obtain as much information as possible. Often the approaches were formal. Formal approaches to managing risk included the management of risks on a portfolio basis and the grouping of risks into different categories. Experience seemed to play a large part in deciding upon which apparent approach might be adopted in a particular set of circumstances. Strategies that worked in the past tended to be employed in the future. Also, managers who had successfully managed risky decisions in the past tended to be identified as decision takers of the future. What is apparent from the analysis of this chapter is that managers exhibit a considerable amount of rationality and insight when faced with risky decisions in a complex business environment. They adopt different strategies that they believe manage the risk for their part of the company. Perhaps future work in this area could extend the present analysis to see why different risk management strategies are employed in certain situations.

Endnote:

1 As a number of the managers were not drawn from the finance areas of their firms this result may seem surprising. However, financial aspects of risk were considered important, and this seems to suggest managers did understand and did think it was important.
Chapter Nine

External Influences on Risk

The final research question that this study examined focused on whether outside stakeholders exert a significant influence on any risky decisions that might be taken by managers in the firm. This question was included because Chandrasekar et al (1999) reported that the views of large institutional investors were factored into risky decisions about the launching of new pharmaceutical products and the development of a suitable product portfolio mix.

Questionnaire responses on stakeholder influences

Table 9.1 provides details about the influence of stakeholders on the major risky decisions managers might take. Seven of these stakeholder groups were thought to exert a significant influence on risky decisions:

- customers;
- competitors;
- large institutional shareholders;
- Government/regulators;
- employers;
- banks; and
- parent company.

The media were thought to have little effect on decisions while only two stakeholders were unlikely to influence the decisions taken by managers;

- non governmental organisations such as Greenpeace; and
- small shareholders.
The question about stakeholder influences elicited a number of interesting differences in the responses of the various managers to the questionnaire survey. Older managers, general managers and managers in small companies did not believe institutional and larger shareholders had a great deal of influence on their attitudes to risk compared with other managers; in contrast junior managers thought these stakeholders had more influence in decisions than other respondents to the questionnaire.

*Table 9.1 Stakeholder influences*

<table>
<thead>
<tr>
<th>Are the following stakeholders in your company likely to have an influence on the risky decisions that your company may take:</th>
<th>Mean</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>2.00</td>
<td>0.97</td>
</tr>
<tr>
<td>Competitors</td>
<td>2.08</td>
<td>0.89</td>
</tr>
<tr>
<td>Institutional and other large shareholders</td>
<td>2.13</td>
<td>1.13</td>
</tr>
<tr>
<td>Government/Government agencies/Regulators</td>
<td>2.36</td>
<td>1.04</td>
</tr>
<tr>
<td>Employees</td>
<td>2.49</td>
<td>0.86</td>
</tr>
<tr>
<td>Bank</td>
<td>2.60</td>
<td>0.89</td>
</tr>
<tr>
<td>Parent company</td>
<td>2.61</td>
<td>1.33</td>
</tr>
<tr>
<td>Media</td>
<td>2.78</td>
<td>1.00</td>
</tr>
<tr>
<td>Suppliers</td>
<td>2.80</td>
<td>1.06</td>
</tr>
<tr>
<td>Non-governmental organisations eg. Greenpeace</td>
<td>3.33</td>
<td>1.02</td>
</tr>
<tr>
<td>Small shareholders</td>
<td>3.36</td>
<td>1.15</td>
</tr>
</tbody>
</table>

**Notes to Table:** The Table shows the responses to the above questions on a five point scale where 1 meant significant influence and 5 meant no influence. The table is ranked in order of importance.
Older, more senior managers and those who had been in their companies longest had strong views about the influence of small shareholders on company decisions; they believed that no such influence existed. Finance and treasury respondents also agreed that the influence of small shareholders was minimal. The largest companies in the sample and those in the capital goods sector thought that suppliers exerted a great deal of influence on risky decisions. In some industries, such as motor and engineering, inventory is kept to a minimum, therefore, much emphasis is probably put on supplier relations. A number of other findings emerged from this analysis. Senior managers and treasurers did not believe government bodies or regulators had much influence on their decisions. Marketing managers and general managers emphasised the increasing influence of the media in company decisions and played down the importance of banks in affecting company decision making. Attitudes to the importance of banks varied with company size with managers in either very small or very large companies highlighting the influences exerted by financial institutions on their decision choices; medium size companies did not support this view.

Junior managers and general managers thought organisations like Greenpeace had some influence. Junior and younger managers thought parent companies had more influence on their risky decisions. Interestingly, those managers that worked in higher risk companies agreed there were several outside organisations such as banks, parent companies and Greenpeace that had an influence over their decision making.

Interviews with financial analysts

Two financial analysts were also interviewed to ascertain their views on the role of major institutional shareholders in influencing the risky executive decisions of companies whose shares are included in their portfolios. The analysts interviewed supplied two useful perspectives on the risk attitudes of the UK manager. First, Interviewee 1 indicated that an investment manager whose institution has a major shareholding in a company is likely to express frank opinions about any strategic decisions which the company is contemplating when the manager meets informally with the chief executive - confirming the course of action, perhaps
modifying it, or, conceivably, inducing a serious rethinking of priorities. In all cases, external and internal perceptions are revealed at these meetings and an exchange of views occurs which may alter managers’ attitudes. Second, an analyst with extensive knowledge of both Japanese and UK manufacturing companies (Interviewee 2) noted some salient differences between the two: British companies have better authorisation procedures and reach decisions more quickly than their Japanese counterparts; Japanese managers are much more consensual in approach, engage in protracted discussions before a major decision, generally adopt a more long-term perspective but tend to implement decisions more quickly as soon as a resolution has been reached. He argued Japanese managers are, in general, bolder in accepting technological risks - in part because of the shared responsibility of group decisions in such matters and in part because of their lack of sensitivity to the cost of capital or to financial constraints on their decisions.

Comments

To address research question 7, this chapter investigated whether some external stakeholders have a significant influence on the risks taken by organisations. The responses from the interviews and the analysis of the questionnaires suggests that this is indeed the case. The views of certain stakeholders, in particular, customers, competitors and institutional shareholders, seemed to affect the risks that managers were prepared to take, but no systematic attempt was undertaken to manage this influence on risk. Perhaps informal links, especially with large investors and key analysts allowed views on risk to be communicated to managers. The influence of stakeholder groups is tempered by factors such as the size and financial strength of the company, the dependence of the organisation upon certain suppliers and customers and public sentiment over current affairs.
CHAPTER TEN

CONCLUSIONS AND RECOMMENDATIONS

This study sought to examine seven key questions regarding managers’ attitudes to risk through the use of 29 semi-structured interviews and two postal questionnaire surveys. In this final chapter, conclusions are drawn in relation to each research question and ten specific recommendations, designed to improve the quality of decision making in risky situations, are made.

Managers’ perceptions of risk

In answer to research question 1, respondents almost invariably suggested there were many different types of risk and the importance managers attached to them varied according to a number of factors. The risks mentioned in the interviews may be subjectively separated into four main groups: finance-related risks; labour-related risks; strategic risks; and miscellaneous risks. Finance-related risks included unacceptable rates of return and trade credit risk. Labour-related risks involved the possibility that staff might defraud the firm or employees might go on strike. These labour-related risks appeared to be important to managers, but they seemed to be ignored in the risk literature covered in chapter two. They may, however, be highlighted in the industrial relations literature. Strategic risks ranged from concern about market share to fear of being taken over. The final category included those risks which were mentioned by only a small number of interviewees and which were not covered by the other three groups such as environmental concerns and fear of litigation over faulty products or malpractices.
Importance of loss avoidance

Managers were concerned about avoiding situations that might involve a loss irrespective of the likelihood of such a situation occurring. There was also evidence of inconsistencies in relation to attitudes to gains and losses in different scenarios, of a failure to appreciate crucial interdependencies and a reliance on spurious inter-relationships as discussed in chapter six.

However, irrespective of the type of risk encountered, loss avoidance, notably the avoidance of the maximum conceivable loss, was often in the forefront of decision-makers’ minds and answers research question 2. Risk aversion was especially apt to be transformed into opportunistic risk-seeking behaviour when managers felt compelled to pursue high payoffs in an effort to avert impending bankruptcy. However, the research report did not examine specifically any difference in attitudes to risk between limited and unlimited liability, or the differences between owners, managers and employees.

Overall, risk does appear to be a major concern to UK organisations and thus it is essential that UK companies adopt a strategy for managing risk.

Impact of personal and organisational characteristics on attitudes to risk

The managers interviewed believed risk perceptions varied according to personal circumstances, professional experience, organisational characteristics and reputation in answer to research question 3. Any concern that they had about different risks often depended upon their functional specialism within the firm and the regret they might experience if the consequences of a decision were not as expected. Options were edited and framed in accordance with company strategy and culture. They did not calculate probabilistic measures of risk such as variance and instead tended to rely on instinct and experience, as well as conformity with corporate culture, in developing their initial position, but usually depended heavily on careful and systematic investigation in
according to well-established company procedures to confirm or deny this intuition and to ensure that the risks associated with acceptable projects were kept to a minimum.

The managers’ responses showed they thought risk taking depended upon the reputation of the decision makers and their prior successes or failures and a previous track record in previous similar circumstances. Managers tried to minimise the regret associated with taking a wrong decision.

**Characteristics of a decision that influence risk assessment**

Chapter six investigated research question 4, to discover whether the decision situation was an important influence on attitudes to risk. The findings of this chapter suggest the information surrounding a decision could have a dramatic effect upon the risks that were taken. For instance, the framing of a decision in terms of gains or losses was critical in determining whether a manager would adopt a risk-seeking or risk-avoiding stance. The introduction of another alternative, especially an extreme option, could also change the risk choice that was taken. Large losses, albeit with small probabilities of occurrence also affected decision choices.

**Attitudes to risk in failing firms**

Three insolvency practitioners took part in the study to investigate attitudes to risk when firms were financially distressed and these practitioners suggested that the decisions of managers in failing firms varied from those of their counterparts in successful companies. Managers in financially distressed firms were prepared to accept greater risks in an effort to avoid liquidation. They also tended to conflate the risk of the firm and their own personal risk, presumably because mortgages and other personal guarantees were likely to become effective. The two analysts who took part in the study commented on the influence exerted by institutional shareholders on major company decisions through
informal meetings and highlighted the importance of different national cultures on manager risk perceptions.

Management of risk

Chapter eight reported that a large majority of those interviewed saw the management of risk as an important part of their job. These interviewees suggested that adopting a portfolio approach to balance high and low risk opportunities as well as forging joint ventures with other firms helped to manage the risk in their organisations. In addition, the questionnaire survey respondents indicated that gathering more information, consulting with colleagues, talking to experts, liaising with superiors and considering both the similarities and differences between the current decision and previous decisions helped to manage risk in their organisations. In contrast, postponing a decision, doing nothing or considering a decision in isolation were not thought to be helpful.

Influence of external stakeholder groups

Chapter nine addressed research question 7; it considered whether external stakeholder groups exerted any influence on the risks taken by managers. A number of managers clearly thought that the attitudes of certain external stakeholders could exert an important influence on the views about risk in some organisations. This was especially so where an investor held a large block of the company’s shares, where rumours about a potential takeover circulated or where there had been a great deal of negative publicity about a company in the press. For example, one of the companies visited believed they could be the subject of a takeover and worried about the effect that major risky decisions might have on stock market sentiment and highlighted the current share price in the entrance foyer of their building so that all their employees could see it on their way into work.
Comparison with studies in other countries

The findings of this investigation support many of the conclusions reached by studies carried out in Canada, Israel and the US. UK managers are similar to their international counterparts in their perception that risk is a multi-dimensional concept that cannot be condensed into a single number. Managers from all these countries, including the UK, also focus on avoiding large losses and believe that attitudes to risk vary with personal experience and organisational characteristics as well as the circumstances in which the decision is taken.

This study has, however, gone further than some of these international studies, such as examining the views about attitudes to risk in failing companies and the role that a few key stakeholders may have on the risk decisions that are taken by managers. These areas suggest that further investigation is required to address an international comparison of these issues.

Recommendations

This research has identified a number of findings that may improve the decision making of managers and which should change the way in which the notion of risk is taught.

Managers’ perceptions of risk

• **Companies should nominate a senior executive to develop an overall assessment of risk for the organisation.**

Individuals within an organisation have different perceptions of risk and these perspectives need to be weighed and integrated. Managers should be aware that because the backgrounds and personal traits of individuals are very different, each manager will have a different perception of, and attitude to, risk. The successful organisation may be able to manage the eclectic mix of individuals within the firm either by matching backgrounds and personality traits to job requirements or by nominating a senior member
of staff to manage the portfolio of diverse risk perceptions and attitudes within the firm.

- **Companies should report a variety of different risk measures.**

  Managers view risk as multidimensional and do not believe that the notion of risk can be captured by a single number such as the variance of outcomes. The successful company will require many different risk measures to be reported to ensure that the firm has an overview of the different types of risk that it faces and the overall exposure of the organisation to each of these types of risk.

- **The teaching of risk should be expanded to take account of the psychological factors that influence individuals’ attitudes to risk and to use insights from how managers make decisions in practice.**

  Psychological studies on attitudes to risk contribute to an understanding of why managers make certain decisions given a range of outcomes. The teaching of risk in the profession and in academia should be adapted to ensure that managers are more aware of these psychological factors in assessing risky situations. The current focus on calculating the variance or standard deviation of possible outcomes needs to be tempered by the realisation that probabilities and quantitative measures of outcomes are usually not available in practice and that individuals tend not to behave in a predictable fashion basing their decisions on expected values. Instead, a variety of factors influence perceptions of risk and have an impact on the decisions that are taken.

**Importance of loss avoidance**

- **Companies should train managers to consider the upside potential as well as the downside risk associated with a decision.**

  Managers concentrate on loss avoidance when making decisions and this focus may lead to sub-optimal decisions being made; risks should be viewed from the point of view of gains as well as losses.
Impact of personal and organisational characteristics on attitudes to risk

• *Companies should appoint managers who have the necessary personal traits for the risk-taking nature of that position.*

Personal factors influence attitudes to risk. Age, background, personal circumstances and the position of a manager within a firm lead to different propensities to take risk and hence the suitability of managers for different jobs within a company. For example, young, aggressive firms should employ gregarious extrovert individuals, whilst older, well-established firms should employ less extrovert individuals. Companies in dynamic growth industries should possibly ensure that their employees also have outgoing personalities and risk-taking propensities in conjunction with appropriate incentive systems and control mechanisms. Companies may want to match the attributes of their staff with the requirements of any post that they are attempting to fill. There will, therefore, be less of a culture clash between the individual and the organisation and both the company and the staff will work together to achieve the same goals.

• *Companies should set up multi-disciplinary committees to consider risks to ensure that different aspects of the inherent risks and biases will be recognised.*

Organisational characteristics affect risky choices and the functional responsibility of individuals within a firm will colour their judgment of the underlying risks. For example, marketing managers tend to consider brand image and sales statistics as key risks while accountants and treasurers focus on financial risks. If only one individual or department evaluates the riskiness of a decision, a limited view on risk may be taken.
Characteristics of a decision that influence risk assessment

- **Companies should educate their managers to make them aware of the biases that they bring to a risky decision situation.**

Managers subconsciously make biased decisions in certain circumstances. In particular, the framing of a particular course of action in terms of positive or negative attributes may have a dramatic affect upon the decisions that are made. For instance, if a committee or board meeting is presented with information in a positive light a risk-averse decision may be taken. If that same information is presented in a negative frame of reference, a more risk-taking decision may be made. This may have fundamental affects on the strategic direction of organisations if managers are ignorant of these biases. Awareness of these biases may enable them to take more informed decisions that are consistent over time and across different settings. Decision outcomes may vary depending upon the mood or personal circumstances of the individual concerned, which may change several times a day. Managers may be biased due to an unrelated recent occurrence that was perhaps in the news, or may ignore other situations that may be affected by the decision currently under review. If managers are not aware of these possible biases inappropriate and inconsistent decision choices may be made.

Attitudes to risk in failing firms

- **Individuals involved in insolvency work or who advise financially distressed firms should be aware that attitudes to risk change markedly once the company is in danger of failing.**

Decisions by managers in financially distressed firms are thought to be different from those in non-distressed companies. The managers often became more risk-seeking and confuse personal with business risks. Managers of ailing firms become less cautious and adopt high-risk strategies that they would never consider in more ‘normal’ circumstances.
Management of risk

- **Companies should put in place formal processes to encourage managers to adopt risk management procedures.**

Different strategies are available for managing risk and managers need encouragement to consider alternative strategies: gathering more information, consulting with experts and drawing on experience were some of the different approaches employed. In addition, managers can assign decisions to different risk categories, employ a portfolio approach to risky decisions and attempt to break a large problem down into smaller decisions without binding the firm to any long-term commitments. Many managers in this study developed a hierarchy of risks, some adopted a portfolio approach by taking a mix of high and low risk ventures while others broke a decision down into a sequence of shorter decisions with the option of abandoning a course of action; many thought that there were a variety of ways for managing risk.

Influence of external stakeholder groups

- **Boards of directors should formally consider the attitudes of investors and other stakeholder groups so that lines of communication can be established between the stakeholders and the organisation and the risk information disseminated.**

The attitudes of investor and other stakeholder groups can influence the attitudes to risk of managers within the firm. Managers sometimes consult these stakeholder groups directly about a major risky decision. At other times their influence is indirectly felt as managers factor into decisions the likely views of different groups who have a major stake in the organisation. A wide variety of stakeholder groups were suggested by the different interviewees and companies may need to devote some time to deciding on which stakeholders’ views need to be considered in different situations.
Final comments

Overall, the findings of this UK study suggest that the research questions set out in chapter one are highly relevant to the risks taken by business every day. The risks that managers are typically concerned about relate to their position and job title within the firm while their risk-taking behaviour depends upon their personality, their background and the general business environment. The recommendations of this report are based on the views of managers who have many years of experience in taking risky decisions. They should therefore provide a basis for ensuring that managers at other UK companies make better decisions in the future. They will hopefully make managers aware of different strategies that are being employed in other firms for controlling risk and the factors that influence attitudes to risk in UK companies. At the very least this report should encourage managers to think about attitudes to risk in their firms.
REFERENCES


Securities and Exchange Commission, Overseas enterprises’ annual report filings on Form 20-F.


