



HM Government

Understanding the Behavioural Drivers of Organisational Decision-Making

Rapid Evidence Assessment

Acknowledgements

This review was authored by Dr Sally Wilson at the Institute for Employment Studies (IES) and Dr Silvia Sonderegger at the University of Nottingham with research input from Jonathan Buzzeo at IES. Additional support was provided by Sara Giorgi and David Fell at IES's partnering organisation, Brook Lyndhurst.

The authors wish to thank Daniel Alford, as project lead, and all members of the steering group for their advice and guidance, including other representatives from the Department for Energy & Climate Change (lead department), the Department for Business Innovation & Skills, the Department for Transport, the Equality & Human Rights Commission, Public Health England, the Department for Environment Food & Rural Affairs, the Food Standards Agency, the Department of Health and the Health and Safety Executive.

Cabinet Office
25 Great Smith Street
London SW1P 3BQ

Publication date: March 2016

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URN: 16D/048

Executive Summary

Policy context

The Government has set out a desire to cut red tape for business, and a ‘one in, two out’ rule for business regulations forms an explicit part of the Department of Business, Innovation and Skills (BIS) policy. The prospect of less reliance on regulation and legal levers requires governmental departments and agencies to influence the behaviours of organisations via other means¹. A need has been identified to understand the generalisable/common behavioural factors which explain organisational behaviours and influence organisational decision-making and change and, in particular, those influences that do not centre on fiscal incentives or penalties, or direct means of regulation such as inspections or reporting requirements.

Methods and approach

This rapid evidence assessment (REA) which was undertaken by the Institute for Employment Studies has been produced in response to an identified need to address the following overarching research questions:

- What does the existing evidence tell us about the behavioural factors which explain organisational behaviours and influence organisational decision-making?
- Are any of these insights (i) generalisable across multiple organisation types, and (ii) utilisable by those seeking to influence organisations’ behaviours and/or decision-making?

A rigorous methodological approach to this review consistent with a standard government social research (GSR) rapid evidence assessment (REA) was devised to meet the challenge of identifying high-quality (peer-reviewed) sources containing evidence that were both (i) relevant to the main research questions and (ii) acceptably generalisable to multiple policy areas. The methodology was developed in an iterative nature to enable the research team to ‘drill down’ to the evidence considered central to the key questions for the research.

The findings of the review centre on a range of behavioural factors identified in the domains of behavioural economics, social and organisational psychology, management sciences and others. Many of the insights which emerge from the review stem from the consensus that groups (comprising more than one person) rather than single individuals represent the basic unit of decision-making in most organisations. A comprehensive summary of additional insights is reported thematically, starting with structural factors that provide context for the behavioural findings. This is followed by a detailed breakdown of behavioural drivers presented as ‘cognitive’, ‘social’ and ‘cultural’ factors. It should be noted that a thorough

¹ <https://www.gov.uk/government/policies/reducing-the-impact-of-regulation-on-business>

examination of structural factors and their relative importance falls outside the scope of the current review. However, the diversity of organisations and the environments in which they operate merit consideration, and the inclusion of a summary of structural issues in this report underlines the general point that a 'one size fits all' approach to influencing organisations would be over-simplistic.

Findings of the REA

Structural factors

As one might expect, the relative importance of behavioural drivers will vary according to organisational factors such as size, sector and 'raison d'etre' (eg whether profit making, representing an electorate). Other key considerations are ownership/governance and market share of the organisation and its concern for reputation based on degree of visibility to the public.

A particularly important structural factor is firm size. For example, with respect to motivations to comply with regulation, smaller businesses have been shown to place relatively more importance on economic drivers (ie direct cost advantages of complying) than larger firms. Generalisations based on size can, however, be over simplistic, particularly for small and medium-sized enterprises (SMEs) where significant differences can exist between businesses employing 250 people and those which employ five.

The shape of an organisation (eg layers of hierarchy; horizontal, vertical or flat structure) is important in understanding the way decisions are made and therefore how to influence behaviour change. For example, centralised, hierarchical decision-making can serve to filter out erroneous ideas at the expense of rejecting other, potentially more creative, solutions. Also, the extent to which an organisation is coordinated is likely to impact on whether a change implemented in one part of an organisation impacts the organisation as a whole more widely.

Intersectoral differences with respect to main business activity (ie differences between organisations operating in different business sectors) are also important, as is the distinction between private and public sector. As might be expected, the prospect of a competitive advantage is a motivating factor for businesses operating in the private sector. Behavioural drivers specific to public sector organisations have received comparatively little attention in the domains of study considered by this REA but there is evidence that, in common with private sector organisations, budget maximisation is often desirable, as is the drive to innovate.

Organisations will factor the reactions of stakeholders into many aspects of their decision-making; for example, those of shareholders (private sector) and the electorate (public sector). In the public sector, low public acceptability can quickly undermine commitment to take action. In the corporate world a shift towards increased transparency and disclosure of interests served is seen as influential in firm-level decision-making.

Economically important decisions with far-reaching consequences tend to be taken by teams rather than by individuals; this means in practice that the unit of decision-making in an organisation is a group, although this may vary according to context. For example, as a consequence of their size and resource limitations, SMEs tend to rely more on the abilities of their managers; this may have implications for decision-

making quality (see below). There is a suggestion that boards, where they exist, may have a more influential role in smaller businesses than in corporations.

It may be appropriate in some circumstances to target points of contact other than senior managers or directors. Because of the way many organisations are structured, middle and junior managers can be key to enabling change and can become barriers to success if excluded. Timing is another structural factor to consider when influencing organisations. If an organisation has a business plan, or delivery deadlines that cannot be disrupted, its decision-makers may be more or less receptive to external nudges at certain times.

Cognitive drivers

In general, organisations are better at slower, more rational thinking than individuals because of the procedures that are put in place before decisions are taken. Recent, high-quality sources of evidence on non-interactive decision-making indicate that groups are more cognitively sophisticated than individuals and that, on the whole, group decision-making tends to alleviate the biases exhibited by individuals. Experimental results suggest that using teams in organisational tasks can subsequently improve the skills of employees in individual tasks; ie there are strong positive spillovers on the quality of individual decisions. (A potential implication is that following teamwork individuals are more difficult to 'nudge'.) Groups also have the potential advantage of access to a larger pool of knowledge than individuals.

However, as is the case with independent decision-makers, those in organisations have to work within three unavoidable constraints: information limitations, limited mental capacity and time. This means organisations may be content to rely on simple rules of thumb rather than on explicit calculation of complex optimal strategies. Therefore organisations are not immune from 'cognitive minefields', and reliance on 'MINDSPACE-like' drivers can apply in some circumstances. The influence of 'messenger', 'incentive', 'saliency', 'priming' and 'affect' can result in departures from 'rational' behaviour as can mis-estimation of risk. Studies addressing social and cultural factors identify other elements in common such as 'ego' and 'norms'. Experimentally it has been shown that cognitive biases known from individuals also work on groups but that 'situational and procedural contexts' dictate when this occurs.

Senior managers in particular can be prone to self-serving reinterpretations of reality and may, for example, underestimate the strength of their competitors. At the same time, recent evidence from influential papers in the experimental literature suggests that being responsible for others makes people more reluctant to take risks (ie demonstrating risk aversion), although having the opportunity to explain actions can attenuate this bias. An apparent disparity in some of the findings about leaders highlights the importance of considering contextual factors (such as the relationship between firm ownership and leadership) in particular organisations.

The position in the lifecycle of a business may make a difference in how 'nudgable' an organisation is. There is evidence that entrepreneurs in particular are prone to be influenced by availability, representativeness and anchoring when evaluating business opportunities and that they often rely on hunch and intuition. This needs to be balanced with evidence suggesting that SMEs are more risk averse than larger businesses (because of limitations in their ability to process and analyse information objectively). The relationship between business size and risk perception, or tendency

towards any other cognitive bias is not a simple one and available evidence does not allow this to be determined with certainty.

Social drivers

A distinction can be made between taskwork (the skills involved in the execution of a task) and teamwork (the social processes that regulate interaction among group members). Social interactions therefore play an important role in the functionality of a team independent of the collective skillsbase of the group.

Competition is an important driver of behaviour for groups. Intergroup relations are significantly more competitive and less cooperative than interpersonal relations. Compared with decision-making as individuals, laboratory results showed that people trust less and reciprocate less as group representatives. Organisations are likely to operate strategically in relation to one another; the extent to which groups of decision-makers do so is determined by the extent to which they expect their competitors to behave strategically. This ties in with the finding that peer influence can occur between, as well as within, organisations: the prevailing local business climate can have a powerful influence on a firm's (mis)behaviour.

In seeking advice from others, organisational decision-makers give more weight to advisors who they see as similar to themselves. However, the best predictor of an advisor's influence is the level of confidence attributed to them. Advisors who have been correct in the past or who have more information at their disposal are given more weight than advisors with less accurate records. A possible implication of the above finding is that when in-house advice is poor, autonomous decision-making by individuals in organisations may offer advantages. This situation possibly also presents an opportunity for an external 'nudge' to have a positive influence.

In a real-world context, different agents may be pursuing their own personal interests rather than the organisation's interests. The resulting conflicts of interests often come at the expense of organisational efficiency. Agents with vested interests in the status quo may have an incentive to block change, even when this would benefit the organisation as a whole. Groups perform best when led by those who are cooperatively inclined. This finding is taken to suggest that groups may perform better when led by individuals who are willing to sacrifice personal benefit for the greater good.

'Groupthink' is a noteworthy phenomenon that runs counter to theories predicting superior decision-making in groups compared with individuals. This is associated with the scenario of a highly cohesive group being led by a strong leader who is pursuing a course of action that is clearly unethical or simply failing. An apparent contradiction between the hypothesised negative effects of groupthink and the attenuation of incorrect cognitive biases demonstrated in group experiments is not addressed directly in the literature identified for the present review.

Status (especially when status cues are salient) may cause individuals to adopt different, ie lower, standards of behaviour. This suggests that in the absence of penalties, high status can drive unethical behaviour. There is some evidence, however, that fairness is an important driver: experimental work indicates that it can be a central anchor for managerial decisions in ethical-dilemma situations.

Cultural drivers

From an evolutionary perspective, structured organisations have come into being because achieving 'spontaneous consensus' is not possible with large groups, and conducting a series of 'palavers and negotiations' is too time-consuming. Hierarchically governed groups are able to make decisions faster and more coherently than disorganised collections of individuals. Within coordinated groups, social norms and reciprocity form important functions such as preventing deviant behaviour which could ultimately be harmful to the group as a whole. Explanations at this level highlight the key role of within-group norms in driving organisational behaviours. This viewpoint also suggests that, compared with individuals, organisations in general will be difficult to 'nudge', particularly those where behavioural norms are highly entrenched.

Studies of corporate culture stress the importance of 'shared norms, values and a common vision' and there is a high premium for firms that are able to induce non-self-interested internal cooperation. The most effective tool to bring this about is the formation of corporate identity; this in part explains the power of very large organisations and the potential challenges associated with 'nudging' them.

In shaping the organisational culture and the ethical climate prevailing in a corporation, ethical leadership and the 'tone of the top' are said to be the most powerful factors. A change of heart (or mind) at chief executive or board level is therefore likely to have repercussions across the whole organisation. Ethical decision-making is not solely driven by moral concerns: other important drivers can be consumer pressure and public perceptions (eg bowing to social pressure to avoid reputational backlash). Legacy may be another significant motivator for ethically responsible behaviour. In influencing organisations to behave more ethically, two kinds of drivers have been identified (and can potentially be tapped into): those that are more sentimental and 'feelings-based' or those that are more utilitarian or 'rational'.

Managers are perceived as having their own styles which can determine the nature of their investment, financing and other strategic decisions. Demographic factors may be relevant, such as age and education; older managers may be less prone to risk-taking and have a less aggressive approach more generally. In family firms the influence of the founder on the decision-making processes and on the firm's culture and strategic vision is often highly significant.

There is a small amount of evidence indicating that the gender composition of a team influences the process (although not necessarily the outcome) of decision-making. There is some evidence that women encourage participation by soliciting input from others, and sharing power and information. It is also apparent from the literature that the generalisable principles guiding management decisions need to be slightly adapted when different cultural backgrounds are involved. Value systems which guide decision making decision-making may differ from one culture to another: for example, the meaning of concepts such as 'right', 'wrong' or 'justice' may differ. Concerns have been raised that behavioural economics research has tended to ignore the role of cultural differences in financial and economic decision-making.

What evidence exists which tell us about the underlying drivers behind organisational decision-making?

In regard to this topic, a diverse and extensive evidence base across a number of disciplines exists, only a proportion of which, for pragmatic reasons, could be included in the current review. The behavioural economics literature provides a rich source of data as do sources originating within social psychology, organisational psychology and management sciences. To an extent these sources fill an apparent gap in the modern 'nudge'-type literature, ie recent models of behaviour produced for the purpose of understanding and influencing behaviours are principally oriented towards individuals making decisions for themselves (and possibly their households). In some respects, however, the evidence lacks cohesion, in particular there is a disjoint between the numerous laboratory studies which study group behaviour (designed to be context free) and observational studies of organisations which focus on contextual or 'real-world' factors.

How robust is this literature?

The REA methodology was designed with the broad aim of identifying and retaining sources of evidence considered robust and rejecting those that were not. However, inevitable difficulties arise when determining a coherent and consistent set of conclusions from a multidisciplinary evidence base where different definitions of robustness may be present. Generally it can be assumed that with respect to the particular research question(s), the literature sources cited in the REA present robust findings. The extent to which the conclusions of this REA are robust – as with all reviews of this type – reflects the scope and depth of the review: further more in-depth reviews of particular areas or field testing would be required to ascertain this.

What are the insights from this literature?

The following principles are well-evidenced:

- Organisations are more cognitively sophisticated than individuals, and internal decision-making processes can mean they are often better at slower, more rational thinking than individuals.
- Organisations are more competitive and self-interested than individuals. Organisations acting as a group tend to show less trust in other groups than they would as individuals. Entrenched, cultural norms in established organisations may make them resistant to being 'nudged'. This may have implications for government in trying to influence group behaviour. For example, intermediary organisations may be better placed to do so on their behalf.
- However, the evidence base also suggests the nature of decision-making in organisations is highly context-dependent; ie to some degree, biases in thinking associated with individuals do influence organisational behaviour, especially when decisions are made autonomously by a leader or manager.
- The literature is also suggestive (although not directly) of the existence of a possible 'spectrum' of decision-making types across and within organisations, ranging from 'individual-like' to 'group-like' behaviour. Structural factors (such as organisation size, shape, sector and decision

topic) are likely to be important variables in predicting the conditions which do and do not give rise to particular biases and distortions.

- There is a possibility that decision-makers in particular situations (eg just as businesses start up) or in particular contexts (where fast decision-making is required) may be particularly susceptible to biases in thinking. It is also possible that ‘windows’ of opportunity exist to influence the behaviour of organisations depending on the timing of the intervention and the perceived credibility of the influencer.

As a result of the predominantly academic orientation of the reviewed literature, the drivers of organisational decision-making can be determined more clearly than *the means by which an external party could utilise these drivers* to exert influence. However, in providing a focussed summary of a diverse and complex mix of high-quality evidence sources, this report offers an informed and comprehensive summary to support policymakers in applying behavioural insights to their work with organisations.

Generalisability of insights by sector/size/type

The focus of the available academic literature meeting the criteria for this review appears to be strongly oriented towards behavioural drivers of profit-making organisations. Although the REA’s search terms and sift strategies were developed with the aim of being inclusive of material that could be applied to the public sector, in practice the ability to do this was constrained by the nature of the literature reviewed: academic research that is ostensibly focussed on organisations in a generic sense tends – on examination – to be more applicable to profit-making entities. There is also a tendency for authors discussing organisations to assume the structures common to large companies are found in all environments. The evidence base selected for review also has very little to offer in the way of insight into business-to-business (B2B) influences.

Within this caveat the range of applicability is still likely to be broad. As a result of the exclusion criteria used for the academic documents included in this REA, there was a strong bias towards sources reporting generalisable insights. Many reported findings (particularly those conducted in an experimental setting) are intended by their respective authors to be applicable to all types of organisation; there is no reason, for example, why experimental lab studies examining small-group decision-making should not be relevant to groups of decision-makers working in the public sector or small businesses. However, caution should always be applied, as when applying all findings obtained in controlled environments to address real-world issues.

Optimal moments for working with organisations

There is a possibility that decision-makers in particular situations (such as a business startup) or in particular contexts (where fast decision-making is required) may be particularly susceptible to biases in thinking. There is also a possibility that ‘windows’ of opportunity exist to influence the behaviour of organisations depending on the timing of the intervention and the perceived credibility of the influencer.

The birth of a business represents a special case in the sense that entrepreneurs generally face considerable risks at the point of startup. It has been observed that ‘plunge’ decision-making can be required at this stage, which involves acting on intuition and hunch (ie ‘fast thinking’ as opposed to ‘slow thinking’). This raises the

possibility that this early stage in the life of a business may be a good time to introduce a 'nudge'; this insight may be more pertinent to sectors where there is a lot of business startup activity, compared with those populated by mostly established firms.

Who to target for organisational change interventions

A key consideration is whether it is more or less effective to target specific individuals within an organisation or to treat the organisation as a collective group.

Our evidence suggests a change of heart (or mind) at chief executive or board level is likely to have repercussions across the whole organisation. However, an important aspect of organisations is that they are groups, so decisions are likely to be made by (as well as on behalf of) more than one person. Deputies, boards and middle management may be involved in, consulted on, or potentially lead decision-making, depending on the nature of the decision.

Knowledge of the structural aspects of targeted organisations (for example their size, shape and coordination setup) is important in making any judgement about who to target and how. Thinking beyond size and sector appears to be important: for example, organisational shape will have implications for the nature of internal communications and the influence of individuals in particular roles.

Glossary

Affect	The emotional aspect of human functioning that is held to be a key driver of individual behaviour. Affect is seen to be both positive and negative, ie it can push people forward, but also hold people back.
Anchoring	Anchoring is a cognitive bias that describes the common human tendency to rely too heavily on the first piece of information offered when making decisions. During decision-making, anchoring occurs when individuals use an initial piece of information to make subsequent judgements.
Behavioural drivers	Drivers that influence organisational decision-making and change which do not centre on fiscal incentives or penalties, or on direct means of regulation.
Bounded rationality	Reflects the (unavoidable) constraints on human information processing that occur as a result of: (i) the limited and often unreliable information at hand regarding possible alternatives and their consequences; (ii) the cognitive limitations of the mind to process and analyse the available information; and (iii) the limited amount of time available for the individual to make the decision. These limits experienced by the individual when making a complex decision mean that it is almost impossible to plan for every intended or unintended outcome.
Cognitive drivers	Drivers of decision-making that result from 'irrational' thinking and arise from, for example, mental shortcuts (heuristics) and unconscious biases.
Cultural drivers	Drivers of decision-making that arise from one's identity as a group member or leader and the norms within that group.
External factors	'Fixed' features of the external environment that constrain the way organisations operate. These include regulatory obligations and market forces.

Groupthink	A psychological phenomenon whereby members of a group will engage in 'irrational' behaviours, making non-critically judged decisions in order to minimise conflict and reduce tensions, often with the desire for conformity.
Heuristic	A 'rule of thumb' or a means of making a decision based on experience rather than pre-programmed rules. Heuristics do not follow any pre-established formula, but might consist of 'trial and error' learning or relate to past experience of similar experiences.
Hidden profile	A paradigm whereby part of some information is shared among group members (ie all members possess this information prior to discussion), whereas other pieces of information are unshared (ie information known to only one member prior to discussion). Furthermore, shared information and unshared information have different decisional implications, and the alternative implied by the unshared information is the correct one given all information available to the group. However, no group member can detect this best solution on the basis of her/his individual information prior to discussion; it can only be found by pooling the unshared information during group discussion.
Messenger	Refers to the person or people communicating information. The MINDSPACE model highlights the influence of the messenger when making decisions, taking into account who we trust and who motivates us. Messengers can operate at different levels, eg socially (through peers), locally and nationally through organisations or government, and globally through media or government.
Organisational factors	Internal reporting systems and structures that constrain or dictate the process by which decisions are made.
Social drivers	Drivers of decision-making made by (or on behalf of) groups that result from interpersonal dynamics of 'teamwork'.
Structural factors	Environmental factors that constrain the way organisations operate. These include regulatory obligations, market forces and internal reporting systems and structures.
Winner's curse	The assumption that the value of an item won at auction is worth the same to all bidders, and that this value is given a relative market value by each bidder. Based on the average amount being a representation of the object's worth, the winner of an auction has overestimated, and therefore paid more than, the object's worth.

Contents

Policy context	1
Methods and approach	1
Findings of the REA.....	2
Structural factors	2
Cognitive drivers.....	3
Social drivers	4
Cultural drivers	5
What evidence exists which tell us about the underlying drivers behind organisational decision-making?	6
How robust is this literature?	6
What are the insights from this literature?	6
Generalisability of insights by sector/size/type	7
Optimal moments for working with organisations	7
Who to target for organisational change interventions.....	8
Policy context	18
Approaches to understanding organisational behaviour	18
Behavioural drivers of individual decision-making	19
Organisational behaviours in specific policy contexts	20
Research questions.....	21
Rationale for approach	23
Elements of the review process.....	24
Scoping.....	24
Search terms	24

Search engines.....	25
First sift.....	26
Second sift.....	26
Consideration of additional sources.....	27
Data extraction, synthesis and reporting	27
Structure of the report.....	27
External factors.....	29
Business size and sector	30
Regulatory environment.....	33
Corporate image and CSR	36
Sensitivity to stakeholders and shareholders.....	36
Organisational factors.....	37
Organisational structure	38
Coordination and communication	39
Conflicts of interest and misaligned incentives	40
Internal organisational responsibilities.....	41
Cognitive drivers.....	45
The organisation as an actor	46
The organisation as a group	53
Social drivers	54
Decision-making with a social component.....	55
Discontinuity, group rivalry, competition and cooperation.....	56
Information-sharing.....	58
Uptake of advice.....	59
Groupthink.....	61
Leadership.....	62
Cultural drivers	67
Formation of organisations and corporate identity	68
Business ethics and corporate social responsibility.....	70
Demographic factors	75
Cross-cultural issues	76
What evidence exists which tell us about the underlying drivers behind organisational decision-making?.....	79

How robust is this literature?	79
What are the insights from this literature?	80
Structural factors	80
Cognitive drivers.....	81
Social drivers	82
Transferability of insights	84
Generalisability of insights by sector/size/type	84
Business-to-business activities	85
Optimal moments for working with organisations	85
Who to target for organisational change interventions.....	85
Possible limitations of the evidence base	86
References obtained via REA search or via recommendation from academic partner	87
Background literature and references provided by steering group members.....	93
Annex A: Methodological documents for search, sift and data extraction stages	96
Research criteria employed in sift for quality of academic papers	96
Inclusion criteria for first sift	97
Data extraction template.....	99
Results of sift stages (academic literature identified by search)	101
Annex B: Examples of behavioural change models.....	104
COM-B.....	104
Behavioural Change Wheel.....	105
Annex C: Examples of behavioural economics approaches	106
Examples of experimental setups	106
Individual and group decision-making under risk.....	106
The ‘dictator’s game’	107
The weakest link game	108
Annex D: Taxonomy of factors identified in the REA	109
Annex E: Stakeholder consultation	110
Overview of fieldwork approach.....	110
Key insights	110
General insights.....	110
Behavioural factors.....	110

Structural factors	111
Social factors	111
Leadership.....	112
Generalisability of insights	113
Optimal moments for working with organisations	113
Who to target for organisational change interventions.....	113
Annex F: Organisational case studies	115
Aims of the case study fieldwork	115
Organisational shape and structure.....	115
Delegation and autonomy.....	116
Hunch and intuition.....	118
Consultation with boards and stakeholders	118
Uptake of advice.....	119
External influences on organisational decision-making	119
Examples of decision-making processes.....	120

ORGANISER Links

This Understanding the Behavioural Drivers of Organisational Decision-Making: Rapid Evidence Assessment (REA) was the basis for the development of the ORGANISER approach. This approach drew out common insights from the REA and produced a practical user-centred output for for cross Government policy development, service delivery and communications. The [ORGANISER approach can be found here](#). The below table provides hyperlinks to sections of the REA most relevant to each of the ORGANISER themes.

Theme		Links to relevant sections in REA
External	O perating environment	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 , 20
	R elationships	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15
	G aining advantage & reputation	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15 , 16 , 17 , 18
Internal	A ims	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 ,
	N orms & organisational culture	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 , 20
	I nternal structures	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 , 20 , 21 , 22 , 23 , 24 , 25 , 26 , 27 , 28 , 29 , 30 , 31 , 32 , 33 , 34 , 35 , 36 , 37 , 38 , 39 , 40
Decision-making processes	S trategic processes	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 , 20 , 21
	E stimation	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 , 20
	R elying on trusted sources	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15

1)

Background and research requirements

The review described in this report has been produced in response to a specified need to identify and understand the generalisable/common behavioural factors which explain organisational behaviours and influence organisational decision-making and change. This chapter explains the policy background and specific requirements of the work.

Policy context

The Government has set out a desire to cut red tape for business, and a 'one in, two out' rule for business regulations forms an explicit part of the Department of Business, Innovation and Skills (BIS) policy. The prospect of less reliance on regulation and legal levers requires governmental departments and agencies to influence the behaviours of organisations via other means¹. A need has been identified to understand the generalisable/common behavioural factors which explain organisational behaviours and influence organisational decision-making and change, and in particular those influences that do not centre on fiscal incentives or penalties or direct means of regulation such as inspections or reporting requirements.

Approaches to understanding organisational behaviour

A particularly complex aspect is that organisations present a scenario where multiple individuals work and interact, often with conflicting interests. Behavioural proponents of the Theory of the Firm (eg Cyert and March, 1963) argue that the firm cannot be regarded as a monolith because different individuals and groups within it have their own aspirations and conflicting interests, and the firm's behaviour is the weighted outcome of these conflicts. Whether organisations make better decisions than individuals is therefore a matter of some debate.

¹ <https://www.gov.uk/government/policies/reducing-the-impact-of-regulation-on-business>

Behavioural economics is concerned with replacing the useful but idealised assumption of perfect rationality with more realistic models, consistent with what is known from psychology, neuroscience and sociology. To achieve this goal, the discipline of behavioural economics uses evidence from psychological studies on the limits of computational ability, willpower, and the influence of emotions such as envy, guilt and moral obligation on individual behaviour. Traditionally, behavioural economics has relied (and to a large extent continues to rely) heavily on laboratory data. Experimental control is exceptionally useful for distinguishing between different explanations as it allows individual effects to be singled out.

The general idea is that, to gain a proper understanding of the mechanisms at play, behaviour should be dissected into separate drivers (reputational concerns, emotional reactions to unfairness, etc.) by teasing out each of them in isolation. These separate drivers are then assembled together to derive empirical predictions in different environments.

Behavioural drivers of individual decision-making

Behavioural change principles have been popularised recently through ‘nudge’ theory (Thaler and Sunstein, 2008) and form the core of the understanding of human behaviour represented in recent evidence-based guidance from the Cabinet Office². The MINDSPACE framework brings together ‘nine of the most robust (non-coercive) influences on behaviour’, as recognised in behavioural economics, and supplemented by insights from psychology and sociology. It is intended as a checklist for policymakers of the most important influences on behaviour. These influences provide initial letters for the acronym MINDSPACE: Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitment and Ego. MINDSPACE is said to position behavioural insight within the existing policy process, so that behavioural insights inform policy development rather than generate additional ‘behaviour change’ interventions.

Other frameworks of behaviour change have been described (eg Darnton, 2008)³ with different emphases and/or intended applications. These include COM-B, which aims to ‘characterise interventions and link them to an analysis of the targeted behaviour’ (see Annex B). This forms the hub of a ‘Behavioural Change Wheel’ (BCW) around which are positioned the nine intervention functions aimed at addressing deficits in one or more of these conditions; around these are placed seven categories of policy that could enable those interventions to occur. The BCW was used reliably to characterise interventions within the Department of Health’s 2010 tobacco control strategy and the National Institute of Health and Clinical Excellence’s guidance on reducing obesity.

The emphasis in the application of the above frameworks has been on achieving change at individual level. However, achieving success in many policy areas centres on bringing about changes at organisational level.

² <http://www.instituteforgovernment.org.uk/sites/default/files/publications/MINDSPACE.pdf>

³ Darnton, A. (2008). GSR Behaviour Change Knowledge Review – Practical Guide: An overview of behaviour change models and their uses

Organisational behaviours in specific policy contexts

Research conducted within specific policy areas has shown that a diversity of influences act on organisational behaviour.

For example, in food safety, behaviours around compliance are subject to a range of cultural and behavioural issues. An evidence review led by the Institute for Employment Studies for the Food Standards Agency (Wilson and Miller, 2015) showed that the threat of punitive enforcement action is just one factor among others that drive compliance with hygiene regulations in food outlets. The report sets out how structural (eg organisational size, sector, turnover, and supply chain position) behavioural (eg communication, reporting procedures) and cultural (attitudes and beliefs) factors should all be considered by policy makers.

A recent HMRC evidence review⁴ identifies a number of (individual-level) factors that explain differences in what is described as tax aggressiveness of businesses. The authors note that this should be seen as indicative of 'potential wider behaviour'. Alm and McClellan (2012) examined factors that influence the tax morale (the intrinsic motivation to pay taxes) and the subsequent compliance behaviour of firms. A key point that emerged was that tax morale considerations apply to both individuals and firms, so that policies directed to individuals should have similar effects on firms. However, it is noted that individuals and firms are not to be seen as one and the same, and although it is understood that tax morale is roughly similar at individual and firm level, it is argued that as an organisation grows in size, the opportunities for reputation risk (eg as a result of tax avoidance) will increase.

Williams and Schaefer (2013⁵) argue that ethical and ecological values, emotions and commitment are what come to the fore in driving owners to take action on environmental issues, rather than being solely convinced by a cool-headed cost/benefit calculation. With reference to engagement in low-carbon transitions, North and Nurse (2014) highlight that unless (smaller) business owners have curiosity, enthusiasm, commitment and sufficient funds, they can be reluctant to invest in untried, potentially risky, new technologies. Respondents pointed to the difficulty of changing cultures and behaviour in the face of the force of habit and established business practices. A tendency was noted for businesses to operate to a rhythm or timetable and/or business plan, with production or delivery deadlines that cannot be disrupted. This means that changes in technology or processes are only possible at set times. If these are missed, the opportunity can be lost.

An evidence base review conducted for the Department for Transport found that organisational factors, especially the corporate mission, structure of the organisation and management values, are viewed to be more instructive than external factors to understand why specific businesses behave as they do (Anable et al., 2014). For example, the organisational drive to reduce losses is greater than the drive to increase gains and this has been noted in the transport policy literature (Anable et al. 2014). Pangbourne et al. (2014) also found that the most common motivation for adopting more sustainable transport and travel practices is the ability to control, manage and reduce costs.

⁴ <https://www.gov.uk/government/publications/small-business-and-choice>

⁵ Cited in North and Nurse (2014)

Regarding the public sector, a recent paper considers how to influence local delivery partners to deliver behaviour change initiatives (Marsden et al., 2009). Local delivery partners considered included local authorities, primary care trusts, education authorities, schools and general practitioners. (For some of these budget maximisation can be viewed as a more appropriate substitute for profit.) The importance of capitalising on changing norms or opportunities was highlighted. According to the authors, local delivery partners will engage most in generating or taking up ideas in areas which have a strong policy fit with their historic and/or current local priorities.

A Department for Transport (DfT) thinkpiece suggests SMEs may be harder to engage than larger organisations due to time and resource constraints (lower profit margins and limited access to capital). As a result, they are more motivated by 'action focused' initiatives, eg provision of practical toolkits to help implement change (AECOM, 2009). Distrust of government is also seen as a characteristic of smaller businesses.

Taken together these findings raise the question of whether there are any underlying factors which explain organisational behaviours and influence organisational decision-making and change that are generalisable across policy areas. This review sets out to establish the nature of these factors by searching a broad evidence base of high-quality sources, with the aim of addressing the set of research questions listed below.

Research questions

The following questions were set out in the original specification for this work. The final chapter of this work, which provides a summary of the review's main findings, makes explicit reference to each of these.

Key questions

- What does the existing evidence tell us about the behavioural factors which explain organisational behaviours and influence organisational decision-making?
- Are any of these insights (i) generalisable across multiple organisation types, and (ii) utilisable by those seeking to influence organisations' behaviours and/or decision-making?

Complete list of questions

- What evidence exists which tells us about the underlying drivers behind organisational decision-making?
 - o How robust is this literature?
 - o What are the insights from this literature?
 - o How transferable are the insights?
 - o Along what lines can the insights be generalised (eg by sector/size/type)?
- What can business-to-business practices/literature tell us about how businesses seek to influence other businesses?
 - o Can these insights be useful for government?

- o On what lines can the insights be generalised (eg by sector/size type)?
- Are there optimal moments at which insights from the literature become more or less effective?
 - o In the lifecycle of a business (eg birth/incorporation stage, growth stage, mature stage)?
 - o In the business cycle (ie the cyclical fluctuations in GDP)?
 - o In a financial year?
 - o Other?
- Is it more or less effective to influence specific individuals within an organisation, or to treat the organisation as a collective group when attempting to influence?
 - o Are there individuals, or combinations of individuals, with whom it is more or less effective to influence within an organisation?
 - o How does this differ depending on the topic (eg environmental issues, access to finance, business support)
 - o Does this differ depending on organisational size/sector/type?
 - o How do these insights inform how we try to influence organisations/individuals?

The next chapter details the methodological approach adopted to address these questions.

2) Methodology

This chapter describes the methodological approach to this review and describes the processes undertaken to search multiple databases, sift through the sources yielded and extract data from those sources considered to be both high quality and relevant. The aims and rationale for each of these steps is described in detail.

Rationale for approach

The methodological approach to this review was designed to meet the challenge of identifying high-quality sources containing evidence that was both (i) relevant to the main research questions and (ii) acceptably generalisable to multiple policy areas. The methodology was developed in an iterative nature to enable the research team to 'drill down' to the evidence considered central to the key questions for the research.

In practice the review followed the principles of a rapid evidence assessment (REA): adopting a systematic approach to the search process supplemented by a more flexible use of sources suggested by the research consortium's academic partner and members of the steering group¹. The requirement to consider 'grey' as well as academic sources was an important consideration, as was the aim to draw from multiple research disciplines and areas of theory.

¹ The project was sponsored and funded by multiple government departments and agencies, each with a representative on the steering group.

Elements of the review process

The academic evidence search was conducted in a rigorous replicable manner and the details of each step were fully documented to allow the methodology to stand up to scrutiny and future replication. The steering group were consulted at key decision points.

The following sections describe the methods applied to identify papers originating in relevant academic domains. There were exceptions made to this for the following categories of material:

- papers identified as key/seminal by our academic partner
- reports referenced in the ITT
- literature provided by the steering group.

Those sources were ‘fast-tracked’ to the data extraction stage so they could be simultaneously screened and examined for pertinent evidence.

Scoping

At a very early stage consideration was given to the scientific disciplines and academic approaches that would yield suitable evidence. A key aim was to go beyond behavioural economics and into areas where group behaviour and commercial decision-making are central. The multidisciplinary nature of the research team ensured that a wide range of potential evidence sources could be considered.

Exploratory searches were conducted to confirm that the proposed strategy yielded (i) a sufficient number of documentation of interest, and (ii) a realistic number of these to sift/review. A decision was reached to restrict the date range of the searches from 2004 onwards² and also, in order to maximise transferability of findings, to restrict the geographical origin of publications to OECD countries.

Search terms

Following discussion within the consortium and consultation with the project steering group, the search terms listed below were adopted. These were used in conjunction with AND/OR Boolean operators employing ‘wildcard’ characters and alternative spellings where applicable.

² A ten-year timeframe was viewed by the consortium’s academic partner as sufficient to capture recent significant developments in relevant academic fields. The inclusion of review papers provided an additional means of ensuring that influential publications pre-dating that period were represented in the evidence considered by this REA.

Table 1.1: Search terms employed

Primary search terms	Secondary search terms	Tertiary search terms
Decision-making	Business*	Behaviour* OR
Behavioural Economics OR	Employer*	Behavior*
Behavioral Economics	Organisation* OR	
Theor* of the firm	Organization*	
Regulat*	Team*	
Complian*	Enterprise*	
Choice	Firm	
Motiv*	Workplace	
Motiv*	Business-to-Business	
Influencer*	Local authorit*	
	Agenc*	
	Service provider*	
	Corporat*	

Source: IES, 2015

Search engines

The academic search engines listed below were selected on the basis that, collectively, these would span a wide range of research disciplines. In order to ensure that a manageable number of hits were obtained in most cases, the search field was restricted to 'title'³.

Table 1.2: Academic search engines employed

Name of database	Description
Business Search Premier	Business Source Premier is a business research database that provides full text for more than 2,300 journals, including full text for more than 1,100 peer-reviewed titles (EBSCO database).
Google Scholar	Web-based search engine for academic sources,
IBSS	International Bibliography of the Social Sciences – indexes material on economics, sociology, politics and anthropology.
INGENTA	IngentaConnect – gives access to over 28,000 academic and trade journals across a wide range of subject areas.
JSTOR	An archive of electronic journals which currently provides access to more than 200 scholarly titles in over 20 disciplines in the Arts and Sciences.
PsycINFO	Areas covered include psychology and psychological aspects of related disciplines, including education, psychiatry and medicine (EBSCO database).
ScienceDirect	Provides access to over 2000 journals published by Elsevier covering mainly science, technology and medicine, with some management and social sciences.

³ Limits to all searches: Language, English Publication year 2004- 2014
Note that default search field was 'title'.

Name of database	Description
Web of Knowledge	This service provides access to the Web of Science which provides access to Arts & Humanities Citation Index, Social Science Citation Index and Science Citation Index.

Source: IES, 2015

First sift

In total, following exclusion of duplicates, more than 1,500 academic documents were sifted for surface relevance. A proforma was developed to ensure a consistent approach to this across the research team. Where obvious, papers were excluded on the basis of title. In most cases screening proceeded on the basis of abstract and, where relevance was uncertain, title and abstract. All remaining documents were retained for the second sift process (see Annex A for details).

Second sift

In order to ensure that the vast amount of literature remaining was processed in an efficient yet rigorous manner, the second sift process comprised three distinct stages.

Quality

The first of these steps was centred on prioritising high-quality peer-reviewed sources from relevant research areas⁴. In anticipation that subsequent steps would require a resource-intensive level of scrutiny that drew upon the specialist skills among the team, stringent quality criteria were applied to enable the review to focus on the most influential and impactful findings. In order to provide an objective means of achieving this, the Association of Business Schools (ABS) Guide was employed to 'filter' material identified in the search. Advice was sought from the consortium's academic partner on the core disciplines of study viewed as informative to the research questions. Academic material was retained only if it was listed under those headings in the Guide (see Annex A for a list of these).

As another quality control measure, sources published in journals scoring lower in the ABS guide (those graded 1-2) were excluded and those graded at the highest levels (ie those graded 3-4⁵) were retained for step two. This served to ensure that the investigation was focused primarily on rigorous approaches and generalisable data.

Generalisability

The next step involved grading each retained source according to 'generalisability'. A key consideration for this REA was that, as far as possible, reported findings should be applicable to different organisations and different topic areas. The various criteria are shown in Annex A.

Papers scoring '4' and '5' were retained for the next step. The decision to retain papers scoring 4 ensured that evidence judged generalisable to different decision

⁴ The research areas considered relevant are listed in Table A.1.0 in Annex A.

⁵ University departments are evaluated on the number of articles published in 3 and 4* ABS journals, an indication that these are universally seen as outlets for the highest-quality research.

topics, yet specific to a particular type of organisation (such as SMEs or public sector organisations), were not automatically excluded.

Relevance

Finally, the remaining sources were scored for applicability to the main research questions (see Annex A for criteria). The 85 papers which attained scores '4' and '5' were retained for full review.

Consideration of additional sources

To manage the risk that the exclusion criteria had resulted in key sources being missed, papers considered for review were supplemented by:

- sources identified as key/seminal by the consortium's academic partner (this included discussion papers produced by the members of the Centre of Decision Research, and Experimental Economics state of the art papers)
- reports referenced in the ITT and in the consortium's full proposal
- literature provided by the steering group and DECC's expert peer reviewer (this included 'grey' sources such as discussion papers and thinkpieces).

These documents were automatically retained for review with the basic aim of extracting relevant and potentially generalisable findings for potential inclusion in relevant sections of the report (with the proviso that thinkpieces and discussion papers were identified as such).

Data extraction, synthesis and reporting

A data extraction matrix (as shown in Annex A) was designed to ensure a rigorous systematic approach to extracting and collating relevant findings, with column headings corresponding to key variables and themes. This enabled researchers to code each document according to its type (academic or 'grey', publication date, 'R' and 'G' scores, discipline of origin, methodological approach). Key details such as how the document was sourced (academic search, steering group recommendation) and publication details were also recorded. Data extraction proceeded using this matrix format, in which the extracted data was recorded in further columns with headings approximating to the main and secondary research questions. This enabled researchers to extract (i) evidence directly pertinent to each question, and in doing so (ii) determine the extent to which, collectively, across the evidence base as a whole, particular questions were directly addressed.

A draft report structure was initially determined in consultation with the project's academic partner; expert knowledge of the research area was drawn on as a starting point for this, with steering group input. Subsequent iterations of this structure were developed in a data-driven manner, to allow emergent themes under new headings and subheadings to be added while maintaining a coherent narrative.

Structure of the report

The main body of the report comprises two chapters which provide a thematic narrative on extracted data; these are followed by a final chapter which provides a summary of emergent messages: ie the ultimate output of this REA.

In Chapter 3 the first set of findings provides an overview of structural factors that affect organisational decision-making. This is intended primarily to provide context to the behavioural findings which form the main focus of the review. The structural factors include those that emerged from the reviewed literature as potential modifiers of behavioural drivers, as well as those considered integral to any study of organisational behaviour (eg as indicated in relevant background literature and/or referred to in the secondary research questions).

The primary findings of this review are presented in Chapter 4, which provides a full account of behavioural factors. These are separated into 'cognitive', 'social' and 'cultural' factors (the distinction between these is made on the basis of clarity rather than an accepted taxonomy). This structure is intended to ensure that findings from differing disciplines of research are fully integrated rather than separated.

The methodological approach of referenced work is flagged in the text where relevant; corroborating sources, where present, are also flagged. The reported findings should be interpreted with the limitations of this 'wide yet selective' REA exercise in mind. Although quality has been a key consideration in the criteria for inclusion, the reported findings cannot be assumed to be the 'last word' on a particular issue; the scope of this evidence review does not permit an exhaustive approach.

A number of research tools and documents are provided as Annexes to this report. Alongside material directly associated with REA, further documents are included which detail the broad aims and findings of supplementary fieldwork intended to complement the REA and 'sense-check' its conclusions. This work comprised consultation with expert stakeholders and organisational case studies, conducted as part of a broader exercise to further develop the insights from this REA for use in a policy context.

3)

Structural factors

The structural factors that drive organisational decision-making are relatively well-established. An overview of these is provided in this chapter with relevant observations from the reviewed literature. This overview serves primarily to provide context: the primary findings of this review are presented in the next chapter, which provides a full account of behavioural factors.

A number of 'fixed' or structural characteristics place constraints on the way organisations operate. These include regulatory obligations, market forces and internal reporting systems and structures. A relatively brief discussion of these characteristics is presented here to provide context to the main findings from the review which are presented in Chapter 4. The issues described here help illustrate:

- why organisational decision-making is different from that of individuals
- how organisations differ from each other; this has potential consequences for the generalisability of findings reported in the next chapter.

It should be noted that a comprehensive examination of structural factors and their relative importance falls outside the scope of the current review. However, the diversity of organisations and the environments in which they operate merits consideration and underlines the general point that a 'one size fits all' approach to influencing organisations would be over-simplistic.

External factors

Summary:

- The relative importance of behavioural drivers will vary according to organisational factors such as size and main activity. Other key considerations are ownership/governance and market share of organisation and its concern for reputation based on degree of visibility to the public.
- Research on motivations to comply with regulation suggests that smaller businesses place more importance on economic drivers (eg avoiding penalties, meeting insurance requirements). Larger

companies were most likely to factor in 'maintaining reputation with customers' and 'protecting staff, customers and the environment'.

- However, within the SME sector, significant differences can exist between businesses employing 250 people and those which employ five: SMEs may require approaches based on disaggregation (segmentation).
- There are important intersectoral differences also: for example, supply chain requirements as a driver for compliance has greatest salience in industries such as construction, manufacturing, retail/distribution and transport.
- The distinction between private and public sector organisations is clearly an important one, as is ownership/governance structure.
- As might be expected, the prospect of a competitive advantage is proposed as a motivating factor for businesses operating in the private sector.
- The drivers (if any) that are specific to public sector organisations have received comparatively little attention although to some extent, like private sector organisations, they are budget-maximising entities and there can also be a drive to innovate.
- Businesses have become increasingly motivated by their positions on corporate social responsibility (CSR) rankings, which seek to reflect the businesses' ethical behaviour and attract considerable publicity.
- With respect to the public sector, public opinion matters for most policies and, when it matters, it is significant. The influence of public opinion increases with the saliency of the issue in question; low public acceptability can quickly undermine commitment to participate.
- Organisations will factor the reactions of stakeholders into many aspects of their decision-making; for example, those of shareholders (private sector) and the electorate (public sector).
- In high-level corporate decision-making, a drive has been noted towards decision processes that force increased transparency and disclosure of interests being served.

A number of 'grey' literature sources draw attention to the structural factors that influence organisational decision-making. For example, a DfT thinkpiece drawing together organisational behaviour research argues that the relative importance of behavioural drivers will vary according to organisational factors such as size, sector and 'raison d'etre'. Other key considerations are ownership/governance and market share of the organisation and its concern for reputation based on the degree of visibility to the public (Bonsall, 2009).

In considering the structural factors that impact on organisational decision-making, a distinction can be drawn between those that are 'external' (namely regulatory and market environment) and those 'internal' characteristics specific to the internal workings of an organisation. Marsden et al. (2009) highlight the need to consider both in understanding behavioural outcomes.

Some areas are not as easily separable. For example, corporate social responsibility (CSR) is arguably determined by the external forces and internal organisational culture. The latter are classed as 'behavioural' factors for the purpose of organising findings from the current review and are included in Chapter 4.

Business size and sector

Size

Particular challenges exist in engaging with SMEs to change their business practices. For example, regulation is viewed by, and impacts on, SMEs differently from how it

does on larger businesses. Larger businesses can usually absorb the costs of legislation more easily than SMEs, whether expressed in terms of earned recognition processes, director time, or product and process improvements (Angus et al., 2013).

A National Audit Office (NAO) study for BIS addressing motivations to comply with regulation suggests that smaller businesses place more importance on economic drivers (ie direct cost advantages of complying). Small¹ and medium-sized businesses were more likely than average to place greater importance on insurance requirements and avoiding sanctions. Larger companies were most likely to factor in 'maintaining reputation with customers' and 'protecting staff, customers and the environment' (NAO, 2014). Supply chain requirements, although less important overall, had greater saliency with regard to compliance among medium and large businesses. Indirect economic drivers such as community pressure, corporate/brand visibility and customer power are said not to affect SMEs in the same way they affect large firms: it has been suggested that it may be difficult to break a reliance on regulation for small firms because other drivers are relatively ineffective (Lynch-Wood and Williamson, 2007)².

Unlike the managers in large firms, SMEs tend not to have access to extensive information sources. The managers of large firms tend to be backed up by staff members who continuously scan the environment and gather information (Busenitz and Barney, 1997)³. Also, within the SME sector, significant differences can exist between businesses employing 250 people and those which employ five (AECOM, 2009)⁴. The authors recommended that policy initiatives aiming to engage this sector are developed according to a further disaggregation of SMEs.

The assumption that decision-makers in small firms share similar characteristics is challenged by a quantitative study indicating that most basic features of the decision-makers in small firms substantially differ. Gibcus et al. (2009) suggest a taxonomy of decision-makers based on cluster analysis of more than 600 survey responses from entrepreneurs (the sample was limited to firms with no more than 100 employees). They propose five types of decision-makers: 'Daredevils', 'Lone Rangers', 'Doubtful Minds', 'Informers' Friends' and 'Busy Bees' and highlight substantial variability among these, including the frequency of 'decision-making, innovativeness, the perceptions of bottlenecks, the dependence on other persons and the influence of the economic situation. The authors highlight a need to better understand the last of these and suggest it could be related to a wide range of factors, including market turbulence, technological development, scientific progress, institutional change or new legislation.

¹ In this context, organisations are considered 'small' with 10-49 employees, 'medium' with 50-249 employees and 'larger' with (250+ employees).

² Cited in Angus, A., Booth, C., Pollard, S., & Armstrong, G (2013)

³ Cited in Gibcus, Vermeulen, and De Jong (2009)

⁴ Note that the cited document represents 'considered opinions' of relevant experts in sustainability-related business engagement initiatives, and is not a high-quality source as defined for academic sources.

Business activity

On the basis of the small amount of material addressing sectoral differences reviewed in this RAE⁵, it would appear likely that the nature of business activity undertaken by a company is an important variable. For example, NAO's survey of compliance behaviours reported 'clear differences' between different industry sectors in the same study. Supply chain requirements as a driver for compliance had greatest salience in the areas of construction, manufacturing, retail/distribution and transport industries. Companies in the area of property management/business services were significantly less likely to rate any of the eight factors⁶ presented to them as 'essential' or 'very important', while companies in the areas of hotel/catering, retail/distribution, construction or transport were significantly more so. Technical and physical conditions, such as the differences between an accountancy firm and a mining firm, play a role in business decision-making, for example in relation to energy efficiency behaviour (Janda, 2014).

Interestingly, NAO (ibid) found that 90 per cent of companies in the area of finance highly rated 'doing the right thing' as important in their decision to comply with regulation. Declaring an intention 'to do the right thing', however, is not synonymous with doing so. Results from a survey of finance executives (Stevens et al., 2005) lead the authors to suggest that regulatory mandates such as those recently issued to use ethics codes may not be an effective means to constrain executive indiscretion. Although firms may be coerced to adopt ethics codes in response to regulatory pressure, they are more likely to become symbolic and not integrated into the decision processes of key executives.

Public vs private sector

The distinction between private and public sector organisations is clearly an important one. Whether a company is primarily commercial rather than a charity, community enterprise or 'hobby company' will be a key determinant of their susceptibility to influence as will ownership/governance structure (Bonsall, ibid). The latter will impact on the degree of autonomy an organisation has (eg does it need to consult head office) and its ability to respond to circumstances quickly. In considering the adoption of new initiatives, the prospect of a competitive advantage is proposed as a motivating factor for businesses operating in the private sector (Bonsall, ibid).

The drivers (if any) that are specific to public sector organisations have received comparatively little attention. In an evidence-based summary of factors influencing local delivery partners (Marsden and Bonsall, 2009)⁷, the following are identified as key:

- budget maximisation (with partners seeking to increase budgets where possible)

⁵ The scoring criteria resulted in many papers being sifted out that focussed on specific sectors.

⁶ In order of overall importance these requirements were: 'maintaining my reputation with customers', 'meeting insurance requirements', 'it's simply important to do the right thing/comply', 'protecting staff, customers and the environment', 'avoiding sanctions due to non-compliance', 'saving my business money', 'giving my business a competitive advantage' and 'maintaining supply chain requirements'.

⁷ DfT (2009) What works for engaging local delivery partners in behaviour change interventions.

- local policy fit (which influences how policies will be interpreted and accepted)
- the motivations of key employees (and politicians).

With regard to the latter point, the authors cite evidence that public sector organisations are populated with employees with higher levels of altruistic motivations and an implicit desire to represent a particular viewpoint (Rainey and Bozeman, 2000)⁸. They are however budget-maximising entities, albeit less so than private sector organisations (Niskanen, 1968)⁹.

The literature identified for the current review tends not to explore public sector organisations in depth, but it is likely there are commonalities as well as differences. For example, the desire to innovate is not exclusive to the private sector; some local (public sector) partners can be characterised as ‘innovators’ with respect to their propensity to develop or adopt new policies (Marsden and Bonsall, 2009). However a mismatch between policy and implementation environment is frequently responsible for policy failure rather than the policy itself, underlying the importance of considering structural factors when influencing organisations to change. The authors also suggest partner agencies can be used as a focal point for learning and dissemination of good practice.

Position in the market

Market share that a company holds has been raised as a key contextual factor (AECOM, 2009) and also affects its ability to influence market conditions and (for example) future regulations (Bonsall, 2009). The profitability of the organisation has obvious implications for its ability to invest in new initiatives (ibid).

Bonsall (2009) remarks that commercial drivers can be exploited by regulators. An opportunity to influence the market or operating environment (eg being first to market with a new concept or product), influencing the shape of future regulations or industry standards has been noted as another important commercial driver. Baselineing and benchmarking schemes (these can be anonymous against industry averages) can provide a means of tapping into similar drivers (AECOM, 2009).

Regulatory environment

The regulatory environment is an important aspect of the constraints businesses face that impact on their activities and factor into organisational decision-making. Within economics, regulation (much like taxation) is viewed as a ‘structural factor’ that hinders the profit function, and represents a necessary but burdensome aspect of doing business. Several government initiatives have addressed the need to modernise regulation; the Hampton Review considered reducing administrative burdens of regulatory enforcement and inspection; and more recently, the UK Coalition Government initiated the ‘Red Tape Challenge’ (Angus et al., 2013).

Despite the association between ‘red tape’ and burden on business, the relationship between regulation and profitability is not straightforward: a review of evidence conducted for BIS (2012) suggests that regulation can positively or negatively impact

⁸ Cited in Marsden and Bonsall (2009)

⁹ Cited in Marsden and Bonsall (2009)

on productivity, growth and competitiveness: positively by, for example, supporting competitive markets and protecting intellectual property, or negatively by diverting resources away from more productive uses, raising barriers to entry into industries and producing disincentives to investment and innovation.

Drivers of regulatory compliance

Various drivers have been considered in studies examining the effectiveness of various regulatory practices (viewing compliance as an outcome rather than – as in the context of the previous section – a constraint). Discussion has centred on the relative contribution of ‘carrots’ and ‘sticks’ in encouraging compliant behaviour. In a recent review of regulatory effectiveness, Taylor et al. (2012) remark that much of regulatory design for businesses begins from the primary assumption that business behaviour is driven by the desire to maximise profits and strategic competitive advantage. However, Porter and Kramer (2006)¹⁰ have argued that businesses have become increasingly motivated by their positions on corporate social responsibility (CSR) rankings, which seek to reflect the businesses’ ethical behaviour and attract considerable publicity. In the view of proponents of this argument, good CSR performance should be expected on the grounds of a company’s moral obligation to ‘do the right thing’, to operate sustainably to protect the wellbeing of future generations, to maintain its licence to operate from government and society and to protect and enhance its reputation (Taylor et al., *ibid*). In considering this, it is important to note the positive public relations that can result from ethical behaviour so ‘pure’ motives, while possible, are unlikely.

A business perceptions survey conducted by the NAO for BIS (2014) is demonstrative of this apparent trend. Businesses were asked to consider eight factors that play a role in encouraging them to comply with regulation. In order of importance to their business (ie ‘essential’ or ‘very important’), these were listed as:

- maintaining their reputation with customers
- meeting their insurance requirements
- that it is important to do the right thing/comply
- a desire to protect staff, customers and the environment
- avoiding sanctions due to non-compliance
- saving the business money
- giving the business a competitive advantage
- meeting supply chain requirements.

The importance attributed to reputational concerns highlights the key role of public image in driving the behaviours of many businesses (although as stated above, this appears to be a lesser concern for SMEs). For this reason, voluntary schemes that are highly visible to businesses and the public appear to have high participation rates and coverage, helping to ensure compliance (Bryden et al., 2013).

¹⁰ Cited in Taylor et al (2012)

Regulatory approach

The means by which regulation is administered and enforced is a determinant of organisational behaviour and has yielded a large body of research. According to Decker and Hodges (2014), firms in the retail sector may perceive voluntary regulation as being more flexible than mandatory regulation, and providing them with greater autonomy. The argument here is that by participating in the design of the regulatory measure, firms can maintain a degree of control and influence over the process (ie they have greater ownership of any resultant regulation that they are involved in creating). Other reasons cited by the authors for preferring voluntary over mandatory regulation include voluntary measures (i) being more tailored to the circumstances and characteristics of different firms (ie not a one-size-fits-all approach); (ii) being quicker to develop and implement, and (iii) providing ability to adapt to changes in market contexts quickly and at less cost (although the authors note these conditions do not always apply).

Being seen to take 'voluntary' action in specific areas of social concern can also be market expanding, as it helps to secure a good reputation for the firm and higher levels of economic activity. These considerations around reputational effects will all feed into a firm's assessment of whether or not it is profitable to sign up to the voluntary regulation in the short and long term. In some cases, organisations will sign up to government-sponsored voluntary agreements because they accept that there is genuinely a 'gap' in terms of conduct or policy, and that the proposed voluntary measure would address such a problem. Firms may voluntarily sign-up to government regulation to avoid mandatory regulation being introduced, perceiving it as the lesser of two evils. This is particularly true where there is the potential threat that mandatory regulations will impose greater financial costs on the industry (Decker and Hodges, *ibid*).

Decision-making process in compliance

In the context of the current review, regulation is not just a business constraint; it is an area organisations *make decisions about*. Therefore the drivers of compliance (as opposed to regulation itself as a driver) are arguably of more relevance to the current review; this is of key interest to agencies with a predominantly regulatory remit.

Coherence between corporate cultures and external pressures can make regulatory processes less costly. When it comes to decision-making on the environment, Gouldson (2008) argues that change is most likely where the various external pressures resonate with each other, and where they impact upon firms with receptive corporate cultures. Where these preconditions are absent, Gouldson (*ibid*) argues change can be more expensive. Taylor et al. (2012) conclude that the question of 'what works' with respect to regulatory effectiveness is not an easy one to answer and they highlight the complex chain of interactions from regulatory intervention through to its impact. The range of business motivations and capabilities of different sectors (and of individual businesses within sectors) is highlighted as a challenge to formulating policy to support regulatory reform. They note a significant gap in research to understand 'the subtleties and nuances of how different actions undertaken by regulators (state or otherwise) influence business behaviour in practice' and suggest that ethnographic approaches could address this. Examination of the evidence base explored in the current review appears to be broadly consistent with this observation, although a more focussed review would be required to confirm

the presence or absence of studies that fill this gap and identify implications of any evidence shortfall for policymakers.

Corporate image and CSR

Organisational reputation and positive corporate image have been flagged as key motivators in thinkpieces looking at organisational decision-making including those with respect to particular policy areas (eg AECOM, 2009¹¹, Anable et al., 2014) as well as pieces of work looking at business practices more broadly. Organisations can be keen to seize opportunities for improved company image, such as being at the forefront of 'green' campaigns, community involvement, and sponsoring popular initiatives (Bonsall, 2009b). As described earlier, public image can be very important in encouraging compliance (Bryden et al., 2013).

Decker and Hodges' (2014) remark that the increased profile of CSR is evidenced by the fact that many companies, particularly PLCs, have corporate responsibility divisions. The importance of this will be somewhat dependent on visibility to the public, for example retailers are more visible to consumers than manufacturers (Bonsall, 2009). In a discussion of government-sponsored voluntary regulation in the retail sector, Decker and Hodges (ibid) suggest that larger companies may have 'a natural incentive to act in ways that are consistent with a social consensus to avoid a reputational backlash', while smaller firms operating in the sector may be less concerned about reputational effects associated with being 'socially responsible'.

With respect to public sector organisations Burstein (2003)¹² reviewed thirty studies across a range of policy fields to examine the extent to which policy making was influenced by public opinion and by other factors (such as the existence of external lobby groups). He concluded that public opinion matters for most policies and, when it matters, it is significant. The influence of public opinion increases with the saliency of the issue in question; low public acceptability can quickly undermine commitment to participate. (The behavioural drivers of ethical aspects of organisational cultures are explored in depth in the 'cultural drivers' section of the next chapter.)

Sensitivity to stakeholders and shareholders

Organisations will factor the reactions of stakeholders into many aspects of their decision-making (AECOM, 2009), the main ones that influence business behaviour being regulators, advisors (government advice bodies, trade associations etc.) interested parties (customers, investors, suppliers), and citizens and their representatives (local communities, NGOS and the media). Depending on the environment the organisation operates within, other stakeholders can include: governance and research groups, business-oriented bodies, professional practice-oriented bodies, implementation agencies, campaign groups, and unions (Pangbourne et al., 2014). Inevitably, elected bodies will be constrained by assumptions about the attitudes of voters (Feld and Matsusaka, 2003)¹³ and low public acceptability is said to undermine commitment to participate (Marsden and Bonsall, 2009).

¹¹ Influencing Business to Change 'Thinkpiece' for the Department for Transport (UK)

¹² Cited in Marsden and Bonsall (2009)

¹³ Cited in Marsden and Bonsall (2009)

Using survey methodology, Stevens et al. (2005) found that market stakeholder pressure (ie those stakeholders that interact with the firm through some form of economic transaction) had a positive influence on senior financial executives' use of ethics codes. Interestingly, the influence of non-market stakeholders on this behaviour was not significant (these include regulatory agencies, the court system, government bodies and special interest groups).

According to Hebb (2006), when organisations are opaque and interests are secret, decision-making can and does distort efficiency. In light of recent corporate governance failures, she notes a shift in corporate governance from concerns over issues of accountability (previously reflected in the drive to increase board oversight of management through the enhanced role of independent directors), towards mechanisms that force increased transparency and disclosure of the interests being served in firm-level decision-making. Tapscott and Ticoll (2003)¹⁴ argue that with the emergence of the Internet, corporations are going to be increasingly 'naked' and will operate in something of a transparent fishbowl. Similarly, Seidman (2004) notes that the 'profound impact of technology has enabled greater transparency in evaluating business, institutions, and organisations. The corporate veil has been pierced.'¹⁵

Corporate social responsibility, public image and reputational concerns arguably arise from both market forces and internal corporate culture. The latter is addressed in Chapter 4.

Organisational factors

Summary

- Many economically important decisions with far-reaching consequences are taken by teams rather than by individuals.
- The shape of an organisation is important in understanding the way decisions are made and therefore how to work with them (eg layers of hierarchy; horizontal, vertical or flat structure).
- Typically the incentives driving individuals working in particular roles within the same organisation will be in conflict. Different agents may be pursuing their own personal interests rather than the organisation's interests. The resulting conflicts of interests often come at the expense of organisational efficiency. Because they are more creative, decentralised organisations are more likely to take risks. In contrast, a key advantage of centralised, hierarchical decision-making is that it filters out erroneous ideas, even at the risk of rejecting too many.
- The extent to which an organisation is coordinated is likely to impact on whether change implemented in one part of an organisation affects the organisation as a whole more widely.
- With respect to SMEs, there is a tendency for businesses to operate to a rhythm or timetable and/or business plan, with production or delivery deadlines that cannot be disrupted. A firm in which the CEO makes the most relevant decisions, the risk arising from judgement errors is higher, and better decision-making takes place when many executives are involved in the decision-making process.
- SMEs tend to rely more on the abilities of their managers since they usually lack the resources and administrative systems that help larger companies in their decision-making processes.
- Boards may have a more important role in small businesses than in corporations but this has not been fully explored due to the fact that most board research uses samples from large corporations.

¹⁴ Cited in Pendse (2012)

¹⁵ Cited in Pendse (2012)

- Points of contact other than senior managers could potentially be at the receiving end of policy initiatives intended to influence organisational behaviour. For example, middle and junior managers can be key to enabling change and can become barriers to success if excluded.

Organisations are composed of many individuals working together and this places constraints on behaviour. (This description is in contrast to the stylised view which sees them as a single rational unit.) When considering the organisation as a 'black box' which needs to be unpacked, a range of issues emerge. The presence of conflicts of interests, misalignment of incentives¹⁶, limited contractibility¹⁷ and private information are all said to generate frictions which lead (profit-driven) organisations away from the idealised profit optimising paradigm, and towards a more constrained 'second best' (note that the latter arise from structural, *not* behavioural, traits).

Organisational structure

Throughout history individuals have come together to form organisations, and their structures to facilitate and enable decision-making, such as hierarchies, are thought to offer an evolutionary advantage (see section on 'cultural drivers' for further exploration of this topic). Within the organisational psychology and management sciences there is an extensive literature exploring the implications of different organisational configurations and how the roles and responsibilities ascribed to individuals within the company structure will serve to drive behaviours.

Engel (2010) observes that corporate actors differ from mere collective actors in that they have structure and that in the simplest case, this structure is exclusively horizontal, with more complex corporate actors usually also having elements of vertical structure. Corporate actors with a purely horizontal structure are relatively rare, with small partnerships the best illustration of this (Engel, *ibid*). Usually, some of the structure is vertical, and there is some form of hierarchy. He highlights the fact that employees depend on employers, and managers depend on boards and shareholders. He also explains that due to a contract, agents have to act on behalf of principals. (This raises the possibility that decisions made by contractors may represent a special case, one not explicitly addressed in the literature.)

The effects of different organisational structures on decision-making depend on the stability of the organisation's external environment and also on the potential damage imposed by different types of mistakes (Sah and Stiglitz, 1986; cited in Posner, 2005). Specifically, with a decentralised structure, managers have more autonomy and more control over resources, enabling them to initiate and test a greater number of creative new ideas (Russell and Russell, 1982). A decentralised organisation is therefore well suited to unstable environments, where it is important to adapt to changing conditions.

Because they are more creative, decentralised organisations are more likely to take risks (Sah and Stiglitz, *ibid*). In contrast, a key advantage of centralised, hierarchical decision-making is that it filters out erroneous ideas, even at the risk of rejecting too many. In some industries, such as counterterrorism intelligence, the consequences of not reacting to a false negative (not pursuing a lead that turns out to be important) is

¹⁶ See Glossary

¹⁷ <http://www.palgraveconnect.com/esm/doi/10.1057/9781137294678.0287>

potentially very serious, while the cost of responding to a false positive (pursuing a lead that turns out to be a false alarm) is relatively small (ibid). These industries are more suited to decentralised decision-making, although - as argued above - there is a need to ensure that different units communicate effectively. In some industries, such as academic publishing, the degree of damage for the organisation's reputation and credibility resulting from a false positive (publishing an article that contains a mistake) far outweighs that from a false negative (rejecting a perfectly worded article); hierarchical decision-making is more likely to dominate in the latter case (ibid). Corporate actors also have explicit rules for aggregating their members' views and wishes into collective choice. Different rules produce different group choices (for a review see Kerr et al., 1996¹⁸).

Coordination and communication

The distribution of information across an organisation is likely to be diffuse in nature, due to different individuals having access to different information sources. This is problematic because the process of communicating this information across the organisation is potentially time-consuming, costly and imperfect. In this respect, an organisation with two individuals, each of whom possesses one different piece of information is not the same as a single individual with access to both pieces of information.

Other communication issues can arise as a result of misunderstanding between individuals from different professional or technical backgrounds; the failure to develop a common language has been blamed for merger failures or misunderstandings between interdisciplinary groups (eg Cremer et al., 2007).

The importance of communication is often linked with that of coordination; ie consistency of approach across the organisation. There is a trade-off in multi-divisional organisations between coordination and adaptation: the more closely activities are synchronised across divisions, the less they can be adapted to the local conditions (eg the costs of running a particular site, local market conditions). A centralised organisational structure is often advocated as a means to alleviate mis-coordination issues, but this can come at the cost of stifling local adaptation (Alonso et al., 2008). An alternative approach to improving coordination is to ensure that local managers communicate their local conditions with the decision-makers effectively. However, as discussed below, the incentives of local managers are typically not aligned with those of the centre, and this may generate issues of misreporting. The most effective organisational structure will depend on the interplay between all these elements.

One might expect that coordination and communication issues will impact more on multi-site organisations although the sources reviewed are not specific about the relationship between these and company size. With respect to influencing organisations, this topic is an important consideration: the extent to which an organisation is coordinated is likely to affect whether change implemented in one part of an organisation impacts the organisation as a whole.

At a practical level, business plans and timetables serve as tools for business coordination and communication. With respect to SMEs, North and Nurse (2014)

¹⁸ Cited in Engel (2010)

highlight a tendency for businesses to operate to a rhythm or timetable and/or business plan, with production or delivery deadlines that cannot be disrupted. The authors do not specify the extent to which this observation applies to larger businesses also, but this may have implications for the receptivity of businesses of all types to government interventions and the degree of influence that is achievable at different times in the business cycle. HMRC research on SMEs and choice confirms the most appropriate stage for SMEs to receive information relating to tax choices is at the startup stage, ie when people first register as self-employed or when they set up a limited company. This is explained as being the point at which they have the least tax knowledge and therefore the greatest need for information and education on taxes (HMRC, 2015).

The above arguments demonstrate some important constraints on decision-making in organisations; ie the potential for systems and structures to slow down, moderate or create barriers to decision-making or block implementation of decisions. The scope for autonomous decision-making (ie the approach that one would expect in the individual case) is therefore limited.

Conflicts of interest and misaligned incentives

Modern economics has moved away from the classical model of 'the firm' as an entity to consider the economic behaviours that can arise as a result of self-interest on the part of agents within the firm (Fama, 1980). This is important because typically the incentives driving individuals working in particular roles within the same organisation will be in conflict (ie they are 'misaligned'). Different agents may be pursuing their own personal interests (in terms of future career prospects, monetary gain, effort exerted) rather than the organisation's interests (also see 'cultural drivers' section which summarises the literature on characteristics and behaviours of leaders that drive decision-making). The resulting conflicts of interests often come at the expense of organisational efficiency. There is a vast literature within the domain of economics that studies incentive problems (see, for example, Laffont and Martimort (2002) for an overview).

The so-called moral hazard problem is illustrative of problems of this type that can arise within organisations. In this scenario, the principal (the employer) must motivate an agent (the employee) to exert effort under conditions of imperfect observability¹⁹. Crucially, the agent typically has different objectives from the principal: the principal may be interested in maximising the firm's profits, but the agent is concerned about maximising his or her own compensation minus the cost of effort. The principal's task then takes the form of designing an appropriate compensation scheme for the agent. Bonuses that reward performance can serve this purpose, but these must be balanced against the necessity to cushion the agent against risk arising from random fluctuations.

Multi-tasking is another possible issue. As observed by Kerr et al. (1975) in a classic article, rewarding one (perhaps more easily measurable) aspect of performance may come at the detriment of other elements, less easily measurable but equally or even more important, and this can have undesirable effects. A teacher who is rewarded for the exam results of his or her pupils may end up teaching to the test rather than truly

¹⁹ This reflects the reality within organisations that full observation of actions is either impossible or prohibitively costly.

transferring knowledge; a doctor whose compensation is tied to how many patients she sees per day may end up spending too little time diagnosing her patients' illnesses. These examples illustrate how sometimes it may not be a good idea to tie rewards with measurable performance, especially when production is a multi-faceted, multi-dimensional activity (eg teaching), rather than a single-dimensional endeavour (eg bricklaying).

Another possible distortion in organisations that originates from misaligned incentives is the failure to adapt to new environments that would render existing power centres obsolete. Agents with vested interests in the status quo may have an incentive to block change, even when this would benefit the organisation as a whole. As a result, established firms often fail to adjust to radical market and technology changes and new firms seize the emerging opportunity. Evidence from case studies shows a pattern of failure to adapt following radical innovation in the disc drive, steel, and earth excavator industries, the laser industry, the photolithographic and pharmaceutical industries, and the post-deregulation US airline and trucking industries (see, for example, Dow and Perotti, 2009).

The scope of this review does not allow full exploration of the means by which the above phenomena drive organisational decision-making or make an impact in a practical sense. However, an awareness of these issues is relevant when considering the economic motivations of the various actors within the organisations that have decision-making (ie management) responsibility, which are far from straightforward. Incentives that (logically) stem from an individual's position in the organisation can drive behaviour that may not be consistent with what is best for the organisation as a whole (ie in terms of profit delivered to its owners). The distinction between management and ownership is particularly important in larger companies where 'control of the firm is in the hands of managers who are more or less separate from the firm's security holders' (Fama, *ibid*).

Internal organisational responsibilities

The evidence reported in this section brings together observations in the reviewed literature that apply to specific types of organisational stakeholder.

Chief executive level

The government 'thinkpieces' considered in this review are typically based on the assumption that the main points of government contact with organisations are chief executives and members of their board. These include observations that chief executive officers (CEOs) will require 'a concise, coherent business case, combining fiscal with other benefits to action a decision' (AECOM, 2009) and that 'adherence to instructions from parent company, major shareholders etc. is an important driver of their behaviour' (Bonsall, 2009). Consistent with the discussion above about conflicts of interest, it is noted that such instructions may not necessarily be in the best interests of the organisation (*ibid*).

Adams et al. (2005) argue that in a firm in which the CEO makes the most relevant decisions, the risk arising from judgement errors is higher and that better decision-making takes place when many executives are involved in the decision-making process. The authors analysed data on publicly traded firms in the US 'Fortune 100', which showed that variability in firm performance increases with the degree of CEO influence because decisions with extreme consequences are more likely to be taken

when the CEO is more powerful; stock returns were more variable in firms in which the CEO has greater power to influence decisions. The evidence was particularly compelling when the status of the current CEO as a founder of the firm was used as a measure of power. The authors note that their findings are consistent with research on group decision-making, which indicates the superior performance of groups (eg Sah and Stiglitz, 1986)²⁰; this topic is central to much of the discussion in the next chapter.

Within the evidence base, reviewed observations specific to companies of different sizes are rare, but it has been suggested that SMEs usually lack the resources and administrative systems that help larger companies in their decision-making processes and that consequently, SMEs have to rely more on the abilities of their managers. Whether this serves to their disadvantage or advantage therefore rests on the competency of those leading (Lubatkin, Ling and Veiga, 2006)²¹.

Board level

Sutter, Czermak and Feri (2013) highlight that insights into the strategic sophistication of teams is warranted because many economically important decisions with far-reaching consequences are taken by teams rather than by individuals, such as company boards, management teams, committees or central bank boards. Hebb (2006) observes that, nominally, boards represent shareholders, but they do so only indirectly by ensuring that management decisions add long-term value to the firm. She also notes that the rights of shareholders, particularly minority shareholders, remain limited within the corporate structure, specifically when measured against the range of power available to management.

According to a DfT thinkpiece (AECOM, 2009)²², board members respond best (when approached by external parties) to the language of risk, and are influenced by approaches which are aimed at risk reduction with respect to, for example:

- committing an offence
- impending legislation affecting profit
- the company's reputation
- missed commercial opportunities.

In the business governance literature, it has been noted that research efforts into the board's role in strategy have been limited and 'that there is little academic consensus on the behavioural dynamics of boards' (Hendry and Kiel, 2004). Drawing from a range of literature, two contrasting views of the board are provided, with the suggestion that each lies on a continuum between these two extremes:

- *The Passive* school of thought sees boards as just rubber-stamping strategic developments, arguing that they are under management control, particularly powerful chief executives.

²⁰ Cited in Adams, Almedia, and Ferreira (2005)

²¹ Cited in Escriba-Esteve, Sanchez-Peinado and Sanchez-Peinado (2009)

²² Note that the cited document represents 'considered opinions' of relevant experts in sustainability related business engagement initiatives, and is not a high-quality source as defined for academic sources.

- The *Active* school of thought sees boards as independent thinkers who shape the strategic direction of organisations.

A key point of debate is whether boards, particularly those comprising predominantly nonexecutive directors, have sufficient insight into the fundamentals of the business to provide a significant strategic contribution (Helmer, 1996)²³. Pendse (2012)²⁴ Qyery: 2011 in Biblio. makes the argument that even if a conscientious director wishes to exert vigilant oversight over the company, he or she is usually powerless to do so, since they lack access to detailed financial figures and the ability and time to analyse and interpret such figures.

In essence it would appear that few general conclusions about the role of the board in organisational decision-making can be drawn and that particular characteristics of the business in question may dictate this. For example, agency theory and resource arguments from the strategy literature indicate that boards may have a more important role in small businesses than in corporations (Johannisson and Huse, 2000)²⁵. However, it has been noted that this is an area that is largely unresearched. Most board research uses samples from large corporations, highlighting a need to explore the role of managers in SMEs (Huse, 2000)²⁶.

Middle management, functional divisions and supply chains

There are clearly other points of contact with organisations that could potentially be at the receiving end of policy initiatives intended to influence organisational behaviour. A DfT thinkpiece explicitly recognises this fact and also acknowledges that different approaches may be effective with each. For example, middle and junior managers are said to respond best to ‘capacity building initiatives that help them to manage better, combined with the inclusion of appropriate, change-related performance indicators in their personal performance plans’ (AECOM, 2009). They can be key to enabling change and can become barriers to success if excluded. The same document also emphasises that within different functions of the same organisation (eg HR, Finance, Operations, Engineering, Estates, Marketing, Sales) different drivers may apply²⁷ (AECOM, *ibid*).

²³ Cited in Hendry and Kiel (2004)

²⁴ Ms. Sherron Watkins, whistleblower/ Vice President of Corporate Development at the Enron Corporationat

²⁵ Cited in Escriba-Esteve, Sanchez-Peinado and Sanchez-Peinado (2009). Johannisson and Huse suggest that in small family businesses ‘professionalisation of the board enforces managerialism, challenging thus far dominating ideologies, entrepreneurialism and paternalism’.

²⁶ Cited in Escriba-Esteve, Sanchez-Peinado and Sanchez-Peinado (2009)

²⁷ A related point is the manner in which financial resources are ascribed to different functions, as Thaler and Sunstein note like households, most organisations have budgets for various activities. ie they ‘violate fungibility’ to control spending, and important purchases may be prevented because the relevant account is already depleted.

4) Behavioural drivers

This chapter describes the behavioural drivers that underlie decision-making processes within organisations (ie those not due to structural causes external to organisation members). It is divided into three sections, representing the multiplicity of approaches to understanding the strategic styles, and social and cultural factors that can drive decision-makers to make less than perfect decisions. Findings from behavioural economics, social psychology, organisational psychology and management science have been integrated as far as possible to provide a cohesive account of these factors.

Cognitive drivers

Summary

- An influential view is that organisations are often better at slower, more rational thinking than individuals because of the procedures that are put in place before decisions are taken, but there is acknowledgment that organisations are not immune from 'cognitive minefields'.
- Irrespective of their level of intelligence, decision-makers in organisations have to work within three unavoidable constraints: information limitations, limited mental capacity and time.
- In the context of organisations the terms 'bounded rationality' and 'satisficing' are frequently used to explain or describe imperfect decision-making.
- This means they may be content to achieve 'satisfactory' rather than optimal profits, and might rely on simple rules of thumb (such as imitating the strategies of well-performing rivals) rather than on explicit calculation of complex optimal strategies.
- Some studies show reliance on 'MINDSPACE-like' drivers in some circumstances with respect to organisational behaviour; the influence of 'messenger (advisor)', 'incentive', 'saliency', 'priming',

and 'affect' can result in departures from 'rational' behaviour, as can mis-estimation of risk. (Other sections of this report refer to other elements such as 'ego' (self-interest), and 'social norms'.)

- In some circumstances autonomous decision-makers in organisations do not systematically deviate from the behaviour of independent individuals. For example, managers underestimate the strength of their competitors and can be prone to overoptimism in general.
- There appears to be consensus that entrepreneurs in particular are prone to being influenced by availability, representativeness and anchoring when evaluating business opportunities, and they often rely on hunch and intuition.
- The link between business size and risk taking is complex: among individual decision-makers, studies show that those prone to taking risk and being proactive are more likely to be entrepreneurial.
- However, there is also a view that SMEs are more risk averse than larger businesses. In practice SMEs are likely to differ significantly as a group with respect to risk and their ability to process and analyse information objectively.
- Emotion has not featured prominently in classic theories of organisational decision-making but studies highlight the importance of emotional intelligence.
- Experimentally it has been shown that cognitive biases known from individuals also work on groups but that 'situational and procedural contexts' dictate when this occurs.
- However, recent, high-quality sources of evidence on non-interactive decision-making indicate that groups are more cognitively sophisticated than individuals and that, on the whole, group decision-making tends to alleviate the biases exhibited by individuals.

Recent, popularised accounts of human decision-making have focussed on the factors that 'nudge' or influence individuals to deviate from rational choices. The application of these principles to organisations remains relatively unexplored. With that evidence gap in mind, a key issue for the current review was the extent to which mental shortcuts, 'heuristics', and biases that individuals are susceptible to are relevant to organisational behaviour.

The organisation as an actor

In the influential book 'Thinking, Fast and Slow', Kahneman (2011) acknowledges that organisations are often better at slower, more rational thinking than individuals because of the procedures that are put in place before decisions are taken. Groups also have access to a larger pool of knowledge than individuals (see section on 'social drivers' for further discussion on knowledge sharing). However, Kahneman notes that 'there is always room for improvement' and observes that organisations are not immune from the 'cognitive minefields' that characterise individual decision-making processes.

Individuals have been found to make many kinds of departures from the 'full rationality' paradigm. The limitations in decision-making which are due to the inability to calculate the right solution are typically referred to as cognitive biases. To test these biases, single individuals are typically confronted with decisions which have objectively correct answers and which test the kind of reasoning frequently ascribed to agents in economic theory.

In these circumstances, individuals have been shown to misunderstand statistical independence; they fail to recognise statistical dominance; they make errors in updating probabilities on the basis of new information; they make false inferences about causality; they ignore relevant information (or use irrelevant information); they

display overconfidence; they make frequent errors in deductive reasoning tasks; they fail to discount the future consistently; they follow norms even when this is costly and there is no material incentive to do so; and they are willing to pay in order to punish norm-violators (for a review, see Kahneman and Tversky, 2000). These anomalies and the use of possible ‘nudges’ to correct them have recently been the object of much popular attention and discourse, notably via the mass-market paperback ‘Nudge’ (Thaler and Sunstein, 2008)³⁹.

The question of whether similar factors come to play in organisational decision-making has not been definitively answered in the academic literature. Engel (2010) observes that ‘In the first approximation, individual and corporate actors differ in the way they take decisions, but they do not differ in their being actors’ and that, in principle, the rich empirical knowledge on the behaviour of individuals can be used to explain or predict the behaviour of the corporate actor (Payne, 1997; Shapira, 1997; Gibbons, 2003)⁴⁰.

Bounded rationality and ‘satisficing’

Irrespective of their level of competence, decision-makers have to work under three unavoidable constraints: (i) only limited, often unreliable, information is available regarding possible alternatives and their consequences, (ii) the human mind has only limited capacity to evaluate and process the information that is available, and (iii) only a limited amount of time is available to make a decision. As a result of bounded rationality,⁴¹ perfectly rational decisions are often not feasible in practice because of the finite computational resources available for making them.

Under these conditions, even individuals striving to make rational choices are bound to make less than perfect choices in complex situations. These make it nearly impossible to (for example) draw up contracts that cover every contingency, necessitating reliance on ‘rules of thumb’ (Simon, 1982)⁴². Also, despite the impossibility of constructing any meaningful probability distribution in a state of true uncertainty, decisions must still be made and courses of action pursued (Schwartz, and Spong, 2009). Therefore managers ‘satisfice’ in their decision-making, ie look for a course of action that is satisfactory or good enough (Sakhartov and Folta, 2012). Satisficing is a decision-making strategy or cognitive heuristic that entails searching through the available alternatives until an acceptability threshold is met. This is contrasted with optimal decision-making, an approach that specifically attempts to find the best alternative available (rather than maximising or optimising).

In an influential review, Armstrong and Huck (2010)⁴³ draw the conclusion that firms (or experimental subjects playing the role of firms) may be content to achieve satisfactory rather than optimal profits, and might rely on simple rules of thumb (such as imitating the strategies of well-performing rivals) rather than on explicit calculation of complex optimal strategies.

³⁹ See Chapter 1 ‘Bias and Blunders’ for user-friendly explanations of key phenomena

⁴⁰ Cited in Engel (2010)

⁴¹ See Glossary

⁴² Proposed by the US Nobel-laureate economist Herbert Simon (1916-2001) in his 1982 book ‘Models of Bounded Rationality and Other Topics in Economics’

⁴³ http://mpira.ub.uni-muenchen.de/20356/1/MPRA_paper_20356.pdf

Use of heuristic biases

Heuristics are used as simplifying mechanisms in complex situations and form the basis of modern behavioural models of individual decision-making, such as MINDSPACE⁴⁴. Almost a century ago Knight (1921)⁴⁵ argued that business actors such as entrepreneurs make decisions based on estimates regularly and must employ the resources of 'intuition and hunch' to cope with this. A range of evidence sources indicate that heuristics are used in business decisions. For example, an interview study with 15 senior executives from FTSE 350 companies showed that the way they frame choices, perceive value, assess probability, evaluate temporal effects and respond to uncertainty means that long-term incentive plans (LTIPs) are generally not efficient and are often not effective in meeting their objectives (Pepper et al., 2013).

Manimala (1992)⁴⁶ observes that many entrepreneurial actions would be 'paralysed' without mental shortcuts. Regarding this group, a repertoire of actions or rules they are said to use to evaluate 'gainful opportunities' include availability, representativeness and anchoring. Shaver and Scott (1991)⁴⁷ provide an illustration of each:

- A person who just read about another restaurant's closing in the morning will give a higher estimate of failures than will a person who has not seen such a story in a long time (the availability heuristic).
- A person for whom Restaurant X is typical of successful establishments will make a lower guess about failure than will a person for whom Restaurant X resembles failures (the representativeness heuristic).

Finally, a perceiver who knows that three local restaurants have failed will make a smaller estimate than a perceiver who has been told that 10,000 restaurants have failed nationally (the anchoring heuristic⁴⁸). Another study has found that fund managers in Japanese institutional investors exhibit short-termism, herding, and self-marketing to improve the appearance of portfolio performance (Suto and Toshino, 2004)⁴⁹. Suto and Toshino conclude that the corporate setting does thus not induce systematic differences in behaviour.

A range of studies show reliance on specific types of heuristics in some circumstances with respect to organisational behaviour; examples are listed below.

Saliency

As with individual decision-making (and featuring within the MINDSPACE framework), saliency is identified as a key variable for organisations: ie how important the topic is at a particular time. Anable et al. (2014) cite increasing awareness of the impact that the carbon footprint has on business performance factors as an example of this. Marsden et al. (2009) cite 'political saliency' with respect to influencing local partners in the public sector and the importance of capitalising upon this is

⁴⁴ <http://www.instituteforgovernment.org.uk/sites/default/files/publications/MINDSPACE.pdf>

⁴⁵ Cited in Schwartz 2009

⁴⁶ Cited in Endres and Woods (2006)

⁴⁷ Cited in Endres and Woods (2006)

⁴⁸ See Glossary

⁴⁹ Cited in Engel (2010)

emphasised; local delivery partners will engage most in generating or taking up ideas in areas which have a strong policy fit with their historic and/or current local priorities.

Premeaux (2009) found evidence of a heightened state of ethical awareness after the Enron convictions, indicating the inevitable impact of significant external events on a firm's decision-making. The majority of respondents to a survey of 1,000 marketing managers in the US indicated that they were more likely to select ethically based rationales of rules and rights to guide their decision-making process (in response to vignettes). It is suggested that after the Enron convictions, managers may have a more thorough appreciation of the negative ramifications of behaving inappropriately and it is noted that the underlying personal motive for this shift may be a self-serving one of self-protection. The author notes that regardless of the underlying personal motives, the shift toward a more ethical decision-making process is positive.

Opportunity

Endres and Woods (2006) note 'alertness' as particularly pertinent for entrepreneurs and describe 'the construction of profit opportunities confined to a specific field of the entrepreneur's vision in which the entrepreneur is distracted from attending to other fields'. The authors note a need to conceptualise the state of being alert in the real market processes. This is linked to entrepreneurial optimism, which serves 'to convince other potential stakeholders (such as investors, suppliers, customers, key employees) of the 'opportunity that affords them if they get in on the ground floor of the venture'. They argue that if entrepreneurs wait until all the 'facts' are in to start convincing others that their venture is legitimate, the opportunity they are seeking to exploit will most likely be gone by the time more complete data becomes available. Reflecting on the importance of this, Richardson (1960)⁵⁰ observes: 'a general profit opportunity which is both known to everyone and equally capable of being exploited by everyone is... a profit opportunity for no one in particular'.

In a discussion paper, Sarasvathy (2004) examines what cognitive science has to offer in understanding entrepreneurial behaviour. He acknowledges a gap in knowledge about decision-making in this domain and what constitutes best practice. In seizing opportunities to launch a business, 'plunge' (ie risky) decision-making is necessary, which is said to require motivation but also 'stress; emotional endurance; strength; efficacy of spousal, familial, and friendship ties; and sheer physical energy'. The importance of modelling the plunge decision as a physically and socially embodied process rather than a variance in given psychological traits and motivations is stressed as part of a more general argument that the theories of the firm fail to inform understanding of entrepreneurship.

In a review of corporate ethics Pendse (2012) describes the conditions in which corporate corruption can arise, and the role of a motive, means, and opportunity in this⁵¹. He suggests that an 'ethical hazard' can arise when a person has the motive but lacks the means or opportunity. Instead of waiting until the means or opportunity become available, an individual can go about creating it. An example is provided relevant to the financial crisis of 2008 (which, interestingly, focuses on firms wielding

⁵⁰ Cited in Endres and Woods (2006)

⁵¹ Cf Michie et al.'s (2011) 'COM-B system' involving three essential conditions: capability, opportunity and motivation

influence on government rather than vice versa)⁵². This represents a case of a potentially symbiotic relationship between organisations and government, ie it cannot be assumed that the latter is always the party doing the influencing.

Risk (mis)perception

As noted above, bounded rationality will usually prevent full investigation of the actual probabilities of success or failure of a venture. As in individuals, there will be distortions in risk perception within an organisation and, as a consequence, decisions about risk taking. According to Engel (2010), managers are prone to 'self-serving reinterpretations of reality': they underestimate the strength of their competitors and can be prone to overoptimism more generally (for further discussion on leadership, see the section on 'social drivers'). In this view their behaviour does not seem to systematically deviate from the behaviour of independent individuals; in the view of Engel (ibid) 'the managerial setting just gives the respective bias its specific form'.

An observational study conducted by Heavey et al. (2009) showed that the extent to which decision-makers (entrepreneurs) are engaged in corporate entrepreneurship is informed primarily by their decision comprehensiveness (the extent to which they fully understand the issue). Those more prone to taking risks and being proactive are more likely to be entrepreneurial under any condition. The findings were seen to demonstrate the value of providing clear information for decision-makers, but the authors noted that this need is less significant for high-risk takers. Among decision-makers with high levels of risk propensity, uncertainty arising from less understanding of the environment is less likely to prevent entrepreneurial action; for these individuals, decision-making tends to be guided by a 'leap then look' approach.

There is a strong focus on entrepreneurial behaviour with respect to risk within the evidence reviewed (this is covered in more detail in a later section on 'individual style') and less on other behaviours. One hindrance to understanding this issue is an apparent assumption in some literature that entrepreneurial behaviours are typical of all SMEs. The relationship between business size, and recency of startup and approach to risk is likely to be complex and dependent upon specific context. For example, it has been noted in a government thinkpiece that SMEs are more risk averse than larger businesses (AECOM, 2009). North and Nurse (2014) note that smaller business owners can be reluctant to invest in untried, potentially risky, new technologies.

In practice, SMEs are likely to differ significantly as a group. For example, a quantitative study of SMEs in Spain conducted by Escriba-Esteve et al. (2009) showed considerable variance in decision-making style across SMEs. They identified a subset of firms with defensive orientations, which usually have less well-developed strategies and are more influenced by management intuition, hunches and unplanned reactions to unanticipated events. They cite evidence that within SMEs, executives with high levels of education are better able to make high-quality decisions 'because they have cognitive abilities to process and analyse information, and to execute more complex decision-making to manage ill-structured situations'.

⁵² Labaton (2008) describes how the investment bank executives used their control over their firms' lobbying resources as the means to influence government officials to create the opportunity for their companies to greatly increase their profits. The added profits then generated very large bonuses for the executives.

Regarding the public sector, there are said to be important differences among decision-makers with regard to degrees of risk-aversion. Local delivery partners are said to fall into four types which describe their uptake of new policies: (i) innovators, (ii) early adopters, (iii) imitators, and (iv) laggards. Uptake of policy can be viewed as an S-shaped curve (Marsden et al., 2009). This type of segmentation may be helpful in identifying organisations more likely to embrace change; yet the type of ‘nudges’ that could be effective with those more resistant are not identified (this would require detailed analysis of decision-making processes).

Priming

Priming relies on sub-conscious cues that can influence one’s mindset, decisions and behaviour. A BMG study for BIS (2013) trialled behavioural insights approaches for stimulating demand for business mentors among 902 SME owner-managers. The approaches tested were:

- priming prevention / promotion – cueing took the form of asking SME owners questions that focused either on the expected negative (prevention) or positive (promotion) outcomes of running a business
- prevention / promotion messaging – the benefits of mentoring in ways that would be more in line with a promotion or prevention mindset were explicitly described, focussing on either positive (promotion) or negative (prevention) outcomes.

Promotion messaging outperformed prevention messaging in increasing entrepreneurs’ willingness to recommend mentoring to other SME owners. A key finding was that regardless of the type of messaging or priming used, certain groups of businesses tended to be significantly more receptive to mentoring than others (specifically SME owners in the services sector, those with no employees, those aged under 50 and those experiencing an increase in revenue in the past year). A key point to note in the context of the current review was the failure of priming to achieve behavioural change over ‘traditional’ messages: as an isolated example, however, it is not possible to determine the reasons for this (eg the choice of priming method or the lack of susceptibility of the audience to priming more generally).

Messenger⁵³

As an element of the ‘MINDSPACE’ model ‘messenger’ refers to the influence of external agents and the superior influence of trusted parties. In the context of groups and organisations, the literature available to this review tends to use the term ‘advisors’ to describe external decision-influencers. There is also a tendency for relevant experimental studies to consider the use of advice as a ‘social preference’. For this reason, findings that might be considered pertinent to the ‘messenger’ aspect of behaviour models are presented in the section on ‘social drivers’.

⁵³ See Glossary

Incentive

McDevitt et al. (2007) discuss how incentives (eg financial reward) and sanctions – created in the organisation to motivate employee behaviour – can sometimes motivate unethical actions by managers who are under pressure to meet deadlines or financial goals (also see discussion of misaligned incentives in the previous chapter). The authors explore the multiple and interacting ‘content variables’ which contribute to both the intended and unintended consequences of interventions intended to influence behaviour, such as individual variables, situational variables, job context, organisational context and the external environment in order to indicate the ‘complexity of the decision process used by individuals facing ethical dilemmas’; (organisational context is explored further as a ‘social driver’ later in this chapter). Therefore while the incentive element of MINDSPACE is intended to apply to individuals, there is no reason to assume incentives (such as business tax incentives) do not similarly drive organisational decision-making, under the (potentially significant) caveat that organisational context and possible conflicts of interest are taken into account.

Emotion (affect)

Emotion (termed ‘affect’) in the MINDSPACE model is acknowledged as a powerful force in individual decision-making. In a review of relevant findings in the business ethics literature, Thiel et al. (2012) cite evidence showing that negative emotions are typically related to poor decision-making in leaders, and that emotional intelligence, (which emotion regulation is considered a part of) has a role as a predictor of ethical behaviour. Four trainable, compensatory strategies (emotion regulation, self-reflection, forecasting, and information integration) have been proposed that aid leaders in ‘sense-making’ or navigating ethical dilemmas.

Maitlis and Ozcelik (2004) note that emotion has not featured prominently in classic theories of organisational decision-making. Using an ethnographic approach, they draw on a longitudinal, qualitative analysis of six ‘toxic’ decision processes to develop a model that describes three phases (inertia, detonation and containment) through which these processes unfold. Each phase is said to be characterised by distinctive sets of interactions among decision-makers and other organisational members, and by emotions such as anxiety, fear, shame, anger and embarrassment that shape, and are shaped by, these interactions. They conclude from the cases they examine that emotion interacts critically with rationality, rules and politics in organisational decision-making, noting a general lack of attention to emotional drivers in research typical in this area.

McDevitt et al. (ibid) argue that the influence of unpleasant emotions on intellectual decisions must be understood when human beings are dealing with highly ego-involving issues like ethical conflicts: this and other factors such as uncertainty, irreversibility and guilt can result in different levels of stress. An extremely high or low stress level (as a result of, for example, serious illness and high medical costs) will interfere with the decision process. The authors note that provision of support, such as a good employee health benefit programme, can provide support to employees facing difficult personal situations that may conflict with their organisational responsibilities. It should be noted that the authors do not test these assertions empirically; nevertheless, the possibility that work stress can adversely affect the quality of the decision-making process would seem an important point to take into

account in thinking about biases specific to decisions made in a work (as opposed to personal) context.

Day and Carroll (2004) examined the effect of emotional intelligence (EI) on performance in a cognitive decision-making task in both an individual and a group decision-making context. The task involved making decisions regarding the order in which employees should be laid off in a fictitious organisation in the midst of downsizing (representative of a typical managerial task). An ability-based measure of emotional intelligence with four sub-scales was used to assess EI and its relationship with performance. The study found that only the emotional perception scale predicted individual performance on the task (ie coming to the 'right' decision). Group performance was not related to any of the four EI scales, raising the possibility that emotional intelligence of decision-makers is a less important consideration in the context of group, relative to individual, decision-making.

The organisation as a group

As described in the previous chapter, the way an organisation is structured can require decisions to be reached with the involvement of more than one person. Indeed one of the defining features of organisations is that they bring together a group of individuals; crucially the team is often seen as the basic unit of performance for most organisations (Katzenbach and Smith, 1993).

Investigating group decision-making is therefore a focus in much of the research seeking to understand behavioural drivers in organisations, with a focus on the extent to which individual biases are reflected in group decisions. Many of the studies conducted to explore this issue are based on the performance of small groups performing tasks in a laboratory context. These studies are an important body of work to include in the current review because of the rigour of their approach.

In a review of the experimental literature, Engel (2010) suggests in principle, cognitive biases known from individuals also work on groups with the caveat that 'it is possible that they are moderated by specific rules for taking group decisions, by group discussion, and by norms prevalent in a group'. In a wide-ranging review of the area, Kerr and Tindale (2004) draw together some key findings on the same theme. These include findings that groups can fall prey to the same heuristic-based biases found at the individual level, eg (Argote et al. 1990, Smith et al. 1998, Tindale et al. 1996, Whyte 1993)⁵⁴. However, the authors note 'a running theme through much of the more recent work is that basic group processes can result in performance that meets or even exceeds reasonable expectations'. They conclude that process gains as well as losses are possible, and both are frequently explained by 'situational and procedural contexts that differentially affect motivation and resource coordination'. Using 'social decision scheme' computer simulations, Kerr et al. (1996)⁵⁵ showed that whether groups will be more, less, or equally as biased as individuals depends on (i) the type of bias, (ii) the type of group decision process, (iii) the strength of the bias, and (iv) the individual preference distribution in the group. This indicates the difficulty of making generalisations from an isolated laboratory finding to a situation where one or more of those factors may differ.

⁵⁴ Cited in Kerr and Tindale (2004)

⁵⁵ Cited in Kerr and Tindale (2004)

The success or otherwise of groups in making ‘correct’ judgements compared with individuals is a focal point of a growing body of empirical work within the domain of behavioural economics (a significant proportion of studies of this type met the criteria for this REA review despite the breadth of the search process). More specifically, the question of whether groups attenuate or exacerbate individual decision biases has been the subject of much attention over the past two decades. So-called ‘non-interactive setups’ have been employed extensively: these are particularly well suited to measuring cognitive biases (both when decision units are single individuals, and when they are teams). These setups simulate environments where an agent’s decision does not affect the well-being of other agents, such that the decision-makers’ success does not depend on the behaviour adopted by others.

Recent, high-quality sources of evidence on non-interactive decision-making are indicative of a consensus that the cognitive biases and limitations experienced by individuals are alleviated in a group scenario. Examples of biases which are reduced when decisions are made collaboratively include myopic loss aversion (Sutter, 2008) decision-making under uncertainty (Rockenbach et al., 2007; Charness et al., 2007) and probability judgement (Charness et al., 2010). Superior performance of groups has also been observed in a (non-strategic) ‘monetary policy and ‘statistical urn’ problems (Blinder and Morgan, 2005). Hence, as argued by Charness and Sutter (2012), the available evidence is compelling in suggesting that, in environments characterised by cognitive limitations (bounded rationality), group choices are closer to the predictions of the standard theory than are individual choices. This is consistent with the intuitive notion that two (or more) heads think better than one: since people come with complementary expertise and abilities, decisions taken by the group are of better quality than individual decisions.

While groups tend to outperform individuals in the settings above, these do not allow exploration of the ways groups and individuals interact at a strategic level (clearly many organisations are – or would claim to be – strategic). To understand this in empirical terms a further level of scrutiny is required which is sensitive to so-called ‘social preferences’.

Social drivers

In behavioural economics terms, an agent with ‘social preferences’ is one who has preferences that are measured over his or her own and others’ material payoffs. Such preferences might arise due to, for example, altruism, reciprocity, fairness and inequality-aversion (List and Levitt, 2007). A psychological perspective on group work is that it involves interpersonal dynamics that individual work does not (McGrath & Kravitz, 1982)⁵⁶. A distinction can be made between taskwork (the skills involved in the execution of a task) and teamwork (the social processes that regulate interaction among group members) (Hamilton et al., 2010). Social interactions therefore play an important role in the functionality of a team independent of the collective skillsbase of the group.

⁵⁶ Cited in Hamilton, Puntoni and Tavassoli (2010)

Decision-making with a social component

Summary

- So-called 'interactive' experiments (invoking game theory) have been employed to study conditions under which an agent is influenced by social and moral considerations.
- 'Eureka-type' experiments have demonstrated the superiority of groups compared with individuals with respect to rationality and correct reasoning: there appears to be a consensus that groups are generally more strategically sophisticated than individuals.
- Hence, based on this evidence, there is a suggestion of a tendency for groups to be less susceptible than individuals to any 'nudging' initiative based on an assumption of irrationality.
- Some researchers have acknowledged the reliance of their own conclusions on laboratory studies (rather than, for example, observations of business practices). This underlines the importance (as is the case with the current review) of considering evidence obtained by other means.

So-called 'interactive setups' have been employed to study conditions under which an agent is influenced by social and moral considerations. ('Interactive decision theory' is considered a more descriptive term for 'game theory'). Interactive setups are reflective of scenarios where the actions of a competitor may be important and where speculation about the behaviour of an external party is a possible influence on decision-making.

A game of chess demonstrates strategic decision-making in an interactive setup, since the most effective strategy for an individual to adopt depends on the strategy adopted by the opponent. A typical example in game theory is the so-called dictator's game, first developed by Kahneman et al. (1986). In this game, one agent (the dictator) is handed a sum of money which he or she then may or may not share with another (passive) agent: it is assumed the dictator's decision is conditioned by social preferences and moral considerations. As has been shown time and time again, many players in this game decide to share, in spite of there being no externally enforced incentives to do so (dictators are free to choose not to share at all, if they wish, and this is made quite clear to them). The interpretation is that, contrary to the standard *homo oeconomicus* paradigm, people may be altruistic (at least to a point), or they may suffer a direct disutility from behaving unfairly/unkindly. A question central to the current review is whether groups/teams can be expected to exhibit the same social preferences (for example, inclinations to share or compete) as individuals.

In considering group decision-making, Sutter (2009) makes a distinction between games with a strong 'Eureka- component' and those without. Having a 'Eureka' component means that if a task has a demonstrably correct solution, this is easily seen by others when it is raised, and 'truth wins' (Davis, 1992)⁵⁷. In these circumstances, once the correct solution is discovered, it can be demonstrated to fellow group members as the right one: they will eventually endorse it, and the group will perform at the level of its best individual member. In these games, rationality and correct reasoning are the predominant characteristic of the task facing the various players and there appears to be a consensus that groups are generally more strategically sophisticated and thus adhere more closely to game theoretic predictions (this is in accordance with the findings reported above on cognitive biases in non-interactive setups). Examples of studies that document the superiority of

⁵⁷ Cited in Maciejovsky, Sutter, Budescu and Bernau (2013)

groups in Eureka-type games include Cooper and Kagel (2005), Maciejovsky et al. (2013), Sutter et al. (2013), Feri et al. (2010) and Cheung and Palan (2011)⁵⁸. Hence, based on this evidence, there is a suggestion of a tendency for groups to be less susceptible than individuals to any 'nudging' initiative based on an assumption of irrationality.

The conclusion that group decision-making adheres more closely to game theoretic predictions carries through to other games with strong social components, albeit with some important qualifications. Groups donate less in the dictator game (Luhan et al., 2009), more easily fall prey to the 'tragedy of the commons' (Gillet et al., 2009), and compete more aggressively on repeated price competition (Bornstein, 2008). Kugler et al. (2007, cited in Charness and Sutter, 2012) conducted a study featuring a 'trust game'; where either individuals, or groups of three subjects each, were in the role of first- or second-mover. They found that groups send significantly smaller amounts (by about 20 per cent) as first-movers, and also return on average smaller amounts. Charness and Sutter cite this as evidence that group choices are closer to the standard rationality paradigm. According to Charness and Sutter: 'the bottom line emerging from economic research on group decision-making is that groups are more likely to make [rational] choices that follow standard game-theoretic predictions, while individuals are more likely to be influenced by biases, cognitive limitations, and social considerations'. To demonstrate their point, they speculate that 'in a business environment, one might find it personally nearly impossible ever to fire anyone, even if the result is that one's business goes bankrupt'. But it might be possible to achieve this end by being part of a committee that makes such decisions. However, they note that the literature supporting their conclusions is still young and also emphasise the reliance of their own conclusions on laboratory studies (rather than, for example, observations of business practices). This underlines the importance (as is the case with the current review) of considering evidence obtained by other means.

Discontinuity, group rivalry, competition and cooperation

The above findings from behavioural economics which demonstrate more self-interested 'rational' behaviour among groups are in line with the 'discontinuity effect' in psychology where, in circumstances of social interaction, (compared with individuals competing with other individuals) groups have a tendency to be more competitive and less cooperative with other groups (Forsyth, 2009). A possible interpretation (Charness and Sutter, 2012) is that groups are more concerned with their own group's monetary payouts and thus disregard more frequently the payouts of other players (ie those within their own group). In some cases, the tendency to greater competitiveness and self-interest may induce groups to actually depart more strongly than individuals from standard game theoretic predictions.

Social psychology has provided compelling evidence that intergroup behaviour is qualitatively different from that between individuals, and that individuals are prone to behave differently in intergroup situations. For example, Insko and colleagues (eg Insko et al., 1987)⁵⁹, using the Prisoner's Dilemma and other similar strategic dyadic games, compared individual and group decisions, where the latter were

⁵⁸ Müller and Tan, F. (2013) provide an exception. In a Stackelberg game (where players are firms that must decide sequentially how much output to produce), they find that group play diverges from the game theoretic solution more than individual play.

⁵⁹ Cited in Song (2008)

operationalised by the majority vote of the group members on whether to cooperate or not. Their studies showed that intergroup relations of this kind were significantly more competitive and less cooperative than interpersonal relations.

Considering evidence across social science disciplines, a generally mixed picture arises with respect to the impacts of rivalry on decision-making. Referring to a sporting context, Kilduff et al. (2010) suggest that perceptions of rivalry can lead to more emotive and 'nonrational' behaviour. They show data demonstrating that (when there is some level of group or organisational identification on the part of individual members) rivalries motivate individuals to help their groups and organisations succeed because of the increased psychological stakes of competition. In turn, greater effort on the part of individual members will generally lead to greater collective performance. They note the extent to which members of a group are working independently versus interdependently may complicate the rivalry-to-performance link, but do not elaborate on how this would manifest respect to contexts outside sport. Interestingly, however, they suggest that research in sports settings is conducive to understanding research in organisations, given that many of the core elements of organisations, such as hierarchy, teamwork, and the importance of strategic decision-making, are present.

Evidence from behavioural economics suggests that competition between groups can lead to negative behaviours and greater risk taking. Abbink et al. (2010) studied a 'contest' game in which agents competed for a prize by engaging in wasteful expenditures. Expenditure levels in contests between groups were much higher than in contests between individuals, and both exceeded the levels predicted in a perfect, rationality environment. Sutter et al. (2009) found that, in auctions, groups bid significantly more and are thus more likely to fall prey to the 'winner's curse'⁶⁰. Goette et al. (2012) noted that the presence of cues that enhance competition between groups generates a taste for harming out-group members without justification (anti-social punishment). Trust and reciprocity are said to be intertwined because one party's action prompts another's response, the anticipation of which in turn motivates the first party's action.

Sutter et al. (2013) suggest that the extent to which decision-makers behave strategically is determined by the extent to which they expect their competitors to behave strategically and to hold strategic assumptions regarding their own behaviour (this ties in with studies of peer influence described in the section on 'cultural drivers'). Sutter et al. showed this is more likely to occur in team rather than in individual settings. Furthermore, expectations of reciprocity and trust from a counterpart may influence one's own level of trust and reciprocity respectively. Experimental work conducted by Song (2008) in a laboratory context has shown the level of trust exhibited by the trustor is positively correlated with his or her expectation of the level of reciprocity that will be exhibited by the counterpart in the exchange, both when he/she is acting as an individual and as a group-representative. Group-representatives were given the responsibility of unilaterally and privately making a decision on behalf of a three-person group. Results showed that people trust less and reciprocate less as group-representatives, thus demonstrating – according to the authors – that the interindividual-intergroup discontinuity effect not only exists in group behaviour but also in individual behaviour of group-representatives. Given that

⁶⁰ See Glossary

one might expect some decisions in organisations to be made jointly and others to be made on behalf of others (or some combination of the two), this is a useful finding and indicates a substantive difference between the tendencies of individuals and groups, even when the latter are represented by an individual.

Information-sharing

Summary

- Groups reputedly have access to a larger pool of knowledge than individuals. However, an experimental finding that groups focus on and discuss shared information at the expense of unshared information has been well replicated.
- People are perceived as more competent, knowledgeable and credible when they share information that others already know.
- Experimental results suggest that using teams in organisational tasks can subsequently improve the skills of employees in individual tasks; ie there are strong positive spillovers on the quality of individual decisions. A potential implication is that following teamwork, individuals are more difficult to 'nudge' although the evidence examined in this review does not indicate this has been tested experimentally.

Groups reputedly have access to a larger pool of knowledge than individuals (see, for example, Hamilton et al., 2010). As a result, in some tasks, groups can outperform even the best individual member (Maciejovsky et al., 2013). A finding that groups focus on and discuss shared information at the expense of unshared information, thus leading to their failure to uncover hidden profiles⁶¹ has been well replicated (Stasser, 1996)^{62,63}, Winquist and Larson, 1998)⁶⁴ however, found that pooled (discussed) unshared information impacted positively on group decision quality when groups were given a sufficient amount of time to reach consensus. It appears that people prefer to both receive and present information that is shared (Wittenbaum et al., 1999)⁶⁵. Finally, Brodbeck et al. (2002) and Greitemeyer and Schulz-Hardt (2003)⁶⁶ showed that group members do not like to change their initial preferences once formed. Thus, hidden profiles, which lead to biased individual preferences, can also lead members to misinterpret new information that is inconsistent with their already formed preferences. Kerr and Tinsdale (2004) suggest that 'the dominance of shared information may also reflect group satisficing: if all of the members of a group know something, it probably does have more validity than something that is only known by one member. Ideas that are shared among the group members will dominate because they require no additional justification – new ideas presented by only one person will need further elaboration and will only be influential to the degree that they appear to be important.' They also conclude that

⁶¹ A 'hidden profile is a paradigm that involves sharing out information across group members prior to discussion so that each member possesses an incomplete set, but all possess an overlapping portion. The only means of the group having access to the whole set or 'profile' is by members voluntarily pooling their own 'hidden' information during discussion.

⁶² Cited in Kerr and Tindale (2004)

⁶³ This is in accordance with the assertion made by Cass and Hastie (2015) that in some circumstances groups '*emphasise what everybody knows instead of focussing on critical information that only a few people know.*'

⁶⁴ Cited in Kerr and Tindale (2004)

⁶⁵ Cited in Kerr and Tindale (2004)

⁶⁶ Cited in Kerr and Tindale (2004)

'people are perceived as more competent, knowledgeable, and credible when they share information that others already know'.

Maciejovsky et al. (ibid) suggest that teams (of two) offer an advantage due to being able to share, test, validate and help implement these strategies within the group. An explanation of the authors' findings would be the 'truth wins' (or 'Eureka') scenario described above, where a knowledgeable minority of group members can convince the majority by demonstrating the correct solution. It is interesting to note that Maciejovsky et al. observed significant knowledge transfers from team decision-making to subsequent individual performances that took place up to five weeks later, indicating that exposure to team decision-making has strong positive spillovers on the quality of individual decisions. A possible learning point from this result - and one suggested by the authors - is that using teams in organisational tasks can subsequently improve the skills of employees in individual tasks. A potential implication is that individuals, following teamwork, are more difficult to 'nudge', although the evidence examined in this review does not indicate this has been tested experimentally.

Uptake of advice

Summary

- Decision-makers give more weight to advisors whose preferences are similar to their own and have been correct in the past. Those who have more information at their disposal are given more weight than advisors with less accurate records.
- The best predictor of an advisor's influence is the level of confidence attributed to the advisor, confidence being 'the strength with which a person believes that a specific statement, opinion, or decision is the best possible'.
- Consultation is a key ingredient of many deliberative processes. The best predictor of an advisor's (ie 'messenger's) influence is the level of confidence attributed to the advisor.
- When in-house advice is poor, autonomous decision-making by individuals in organisations may offer advantages. This situation possibly also presents an opportunity for an external 'nudge' to have a positive influence.

Influence of advisors

Experimental findings regarding the influence of advisors arguably have potential applicability to the advice-seeking behaviour within organisations. The nature of the 'messenger'⁶⁷⁶⁸ has implications for the weight attributed to the message. Kerr and Tindale (2004) report a general finding that advisors influence 'judges' (ie decision-makers), but judges give their own positions more weight (Harvey et al., 2000; Yaniv and Kleinberger, 2000)⁶⁹. They also give more weight to advisors whose preferences are similar to their own (Harvey et al., ibid). Advisors who have been correct in the past or who have more information at their disposal are given more weight than advisors with less-accurate records (Budescu et al., 2003)⁷⁰. However, the best predictor of an advisor's influence is the level of confidence attributed to the advisor,

⁶⁷ See Glossary

⁶⁸ Note the relevance of this to the 'messenger' element of MINDSPACE

⁶⁹ Cited in Kerr and Tindale (2004)

⁷⁰ Cited in Kerr and Tindale (2004)

confidence being 'the strength with which a person believes that a specific statement, opinion, or decision is the best possible' (Kuhn and Sniezek, 1996; Van Swol and Sniezek, 2002)⁷¹.

Isopi et al. (2014) describe consultation as 'a key ingredient of many deliberative processes' and report on an experiment designed to test whether prior consultation within a group affects subsequent individual decision-making in tasks where demonstrability of correct solutions is low (ie not obviously apparent as the right solution when identified). In finding that the opportunity to consult with others generates lower performance, the authors discuss the 'unrecognised curse of consensus'. They observe that face value interpretation of these data is that consensus 'makes you feel good and perform worse'. This result highlights the potential negatives of internal consultation within organisations although, as the authors, acknowledge consultation may lead to better outcomes in other settings, even when demonstrability is low.

The above result suggests that autonomous decision-making by individuals in organisations may offer advantages. It also suggests a potential susceptibility of leaders who might otherwise make good decisions to poor advice. The finding that the level of confidence in advisors is a key factor in the uptake of advice is unsurprising; an issue for an external influencer (such as government) to consider is how they are perceived in that respect and what if anything can be done if confidence is low.

Engagement

Attention to 'how' messages are delivered and the extent to which they are tailored to the needs of the recipients is clearly of interest to government, although the current review (with its focus on decision-making) did not yield insights on this theme that could be considered with certainty to be generalisable across different policy areas and organisation types. In an ethnographic study exploring regulation in the financial sector, Perezts and Picard (2014) argue for 'a personalised approach' to regulation and cite a need for regulations to be actively interpreted by professionals, formulated into specific compliance practices, and couched in managerial logics' thus 'translating them into recipes to be implemented by and within organisations'. It seems likely that the wider literature on compliance, especially with respect to 'what works' in particular regulatory contexts, would yield further, possibly more generalisable, insights of this type.

In a review for DfT, Pangbourne et al. (2014) conclude that many different types of umbrella organisations have different roles to play in terms of how they provide a route to engagement with member organisations. They suggest that organisations that have individual membership bases were viewed as the most efficient route for engagement within organisations as a way to win hearts and minds and change identifiable practice that is linked to those individuals. With respect to influencing public sector organisations, support from a 'credible guru' is recommended in a DfT thinkpiece (Marsden et al., 2009). Local delivery partners are said to prefer to learn from local or regional peer groups as there are greater networks of individuals, trust in the knowledge exchanged and an understanding of the contextual differences that may be important. However, the current review did not find empirical evidence on this

⁷¹ Cited in Kerr and Tindale (2004)

topic in the wider academic literature or identify findings which can be applied to engagement across diverse types of organisations with confidence.

Groupthink

Summary

- 'Groupthink' is a noteworthy phenomenon that runs counter to theories predicting superior decision-making in groups compared with individuals.
- It is characterised by conformity to group values and ethics and high group cohesion, strong and directive leadership, and a sense of urgency in decision-making.
- Groupthink has been invoked as a contributing factor to a range of disastrous decisions made historically by government and large commercial organisations.
- There is an apparent contradiction between the hypothesised negative effects of groupthink and the attenuation of incorrect cognitive biases demonstrated in laboratory experiments.
- Resolving this is hindered by the difficulty of reconciling evidence from laboratory studies with (retrospective) case study and anecdotal reporting.

Much of the evidence reviewed above suggests that group decision-making tends to alleviate the biases exhibited by individuals. Groupthink is a noteworthy exception to this rule. The Merriam-Webster dictionary⁷² defines groupthink as: 'a pattern of thought characterised by self-deception, forced manufacture of consent, and conformity to group values and ethics'. The conditions for groupthink are said to arise where there is high group cohesion, a strong and directive leader, and sense of urgency in decision-making (Kerr and Tindale, 2004). Groupthink has been invoked as a contributing factor to a range of disastrous decisions made historically by government and large commercial organisations (Janis, 1982)⁷³. A number of unsuccessful, modern-day UK government interventions have also been attributed to groupthink (King and Crew, 2013).

Groupthink has also been linked with the natural tendency of individuals to under-respond to bad news, or even ignore it (a behavioural bias which is well recognised; see, for example, Eil and Rao, 2011). Intuitively, taking full stock of bad news causes considerable stress and anxiety, and is generally associated with negative feelings. As a result, people often tend to downplay its relevance, for instance by doubting its precision. Bénabou (2012) argues that group interactions amplify this phenomenon, through a process he calls Mutually Assured Delusion (MAD). The underlying idea is that if other people in the same group (or, more concretely, organisation) engage in delusional wishful thinking and turn a blind eye to bad news, this increases an individual's incentives to do the same. 'Irrational exuberance' (Shiller, 2005) is thus socially contagious; this occurs when others' ignorance of bad news causes a negative externality which worsens the situation and thus makes bad news even harder to accept'.

In an experimental study utilising a computerised investment task, Street and Street (2006) examined the effects of escalating commitment on ethical decision-making. The 'escalation framework' as a model of faulty decision behaviour implies that undesirable behaviours are the expected outcome of continued commitment to a failing course of action. This is based on the premise, derived from previous

⁷² <http://www.merriam-webster.com/>

⁷³ Cited in Sunstein and Hastie (2015)

research, that decision options promising relief from escalating situations are likely to be very appealing. In an organisational context, these unethical choices may primarily be driven by practical considerations, such as the economic costs of maintaining the current failing course of action. An unethical option may thereby be viewed as a pragmatic response to a losing situation. As noted by the author, this scenario is synonymous with a groupthink scenario and raises the questions of how situations of this type can be averted either within the organisation itself or by the intervention of external parties. The negative behaviours attributed to groupthink also chime with findings reported above on the negative effects of inter-group rivalry (eg the work of Goette et al., 2012, demonstrating punishment to out-group members).

More generally, there is an apparent contradiction between the hypothesised negative effects of groupthink and the attenuation of incorrect cognitive biases demonstrated in many laboratory experiments. Kerr and Tinsdale (2004) note that probably the main contribution of the (groupthink) theory in the long run will be the provocative research that it spawned, research that has shown us that constructs that typically are seen as positive aspects of groups (cohesiveness, collective efficacy, etc.) do not invariably lead to improved group outcomes. They note that 'although the historical illustrations and logic of groupthink remain compelling and are often cited in textbooks on groups, the research support for the theory has been quite mixed'.

Groupthink is explored in only a small portion of the literature identified for the present REA, possibly reflecting its orientation towards rigorous studies that do not or cannot address groupthink. In a review (1991) Hart comments 'real-world replications [of groupthink] often lack in analytical rigour, while laboratory replications are plagued by the seeming impossibility of incorporating more than only a very limited number of variables in their designs. In particular, experimental studies of groupthink have rarely succeeded in creating the kind of decisional stress that is a crucial element of the preconditions for groupthink outlined in the Janis model.' It is likely that a literature search specifically targeting groupthink would go further towards clarifying the conditions that give rise to the phenomenon. The issue of reconciling evidence from laboratory studies with (retrospective) case study and anecdotal reporting would nonetheless remain. A potentially interesting line of enquiry surrounds the question of how disasters attributed to 'groupthink' can be averted either within an organisations itself or by the intervention of external parties. This is addressed in some depth by Sunstein and Hastie (2015).

Leadership

A reoccurring theme in the literature on organisations is that they usually involve hierarchies in which some individuals (leaders) take decisions that will affect others (typically, their subordinates). Kilduff et al. (2010) remark that since a few key individuals and decision-makers typically determine a firm's strategy, the dispositions, cognitions and motivations of these individuals inevitably influence firm-level outcomes.

As exemplified by studies reported earlier such as that of Song (2008), one area of interest concerns how being responsible for others affects an individual's behaviour. There is also large body of evidence, originating from a range of social science disciplines, examining what makes an effective leader (ie one who makes good decisions on behalf of his or her group or organisation). An awareness of typical features of leaders provides valuable context when influencing organisations, given the key role of leaders in decision-making. An understanding of different leadership

styles comprises an important part of the overall picture of why organisations behave the way they do.

Self-interest

Summary

- A number of negative tendencies with respect to the integrity of judgement among those entrusted with responsibility have been noted: in particular, managers are prone to self-serving reinterpretations of reality
- In that respect, it has been claimed that manager behaviour does not differ systematically from that of individuals.
- However, laboratory work has demonstrated managers acting more strategically than non-managers, leading to the suggestion that 'if overcoming a bias is directly relevant for business success, this is likely to happen'.
- It may be more fruitful to focus efforts to nudge on leaders who are inclined to act for the common good (ie not those focussed on self-advancement).
- Leaders prefer delegating to those with similar characteristics: thus nudging a designated decision maker in an organisation (ie one personally chosen by or close to the CEO) may achieve similar results to nudging the leader.

In a review of the research on corporate behaviour, Engel (2010) examines how the 'corporate actor' role systematically affects deviations from the standard rational choice model. The author highlights a number of negative tendencies with respect to the integrity of judgement among those entrusted with responsibility: in particular, managers are prone to self-serving reinterpretations of reality (Cox and Munsinger, 1985; Langevoort, 1997)⁷⁷. They take credit for good outcomes and lay blame on the environment for bad outcomes (Clapham and Schwenk, 1991)⁷⁷. They even misperceive objective facts that are key to assessing their position in the market, such as last year's sales, or the percentage change in their industry's sales in the previous year (Mezias and Starbuck, 2003)⁷⁷. Engel concludes that in all of these respects, manager behaviour does not seem to systematically deviate from the behaviour of independent individuals and comments that 'the managerial setting just gives the respective bias its specific form'. However, the author also cites laboratory work (Cooper et al., 1999)⁷⁴ showing managers acting more strategically than non-managers, and concludes that 'if overcoming a bias is directly relevant for business success, this is likely to happen'. This is suggestive that external 'nudges' that have a good business case will elicit a rational response.

As highlighted in the discussion in the previous chapter of structural factors within an organisation, individual decision-makers can have motivations that are arguably at odds with economic forces. The desire for career advancement (meeting targets, showing initiative, etc.) and other personal agendas (approval from peers, personal satisfaction, altruism, etc.) may also be at play (Bonsall, 2009). Hence a course of action that might appear 'irrational' in the context of organisational success might be perfectly rational in the context on an individual's career or personal success. An attempt to 'nudge' a leader away from the latter and towards the former in these circumstances may not therefore be successful. A focus on leaders who are motivated to act for a common good may be more likely to yield success.

⁷⁴ Cited in Engel, (2010)

Buyl et al. (2014) examined the cues for CEOs to delegate decision-making to particular members of the top management team experimentally (in the IT sector). These included the individual's 'expert' functional background (on the assumption they can cope best with the main uncertainties involved in the decision area) and similarity to the CEO. The latter preference was attributed to the self-esteem and self-identity derived from perceived group membership; people are attracted to, like and trust others with similar experiences and/or demographic characteristics. It suggested that in a top management team (TMT) setting, people might prefer working and interacting with others who have similar strategic preferences, as this helps to reduce uncertainty and consolidate their power. Given the proposed link between high group cohesiveness and 'groupthink' (Janis, 1982)⁷⁵ one might question whether acting on this preference improves decision-making, but the author does not address this. It does, however, suggest that nudging a designated 'expert' decision maker in an organisation (ie one personally chosen by a CEO) may achieve similar results to nudging the leader, as a consequence of their likely similarity of outlook.

There is some evidence that flattery can influence behaviour although the effects of this are not always positive. Park et al. (2011) investigated the types of information with the potential to influence the perceived viability of the firm's current strategy. A survey approach was used to investigate whether high levels of flattery and opinion conformity can increase the CEO's overconfidence in their strategic judgement and leadership capability. A main finding was that a CEO's status in the corporate elite was positively associated with flattery (received) and opinion conformity. Overall, the results indicated that CEO self-enhancement arising from received flattery and opinion conformity is negatively associated with subsequent strategic change in response to low performance by the firm. Further analyses suggest that strategic persistence that results from high levels of flattery and opinion conformity directed at the CEO can result in the persistence of low performance by the firm and may ultimately increase the likelihood of the CEO's dismissal. This finding is consistent with the idea that high group conformity can lead to 'groupthink' and decisions to pursue courses of action that are (from an outsider's perceptive) evidently failing.

Risk

Summary

- Recent evidence from influential papers in the experimental literature suggests that being responsible for others makes people more reluctant to take risks (ie demonstrating risk aversion bias), although having the opportunity to explain actions can attenuate this bias.
- An apparent disparity in some of the findings about leaders highlights the importance of considering contextual factors (such as the relationship between ownership and leadership) in particular organisations.
- When the possibility of having to justify one's choice exists, leader bias towards loss aversion is attenuated. This raises important questions about the circumstances in which biases in decision-making manifest. It is also consistent with 'slower' thinking resulting in less bias.
- There is acknowledgement in the literature that the social influences on risk attitudes are poorly understood.

⁷⁵ Kerr and Tinsdale (2004)

Acting on behalf of others can potentially change the behaviour of individuals and affect attitudes towards risk. Reflecting the potentially serious implications of this, there is a significant body of work exploring leadership and risk, encompassing both experimental and applied research.

A commonly cited effect is that of overoptimism. Work is cited showing that a third of managers estimate their probability of failure is just zero, while more than 80 per cent say that this probability is less than a third (Cooper et al., 1988)⁷⁶. Managers systematically underestimate the strength of their competitors (Zajac and Bazerman, 1991)⁸⁰ and overoptimism is stronger if there are no clear benchmarks (Alicke et al., 1995)⁸⁰: this effect is much stronger in managers than in ordinary subjects (Palich and Bagby, 1995)⁸⁰. This is consistent with the 'planning fallacy' described by Kahneman (2011), referring to a tendency for individuals, business executives and politicians alike commonly to fall victim to this bias, making plans and forecasts that are unrealistic, overly optimistic, and fail to take into account the statistical base-rate of similar cases.

Overoptimism leads to 'too much investment from internal funds, and to too little outside financing' (Malmendier and Tate, 2005). It also makes bidders overly aggressive in corporate takeovers (Roll, 1986; Hayward and Hambrick, 1997)⁷⁷. Interestingly, according to Engel (ibid), managers seem to distinguish between corporate and personal risk. On average, they are not willing to invest more of their own money in their firm when they are directing the firm into major acquisitions (Boehmer and Netter, 1997)⁸⁰. This appears to underline the importance of considering contextual factors (such as the relationship between firm ownership and leadership) in particular organisations. As Armstrong and Huck (2010) remark, 'the separation of ownership from control could leave managers free to pursue their own objectives that may differ from maximising shareholder value'. This scenario highlights the potentially distorting effects of conflicts of interest as well as the significance of governance arrangements in influencing decision-making.

Counter to observations of overoptimism among leaders, recent evidence from influential papers in the experimental literature suggests that being responsible for others makes people more reluctant to take risks (Charness and Jackson, 2009; Eriksen and Kvaløy, 2010). However when the possibility of having to justify one's choice exists, leader bias towards loss aversion is attenuated (Pahlke et al., 2010). This raises important questions about the circumstances in which biases in decision-making manifest. It also consistent with 'slower' thinking resulting in less bias. Given the importance of such phenomena, it is interesting to note the authors' comment that 'we are only beginning to understand social influences on risk attitudes'.

⁷⁶ Cited in Thaler and Sunstein (2008)

⁷⁷ All Engel, 2010

Cooperation

Summary

- Groups perform best when led by those who are cooperatively inclined. This finding is taken to suggest that groups may perform better when led by individuals who are willing to sacrifice personal benefit for the greater good.
- This suggests that organisations whose leaders have a cooperative style may (i) be more successful, and (ii) be less susceptible to nudging interventions (ie those that are designed to correct irrational biases).
- Leadership can be important for role modelling, and those who provide a good example can have a positive effect on followers. The flipside to the influence of leaders on those around them is that bad attitudes can also be easily transmitted.
- The above finding has been linked with the influential effect of social norms (a component of MINDSPACE).

Laboratory studies that have been conducted to explore the inclination of leaders to cooperate include that of Gächter et al. (2012) who investigated the characteristics of effective leaders in a simple leader-follower voluntary contributions game. The study focussed on two factors: the individual's cooperativeness and the individual's beliefs about the cooperativeness of others (employing a similar paradigm to the studies of trust and reciprocity described earlier). They found that groups perform best when led by those who are cooperatively inclined. This was seen as partly being a result of a false consensus effect: cooperative leaders are more optimistic than noncooperators about the cooperativeness of followers. However, it is noted that cooperative leaders contribute more than non-cooperative leaders, even after controlling for optimism. This finding is taken to suggest that groups may perform better when led by individuals who are willing to sacrifice personal benefit for the greater good. Arguably, cooperation minimises the potential of negative biases in decision-making that can result from conflicts of interest (which arise in part from structural, within-organisational factors). This would suggest that organisations whose leaders have a cooperative style may (i) be more successful, and (ii) be less susceptible to nudging interventions (ie those that are designed to correct irrational biases).

Leadership can be important for role modelling and experimental studies have shown that those who provide a good example can have a positive effect on followers by inducing them to contribute more in a common pool environment (Gächter and Renner, 2004, Potters et al., 2005, Duffy et al., 2007, Güth et al., 2007)⁷⁸. The flipside to this is that bad attitudes can also be easily transmitted. Gino et al. (2013) conducted an experiment in which subjects could choose whether their behaviour on a task would be monitored later on or not. They showed that the choice of early movers to avoid being monitored - leading to further subsequent cheating - had a considerable effect on the choices of later followers. The authors concluded that 'having early movers opt for regulation also influences those who make choices subsequently', leading the authors to suggest that a policymaker interested in obtaining compliance with regulation may be able to rely on social influences to achieve this result (much as the 'norms' element of MINDSPACE advocates for influencing individuals). This assertion is unusual in that it represents extrapolation from laboratory results to policymaking and highlights the potential for tapping into

⁷⁸ Cited in Rivas and Sutter (2014).

social norms when influencing organisations. It also highlights the existence of within-organisation 'cultural' norms (discussed further in the section on cultural drivers).

Personal characteristics

Summary

- The personal style of CEOs and other top executives are held by some to be key factors in the determination of corporate practices. These can determine the nature of their investment, financing and other strategic decisions.
- Age and education may be important factors to consider; older managers may be less prone to risk taking and have a less aggressive approach more generally.
- In family firms, the influence of the founder on the decision-making processes, and on the firm's culture and strategic vision, is often highly significant.

There can be a tendency in some of the literature on organisations to refer to leaders as if they were a homogenous group with similar traits, or to discuss them with respect to one dimension, as above with cooperativeness. However, particularly within psychological disciplines, there is a large body of literature on individual characteristics or 'styles' that determine the nature of leaders' investment, financing and other strategic decisions. Bertrand and Schoar (2003) comment that managers imprint 'their personal marks' on the companies they manage. They make the following observations:

- CEOs who hold an MBA pursue more 'aggressive' financial strategies. For instance, on average, they engage in greater levels of investment, hold more debt and pay less dividends.
- CEOs from older birth cohorts appear to be less aggressive, on average, choosing lower level capital expenditures, lower financial leverage and higher cash holdings.

Based on a survey of 1800 SMEs in Spain, Escriba-Esteve, Sanchez-Peinado and Sanchez-Peinado (2009) report several findings that suggest how TMT characteristics such as age, level of education, amount of experience, number of members and number of family members may condition a firm's behaviour in terms of receptivity to change, willingness to take risks, diversity in information sources and perspectives, and creativity and innovativeness in decision-making. In particular, TMT age was found to correlate negatively with risk-taking.

The authors stress that generalisations to other countries and industries should be made with caution. They also make the point that studying the power or influence that one or some of the members (the founder, CEO, informal leaders or group of family-managers) can exert on the team would provide new insights into how managerial teams of SMEs shape their strategic behaviours. They observe that this is especially applicable to family firms, in which the influence of the founder is often highly significant on the decision-making processes and on the firms' culture and strategic vision. (This is consistent with the idea that SMEs are more reliant on the abilities of their managers for decision-making, earlier reported as a 'structural factor'.)

Cultural drivers

Engel (2010) notes that the differences between individuals and groups matter for (i) cognition, (ii) risk taking, and (iii) cooperation. He adds that one also gains additional

insights into the driving forces if one interprets group decision-making as a political process, following the sociological tradition. This section tends towards this interpretation in its focus. This serves to ensure the current review provides an overview of relevant study areas and reflects the full spectrum of literature that met the criteria for inclusion. This section also picks up on the structural issues set out in Chapter 3 and focuses on the social phenomena that linked to organisational setup and shape.

Formation of organisations and corporate identity

Summary

- Hierarchically governed groups can be considered an evolutionally phenomenon which, historically, enabled more coherent decision-making than disorganised collections of individuals.
- The authority of superiors allows them to give orders in such a way that the group's activities are coherently focused on only one set of goals and plans.
- Within-group norms are an important force in driving organisation behaviours. Given the apparently entrenched nature of these norms, groups who are highly cohesive in this respect might be difficult to nudge.
- Case studies of very large organisations illustrate the potential challenges associated with 'nudging them' (although if those challenges are addressed, the potential benefits resulting from a nudge could be substantial).
- Peer influence can occur between, as well as within, organisations: the prevailing local business climate can have a powerful influence on organisation (mis)behaviour.
- On the basis of the reviewed evidence, it is difficult to identify who in practice organisations tend to be more influenced by (for example, by peer behaviours exhibited by organisations in the same sector, region or size band) and which types of decision-making (if any) are resistant to peer influence.

An evolutionary explanation of how and why individuals come together to operate as a single entity can be helpful in understanding the differences between individual and group decision-making processes. Arguably, this level of explanation also supports the view that it is appropriate (at least in some contexts) to approach organisations as a single unit, potentially unified by a common (corporate) identity.

In evolutionary psychology, it is posited that coalitions commonly formed out of groups in order to fulfil a common need. Cooperative coalitions are said to represent 'a type of evolved social exchange which involves alliance formation with more than one individual to collectively achieve a particular goal' (Tooby et al., 2006). Witt and Schwesinger (2013) describe a spontaneous consensus-oriented process of 'palavers and negotiations' (such as the one practised by the hunter and gatherers) as, in principle, a possible default option. They stress that this option is time-consuming and, furthermore, this option is not favourable for assigning tasks coherently. A coordination mechanism in which orders are given by superiors to their subordinates – as becomes feasible in hierarchical relationships – is more efficient in both respects. Moreover, the authority of superiors allows them to give orders in such a way that the group's activities are coherently focussed on only one set of goals and plans (ie those of the superiors). According to the authors, 'hierarchically governed groups coordinating production on the basis of such authority may therefore be able to make decisions faster and more coherently'. Hence as described in Chapter 3,

organisational structure dictates the process of decision-making and potentially increases both the efficiency and quality of decision-making.

In an examination of evolutionary psychology and its potential contribution to business ethics research, Wasieleski and Hayibor (2009) describe cooperative coalitions as ‘a type of evolved social exchange [which] involves alliance formation with more than one individual to collectively achieve a particular goal’. The authors discuss evolutionary concepts in psychology in order to offer alternative explanations of behaviour relevant to business ethics, such as social exchange, cooperation, altruism and reciprocity. They present the argument that groups that survived over the years and were able to reproduce, acknowledged that their long-run interests were realised if they protected themselves from selfish behaviour on the part of a few individuals (Ridley, 1985)⁷⁹. According to the authors, the norms of the group (ie its culture) include the permission rules described in the social contracts. To maintain reciprocally altruistic behaviour, naturally motivated social order rules developed so as to regulate behaviour, such that cheating behaviour would be scorned and punished. The group norms and reciprocity checks thus protected the group from deviant behaviour which would adversely affect the group's ability to propagate. Findings from game theory are cited that are consistent with these assertions, demonstrating the linkages between behavioural economics and evolutionary psychology. This work highlights the key role of within-group norms in driving organisation behaviours. It also suggests that, compared with individuals, organisations in general will be difficult to ‘nudge’, particularly those where behavioural norms are highly entrenched.

Corporate identity

Organisational culture has been described as ‘a system of shared norms, values and expectations that exist throughout the organisation’ (McDevitt et al., 2007). Consistent with this view is Devinney’s argument (2009)⁸⁰ that organisations are ‘social contexts’, making reference to the Stanford prison experiment⁸¹ as an example of how the good and bad characteristics of individuals can be influenced by manipulating the context and expectations in which their actions are embedded. In a review paper, Kirsch, Ko and Haney (2010) examine the antecedents of ‘clan control’, which they define as ‘work-based behaviour motivated by shared norms, values and a common vision’. They propose that team behaviour is monitored by this – a type of informal control – and that it inspires team members to want to be ‘regular’ members of a group. Managerial control is said to only explain part of this: there is a large social or ‘people’ aspect. ‘Formal control’ in contrast is characterised by specification and then evaluation of behaviours with rewards and sanctions.

In a review of corporate culture, Engel (2010) argues that there is a high premium for firms that are able to induce non-self-interested internal cooperation. The most important tool to bring this about is the formation of corporate identity (Akerlof and Kranton, 2005). An example cited is Henry Ford’s ‘five dollar day’. At a time when five dollars was outrageously more than any worker earned in the car industry, Henry Ford created a long-term commitment to a system of political authority. For Ford

⁷⁹ Cited in Wasieleski and Hayibor (2009)

⁸⁰ Cited in Pendse (2012)

⁸¹ <http://www.prisonexp.org/>

workers, 'the labour market no longer mattered' (Miller, 1998)⁸². Arguably the above example (where a standard is set with a potential knock-on effect for the wider labour market) is illustrative of the power of very large organisations and potential challenges associated with 'nudging' them. One could argue, however, that if those challenges are addressed, the potential benefits resulting from a nudge could be substantial.

Peer influence

The findings reported above mainly concern within-group norms. However, applied research has shown peer influence can occur between, as well as within, organisations. A case review by Parsons et al. (2014) showed that rates of financial misconduct among firms differ by up to a factor of three among large US cities. Results suggested that peer effects between managers are, at least in part, responsible for the observed regional correlations. They found that misbehaviour of a firm's management is mainly influenced by local peers of similar size and/or age groups (the mechanism for this is not described in detail), and that cities tend to have corresponding waves of political and corporate corruption. Given that the costs of being caught engaging in financial misconduct are very high for executives (eg career concerns); the authors suggest this demonstrates the powerful influence that cultural norms and the prevailing local business climate can have on a firm's behaviour.

A field study conducted by Kosaka (2004) suggests that the typical Japanese company has a strong tendency to behave similarly to other companies in the same industry. Accordingly, the Japanese firm is always alert to what peer companies do and tries to collect information on other companies' decisions. The author concludes that this leads to a tendency for decisions not to be 'unique and different' from those of their competitors and suggests that this does not encourage top management in many Japanese firms to use logical approaches that follow management or marketing theories in their decision-making.

The small amount of evidence available to the current review on this topic is suggestive that organisations as well as individuals are influenced by the behaviour of peers. However, in the absence of a wide-ranging review, it is difficult to identify who in practice they tend to more influenced by (for example, by peer behaviours exhibited by organisations in the same sector, region or size band) and which types of decision-making (if any) are resistant to this effect.

Business ethics and corporate social responsibility

Summary

- Ethical leadership and the 'tone of the top' are said to be the most powerful factors that shape the organisational culture and the ethical climate prevailing in a corporation.
- Some interventions that have been proposed to tackle unethical organisational behaviour are more direct in nature than 'nudging' and tend towards a regulatory approach.
- The availability of others who believe that a particular act is morally acceptable is positively related to perceptions of social consensus that it is morally acceptable; the possibility of altering these perceptions as a means of influencing organisations to be more ethical has been suggested.

⁸² Cited in Engel (2010)

- Two alternative types of drivers for ethical behaviour should be considered with respect to organisations (and potentially tapped into by influences), ie those that are more sentimental and based on emotion and those that are more utilitarian or 'rational'.
- Ethical organisations may be able to reap a competitive advantage in the form of greater productivity; being ethical may thus be part of an optimal (profit maximising) strategy. The extent to which this is currently a driver for ethical decision-making is unclear.
- The notion that corporate social responsibility may be a possible means to correct social ills has come into focus only recently. There is relatively little known about the ability of market forces to correct for negative externalities and unethical conduct.
- Legacy may be an important driver (although untested): for example, the drive to see an organisation provide enduring value and not place undue burdens on future generations.
- In the absence of penalties, high status can drive unethical behaviour. This suggests that for some organisations, only regulation will be successful in changing their behaviour.

An ethical situation has been defined as 'a situation between human agents in the sense of the action of one person or group having a bearing on another person or group of persons' (Micewski and Troy, 2007). This section reviews the evidence on two themes that emerge on this topic: ethics within organisations and the impact of power and status (or organisational leaders) on their ethical decision-making.

Ethics and organisational culture

Organisational ethics is a field of study in its own right and its findings are relevant to consider for this review given that many government influencers would like to nudge organisations to make choices that are more ethical. Ethical leadership and the 'tone of the top' are said to be powerful factors that shape the organisational culture and the prevailing ethical climate (Majluf and Navarrete, 2011). The authors assessed the impact of a 'compliance and ethics' programme in Chile using survey methodology. Two basic components were identified: an 'explicit' component evident in formal efforts aimed at monitoring the respect of norms and rules, and an 'implicit' component that 'creates a climate favouring ethical behaviour in a way that is 'neither formal nor exact'. Results suggest that both have a significant impact on employees' ethical behaviour and corporate results. The authors recommend that compliance and ethics interventions should include a variety of explicit and implicit strategies and forms of communications, although they do not expand upon these means of influencing further.

A number of sources (eg James, 2000; McClaren, 2000; Minkes et al. 1999; Sims, 1992; Trevino, 1986)⁸³ place emphasis on 'top down effects', viewing corporate directors as key representatives of the ethical standards in a firm. For Majluf and Navarrete (2010) 'they are symbolic figures that embody corporate moral values and are seen as models of ethical conduct'. According to various accounts, the principles espoused by the corporation will induce followers to act in the same way (Dickson et al., 2001; Sims, 1992)⁸⁴, indirectly defining behavioural standards (Trevino and

⁸³ Cited in Majluf and Navarrete (2010)

⁸⁴ Cited in Majluf and Navarrete (2010)

Nelson, 1999)⁸⁵, and reinforcing the institutionalisation of corporate ethical principles (Arjoon, 2000)⁸⁶.

Painter-Morland (2007) argues that a decision maker acts not in isolation but as a reflection of their context, hence moral judgements 'reflect not purely a personal bias but a statement of their wider social network'. The emphasis here is notably on the influence of the organisation on the decision maker, ie the context in which the decision takes place. Similarly, in a business ethics paper, Pendse (2012) argues that a conjunction of motive, means and opportunity creates 'an ethical hazard', making questionable executive decisions more probable. In changing behaviour he distinguishes between influencing the person (such as an individual's morality via training or teaching) and changing the situational forces operating on that person, and stresses that it is more realistic to expect a change in a person's ethical behaviour by acting on the latter. The concept of 'groupthink' is viewed as an illustration of how much impact situational factors can have, 'whether from peer pressure or pressure from authority figures, on an individual's behaviour'. With regard to ameliorating these effects, he advocates a utilitarian approach: for example empowering directors to be independent from CEOs and to take advice and knowledge from sources external to the company, thus encouraging the capacity for whistleblowing. The author also suggests creating a position of 'ethical hazard marshal' to make visible the conditions by which individuals may make unethical decisions. It should be noted that the interventions suggested by the author are more direct in nature than 'nudging' and tend towards a regulatory approach.

A small number of empirical studies which test or quantify influences on ethical behaviours feature in the evidence considered for this review. Pierce and Snyder (2008) examined real-life data about vehicle emissions inspectors, and found evidence of 'ethical spillovers' from organisations to individuals; when individuals work across different facilities, their behaviour conforms to that of the facility that employs them, suggesting that people tend to conform to the dominant corporate culture (be it one of honesty or dishonesty). In general, the literature on peer effects argues that the mere fact of interacting with co-workers has a sizeable effect on individual behaviour, for instance by increasing or decreasing motivation (see, for example, Mas and Moretti, 2009). However, Adriani and Sonderegger (2014) have noted that it is unclear whether this should be classed as a significant behavioural finding, since peer effects are perfectly consistent with rational behaviour (ie there are clear, rational incentives to undertake status-enhancing actions).

With the aim of exploring ethical decision-making in organisations, Hayibor and Wasieleski (2008) conducted a study which focused on individuals' perceptions of the moral intensity of ethical issues (moral intensity being the degree to which there exists a moral imperative in relation to an issue). Their findings showed that the availability of others who believe that a particular act is morally acceptable is positively related to perceptions of social consensus that that act is morally acceptable. They suggest the possibility that perceptions of moral intensity can be actively influenced to reduce unethical behaviour in organisations, although they do not specify how this can be done. Experimental work by Yam and Reynolds (2014) yielded more directly applicable findings. They showed that if an ethically

⁸⁵ Cited in Majluf and Navarrete (2010)

⁸⁶ Cited in Majluf and Navarrete (2010)

questionable behaviour is framed as affecting an identifiable individual as opposed to someone anonymous, then the decision-maker (even in a senior manager role) may be more reluctant to engage in that particular unethical behaviour. For instance, employees will be less likely to engage in unethical behaviour at work if they know that such behaviour will negatively affect the well-being of an identifiable co-worker. The authors argue that their results suggest that a remedy as simple as revealing the name of the victim may be enough to reduce this negative effect. This would appear to demonstrate the power of 'naming and shaming' in driving positive behaviour, although the application of these results from the internal workings of the firm to the external context is not addressed by the authors.

In a discussion focussed on challenging unethical behaviours within organisations, de Colle and Werhane (2008) make a potentially useful distinction between two kinds of capacities, the first requiring the appropriate 'moral feelings', the second centring on a more utilitarian approach. More specifically:

- a) 'The capacity to acquire appropriate moral feelings to appreciate the value of cooperation and society's welfare (thereby taking decisions that are satisfying not only their own interests, or the interests of the shareholders, but also by trying to achieve the greatest happiness for all the company stakeholders, in general)'; and
- b) 'The capacity of being aware (and thereby proactively act in managerial terms) of the possible external benefits of ethical behaviour (such as corporate awards; reputational effects; customer and employee loyalty, etc.) and negative sanctions (such as fines by regulative public authorities; cost of litigation; loss of customers; high employee turnover, etc.) of unethical behaviour'.

The authors' focus in this context is on training (as opposed to influencing), but this categorisation is potentially useful to consider in designing interventions to influence organisations to behave more ethically. The work suggests two alternative drivers should be considered (and potentially tapped into): those that are more sentimental and based on emotion and those that are more utilitarian or 'rational'. In an illustration of the latter, Besley and Ghatak (2013, 2014) argue that by committing to ethical missions companies may be better able to attract intrinsically motivated workers who are willing to put in more effort for less remuneration. In that sense ethical organisations may be able to reap a competitive advantage in the form of greater productivity; being ethical may thus be part of an optimal (profit maximising) strategy.

There is evidence to suggest that consumers, especially in wealthy countries, are willing to pay more for ethical goods (Benabou and Tirole, 2010; Bartling et al., 2014). Here again ethical behaviour may thus prove optimal in the pursuit of profit maximisation. Vogel (2005) investigates the business case for CSR which he conceptualises as 'the market for virtue'. His verdict appears to be that there is a business case, with the first constraint that CSR does make business sense for some firms in specific circumstances and with the second constraint that no researcher has answered the question of whether there is a positive relationship between CSR and profit. However, as Vogel also says, no one has ever proven the opposite.

On the basis of the evidence reviewed, it appears to be too early to reach definitive conclusions on this topic; the notion that corporate social responsibility may be a possible means to correct social ills has come into focus only recently. As argued by

Benabou and Tirole (2010) among others, relatively little is known about the ability of market forces to correct for negative externalities and unethical conduct.

Experimental investigation appears to provide some relevant insights. Bartling et al. (2014) developed a lab experiment in which low-cost production created a negative externality for third parties, but where alternative production with higher costs mitigated the externality. Subjects were divided into producers and consumers, to create a fictitious marketplace to explore whether more expensive-more ethical products survive in this market. Their findings were mildly optimistic in that a non-trivial market share was typically allocated to the ethical product. This market share was, however, strongly affected by production costs, getting smaller as these costs increased (possibly indicating the real-world importance of subsidising the production to ethical goods). This finding illustrates the pragmatic and financial implications for an organisation changing the approach of a core activity (such as production, sourcing of suppliers, sales) to one that is more ethical.

Fox et al. (2010) outline the psychological underpinnings of motivations to leave a positive legacy and the role of personal ethics versus self-interest in legacy activities. They suggest that 'an entrepreneur may see the organisation she created as the collective to which she seeks to provide enduring value by ensuring that she does not place undue burdens on future generations of organisational actors when she retires or sells the firm. Alternatively, she may craft her organisation in such a way as to provide economic benefits to her family or her community, or to safeguard and perpetuate values which she sees as essential to her own identity.'

Fox et al. (2010) also stress that an institutional legacy is a specific form of personal legacy in which the individual strives for symbolic immortality by emphasising his or her connection to an enduring institution (in this case, the organisation) that will presumably exist far into the future. Organisations can create an infrastructure to reinforce their commitment to legacy building in a variety of formal and informal ways. For example, mission statements can emphasise that the organisation aims to leave a positive legacy for future generations, and ethical codes of conduct can highlight that an important dimension of consideration for any decision is the impact of the decision on future generations. Unfortunately the importance of this driver (arguably more pertinent to organisations than individuals) is not explored within the evidence sources identified in this review.

Status, power and ethics

The evidence is mixed surrounding the effects of status on ethical decision-making and it should not be assumed that it is necessarily a harmful influence. A survey of managers showed fairness to be a central anchor for decisions in ethical-dilemma situations (Litschka et al., 2011). The results also provided evidence for the supposed frequent existence of reciprocal altruism. Many also demonstrated commitment to their employees (ie they deemed it wrong that a manager may lay staff off to secure a bonus payment or maintain their salary level).

In a discussion paper Galperin et al. (2011) suggest that status differentiation (as found in organisational contexts via pay dispersions, hierarchical structures and social respect) can contribute to the 'displacement of a person's moral identity by his or her high status group identity'. This occurs because high status group identity is defined as a social identity that is based on membership to a privileged group within an organisation. When status differentiation is high, status cues will be more

prevalent and one's high status group identity will be more salient. Drawing from social-cognitive theory, the authors propose that individuals are more likely to engage in unethical behaviour when self-standards and sanctions that would otherwise regulate and restrain such behaviour are disabled or replaced by a different set of standards. This suggests that in the absence of penalties, high status can drive unethical behaviour. However, the actions that should be taken to address this are not specified. This argument possibly suggests that, for some organisations, only regulation will be successful in changing their behaviour.

Finally (as highlighted in the section on 'social drivers'), unethical choices may be driven by practical considerations, such as the economic costs of maintaining the current failing course of action (Street and Street, 2006). Both organisational culture and the nature of leadership are likely to be contributory in this scenario, which could arguably arise from 'groupthink' (see 'social drivers' section).

Demographic factors

Summary

- There is a small amount of evidence indicating that the gender composition of a team influences the process (although not necessarily the outcome) of decision-making.
- While greater diversity at board level can lead to conflict, dissent and cognitive costs, the benefits outweigh the costs. For example, there is some evidence that women encourage participation by soliciting input from others, and sharing power and information.
- Some generalisable principles guide management decisions, but these principles are slightly adapted when different cultural backgrounds are involved.
- Value systems which guide decision-making may differ from one culture to another: for example, the meaning of concepts such as 'right', 'wrong' or 'justice' may differ.
- Concerns have been raised that behavioural economics research has tended to ignore the role of cultural differences in financial and economic decision-making. In considering the evidence available to this REA, this appears to apply to organisational decision-making research more generally.

There is a small amount of evidence indicating that the gender composition of a team influences the process (although not necessarily the outcome) of decision-making. In a qualitative study which focused on leadership, gender and sense-making (Grisoni and Beeby, 2007) public sector professionals were put into three teams (one of each gender and a mixed team) in a simulated setting. The teams were asked to label behaviours they observed in relation to 'gender-specific' leadership skills identified by the author, linked to different understandings of power. The authors concluded that gender-diverse teams produce more collaborative and creative decision-making processes.

Gender was addressed in a panel investigation (ie a quantitative, observational study) into the extent to which female representation in top management can improve business performance (Dezsó and Ross, 2012). Although most of the correlations they report are relatively small in magnitude, female representation was found to have a strong correlation with the interaction between female representation and innovation intensity. The authors cite a range of field and lab work which has suggested gender-based differences in managerial behavioural tendencies. Women are said to encourage participation by soliciting input from others, and sharing power and information. Evidence is also cited which suggests a tendency to keep

communication channels open with their subordinates, and bolster their subordinates' sense of self-worth.

Dezsó and Ross suggest that having greater female representation at senior level can mean there are more diverse perspectives among the male majority: 'even the presence of a woman with congruent information may stimulate a broader and richer discussion of alternatives and, thus, improve decision-making within the top management team'. They also point towards a body of thought that suggests that greater diversity at board level can lead to conflict, dissent and cognitive costs, but they argue that the benefits outweigh the costs.

Phillips and Loyd (2006) examined the relationship between surface-level and deep-level diversity in groups, and how this impacts on the emotional and behavioural reactions of dissenting group members and the effectiveness of decision-making groups. In this context surface-level characteristics refer to immediately apparent social categories (ie age, gender) while deep-level characteristics are the information, preferences, attitudes and opinions that group members bring to decision-making settings. The authors found no difference in group performance but suggest that the greater expression of dissenting perspectives should lead to greater consideration of alternatives and elaboration of information which should be beneficial for decision-making groups. They suggest that diversity in decision-making groups is not always a proxy for diverse perspectives on a given issue. Members of socially homogeneous groups may also hold dissenting perspectives, but these may be suppressed due to expectations of sameness, and a desire to be accepted and being seen to fit in.

The potential for greater diversity is possibly limited by the tendency of corporate actors to have explicit rules for accepting new members. Engel (ibid) highlights that they can exploit these rules to select members with desired personality traits. For example, historically, the life insurer Met Life made a point out of hiring people for their sales force that had an optimistic bias (Seligman, 1990)⁸⁷. Diversity could be a potentially important feature of groups to consider when influencing organisations known to have a diverse membership.

Cross-cultural issues

Litschka et al. (2011) suggest that formal general principles guide management decisions in practice, but that these principles are slightly adapted when different cultural backgrounds are involved. This issue is highlighted when managers have to decide on which values should guide their decisions: if values of their own company in the home country are valid in subsidiaries abroad, an ethnocentric attitude is at work. Managers may therefore need a well-founded standard for the meaning of 'right' and 'wrong' or 'justice' when dealing with intercultural problems in their business. In an ethnographic study of globally distributed software teams, a tendency was noted for decisions to be made at the location where the 'heart' and 'brain' of the company was seen as residing (Hinds et al., 2013). In one example, 'the decisions [are]...more concentrated in [German city] and here [India] are the executors. That's always the normal functionality.' The authors' observation us that although the power imbalance was acknowledged, it was not contested. They also suggest that language

⁸⁷ Cited in Engel (2010)

may be more salient than nationality, which can go unnoticed when there is a strong occupational culture, or when distance renders some of these differences less visible.

The transferability of experimental evidence across cultures should not be assumed. Bartling et al., 2014) developed a lab experiment in which subjects were divided into producers and consumers to investigate the conditions under which expensive ethically produced products survive. When the study was replicated in both Switzerland and China, the frequency of purchases of ethical products differed markedly between the two locations (it was considerably lower in China), in spite of subjects exhibiting similar social preferences in non-market contexts (which were also tested). In both cases, however, when comparing the subjects' behaviour in market and non-market settings, the marketplace environment was shown to consistently generate less socially responsible behaviour.

Studies within international management research have looked at the implications of cultures on managerial values and ethical decision-making. Noting that software piracy is more common in Asia than in the United States (Donaldson, 1996; Swinyard et al., 1990)⁸⁸ and that job security is a more important ethical concern in Japan than in Canada (Nyaw and Ng, 1994)⁸⁹, Husted and Allen (2008) discuss cross-cultural business ethics with respect to the roles of individualism and collectivism in the decision-making process. The influence of culture is said to be 'always a collective phenomenon, which at the same time consists of values held by individuals'.

Finally, there is a view that behavioural economics research has tended to ignore the role of cultural differences in financial and economic decision-making, for example Levinson and Peng (2007)⁹⁰ found that differences in the effects of framing and loss aversion in Chinese and American students. Results of this type underscore the importance of understanding the influence of cultural background on economic decision-making. In considering the evidence available to this REA, this appears to apply to organisational decision-making research more generally.

⁸⁸ Cited in Husted and Allen (2013)

⁸⁹ Cited in Husted and Allen (2013)

⁹⁰ http://culcog.berkeley.edu/Publications/2007BF_CulturalEconomics.pdf

5) Conclusions and recommendations

This final chapter is intended to draw our insights from the reviewed evidence about the behavioural factors which explain organisational behaviours and influence organisational decision-making. These are presented in a format which directly addresses the original research questions.

What evidence exists which tell us about the underlying drivers behind organisational decision-making?

In regard to this topic, a diverse and extensive evidence base across a number of disciplines exists, only a proportion of which, for pragmatic reasons, could be included in the current review. The behavioural economics literature provides a rich source of data, as do sources originating within social psychology, organisational psychology and management sciences. To an extent these sources fill an apparent gap in the modern 'nudge'-type literature, ie recent models of behaviour produced for the purpose of understanding and influencing behaviours is principally oriented towards individuals making decisions for themselves (and possibly their household). In some respects however the evidence lacks cohesion. In particular there is a disjoint between the numerous laboratory studies which study group behaviour (designed to be context free) and observational studies of organisations which focus on contextual or 'real-world' factors.

How robust is this literature?

The REA methodology was designed with the broad aim of identifying and retaining sources of evidence considered robust and rejecting those that were not. However, inevitable difficulties arise when determining a coherent and consistent set of conclusions from a multidisciplinary evidence base where different definitions of robustness may be present. Generally it can be assumed that with respect to the

particular research question(s), the literature sources cited in the REA present robust findings. The extent to which the conclusions of this REA are robust – as with all reviews of this type – reflects the scope and depth of the review: further more in-depth reviews of particular areas or field testing would be required to ascertain this.

What are the insights from this literature?

Three observations merit particular attention:

- Organisations are more cognitively sophisticated than individuals, and internal procedures can mean they are often better at slower, more rational thinking than individuals.
- Organisations are more competitive and self-interested than individuals. Organisations acting as a group tend to show less trust to other groups than they would as individuals. Entrenched, cultural norms in established organisations may make them resistant to being ‘nudged’. This may have implications for government in trying to influence group behaviour. For example, intermediary organisations may be better placed to do so on their behalf.
- However, the evidence base also suggests the nature of decision-making in organisations is highly context dependent; to some degree biases in thinking associated with individuals will influence organisational behaviour, especially when decisions are made autonomously by a leader or manager.
- The literature is also suggestive (although not directly) of the existence of a possible ‘spectrum’ of decision-making types across and within organisations ranging from ‘individual-like’ to ‘group-like’ behaviour. Structural factors (such as organisation size, shape, sector and decision topic) are likely to be important variables in predicting the conditions which do and do not give rise to particular biases and distortions.

The remaining insights are reported thematically below.

Structural factors

As one might expect, the relative importance of behavioural drivers will vary according to organisational factors such as size, sector and ‘raison d’etre’ (eg whether profit making, representing an electorate). Other key considerations are ownership/governance and market share of the organisation and its concern for reputation based on degree of visibility to the public. A particularly important structural factor is firm size. Research on motivations to comply with regulation suggests that smaller businesses place more importance on economic drivers (ie direct cost advantages of complying). Larger companies are relatively more likely to factor in ‘maintaining reputation with customers’ and ‘protecting staff, customers and the environment. Generalisations based on size can, however, be over simplistic. Within the SME sector, significant differences can exist between businesses employing 250 people and those which employ five: for this reason SMEs in particular may require approaches based on disaggregation (segmentation).

Intersectoral differences with respect to main business activity (ie differences between organisations operating in different business sectors) are also important, as

is the distinction between private and public sector. As might be expected, the prospect of a competitive advantage is a motivating factor for businesses operating in the private sector. Behavioural drivers specific to public sector organisations have received comparatively little attention in the domains of study considered by this REA but there is evidence that, in common with private sector organisations, budget maximisation is often desirable, as is the drive to innovate.

The shape or governance style of an organisation (eg layers of hierarchy; horizontal, vertical or flat structure) is important in understanding the way decisions are made and therefore how to influence behaviour change. For example, centralised, hierarchical decision-making can serve to filter out erroneous ideas at the expense of rejecting other, potentially more creative, solutions. Also, the extent to which an organisation is coordinated is likely to impact on whether a change implemented in one part of an organisation impacts the organisation as a whole more widely.

Organisations will factor the reactions of stakeholders into many aspects of their decision-making; for example those of shareholders (private sector) and the electorate (public sector). In the public sector low public acceptability can quickly undermine commitment to take action. In the corporate world a shift towards increased transparency and disclosure of interests served is seen as influential in firm-level decision-making.

Economically important decisions with far-reaching consequences tend to be taken by teams rather than by individuals; this means in practice that the unit of decision-making in an organisation is a group, although this may vary according to context. For example, as a consequence of their size and resource limitations, SMEs tend to rely more on the abilities of their managers; this may have implications for decision-making quality (see below). There is a suggestion that boards, where they exist, may have a more influential role in smaller businesses than in corporations. However, this has not been fully explored due to the fact that most board research uses samples from large corporations.

It may be appropriate in some circumstances to target points of contact other than senior managers or directors. Because of the way many organisations are structured, middle and junior managers can be key to enabling change and can become barriers to success if excluded. Timing is another structural factor to consider when influencing organisations. If an organisation has a business plan, or delivery deadlines that cannot be disrupted, its decision-makers may be more or less receptive to external nudges at certain times.

Cognitive drivers

In general, organisations are better at slower, more rational thinking than individuals because of the procedures that are put in place before decisions are taken. Recent, high-quality sources of evidence on non-interactive decision-making indicate that groups are more cognitively sophisticated than individuals and that, on the whole, group decision-making tends to alleviate the biases exhibited by individuals. Experimental results suggest that using teams in organisational tasks can subsequently improve the skills of employees in individual tasks; ie there are strong positive spillovers on the quality of individual decisions. Groups also have the potential advantage of access to a larger pool of knowledge than individuals.

However, as is the case with independent decision-makers, those in organisations have to work within three unavoidable constraints: information limitations, limited mental capacity and time. This means organisations may be content to rely on simple rules of thumb (such as imitating the behaviours of well-performing rivals) rather than on explicit calculation of complex optimal strategies. Therefore organisations are not immune from 'cognitive minefields', and reliance on 'MINDSPACE-like' drivers can apply in some circumstances. The influence of 'messenger', 'incentive', 'saliency', 'priming' and 'affect' can result in departures from 'rational' behaviour as can mis-estimation of risk. Studies addressing social and cultural factors identify other elements in common such as 'ego' and 'norms'. Experimentally it has been shown that cognitive biases known from individuals also work on groups but that 'situational and procedural contexts' dictate when this occurs.

Senior managers in particular can be prone to self-serving reinterpretations of reality and may, for example, underestimate the strength of their competitors. At the same time, recent evidence from influential papers in the experimental literature suggests that being responsible for others makes people more reluctant to take risks (ie demonstrating risk aversion), although having the opportunity to explain actions can attenuate this bias. An apparent disparity in some of the findings about leaders highlights the importance of considering contextual factors (such as the relationship between firm ownership and leadership) in particular organisations.

The position in the lifecycle of a business may make a difference in how 'nudgable' an organisation is. There is evidence that entrepreneurs in particular are prone to be influenced by availability, representativeness and anchoring when evaluating business opportunities and that they often rely on hunch and intuition. This needs to be balanced with evidence suggesting that SMEs are more risk averse than larger businesses (because of limitations in their ability to process and analyse information objectively). The relationship between business size and risk perception, or tendency towards any other cognitive bias, is not a simple one and available evidence does not allow this to be determined with certainty.

Social drivers

A distinction can be made between taskwork (the skills involved in the execution of a task) and teamwork (the social processes that regulate interaction among group members). Social interactions therefore play an important role in the functionality of a team independent of the collective skillsbase of the group.

Competition is an important driver of behaviour for groups. Intergroup relations are significantly more competitive and less cooperative than interpersonal relations. Compared with decision-making as individuals, laboratory results show that people trust less and reciprocate less as group representatives. Organisations are likely to operate strategically in relation to one another; the extent to which groups of decision-makers do so is determined by the extent to which they expect their competitors to behave strategically. This ties in with the finding that peer influence can occur between, as well as within, organisations: the prevailing local business climate can have a powerful influence on a firm's (mis)behaviour.

In seeking advice from others, organisational decision-makers give more weight to advisors who they see as similar to themselves. However, the best predictor of an advisor's influence is the level of confidence attributed to them. Advisors who have

been correct in the past or who have more information at their disposal are given more weight than advisors with less accurate records. A possible implication of the above finding is that when in-house advice is poor, autonomous decision-making by individuals in organisations may offer advantages. This situation possibly also presents an opportunity for an external 'nudge' to have a positive influence.

In a real-world context, different agents may be pursuing their own personal interests rather than the organisation's interests. The resulting conflicts of interests often come at the expense of organisational efficiency. Agents with vested interests in the status quo may have an incentive to block change, even when this would benefit the organisation as a whole. Groups perform best when led by those who are cooperatively inclined. This finding is taken to suggest that groups may perform better when led by individuals who are willing to sacrifice personal benefit for the greater good.

'Groupthink' is a noteworthy phenomenon that runs counter to theories predicting superior decision-making in groups compared with individuals. This is associated with the scenario of a highly cohesive group being led by a strong leader who is pursuing a course of action that is clearly unethical or simply failing. An apparent contradiction between the hypothesised negative effects of groupthink and the attenuation of incorrect cognitive biases demonstrated in group experiments is not addressed directly in the literature identified for the present review.

Status (especially when status cues are salient) may cause individuals to adopt different, ie lower, standards of behaviour. This suggests that in the absence of penalties, high status can drive unethical behaviour. There is some evidence, however, that fairness is an important driver: experimental work indicates that it can be a central anchor for managerial decisions in ethical-dilemma situations

Cultural drivers

From an evolutionary perspective, structured organisations have come into being because achieving 'spontaneous consensus' is not possible with large groups, and conducting a series of 'palavers and negotiations' is too time-consuming. Hierarchically governed groups are able to make decisions faster and more coherently than disorganised collections of individuals. Within coordinated groups, social norms and reciprocity form important functions such as preventing deviant behaviour which could ultimately be harmful to the group as a whole. Explanations at this level highlight the key role of within-group norms in driving organisational behaviours. This viewpoint also suggests that, compared with individuals, organisations in general will be difficult to 'nudge', particularly those where behavioural norms are highly entrenched.

Studies of corporate culture stress the importance of 'shared norms, values and a common vision' and there is a high premium for firms that are able to induce non-self-interested internal cooperation. The most effective tool to bring this about is the formation of corporate identity; this in part explains the power of very large organisations and the potential challenges associated with 'nudging' them.

In shaping the organisational culture and the ethical climate prevailing in a corporation, ethical leadership and the 'tone of the top' are said to be the most powerful factors. A change of heart (or mind) at chief executive or board level is therefore likely to have repercussions across the whole organisation. Ethical

decision-making is not solely driven by moral concerns: other important drivers can be consumer pressure and public perceptions (eg bowing to social pressure to avoid reputational backlash. Legacy may be another significant motivator for ethically responsible behaviour. In influencing organisations to behave more ethically, two kinds of drivers have been identified (and can potentially be tapped into): those that are more sentimental and 'feelings-based' or those that are more utilitarian or 'rational'.

Managers are perceived as having their own styles which can determine the nature of their investment, financing and other strategic decisions. Demographic factors may be relevant, such as age and education; older managers may be less prone to risk taking and have a less aggressive approach more generally. In family firms the influence of the founder on the decision-making processes and on the firm's culture and strategic vision is often highly significant.

There is a small amount of evidence indicating that the gender composition of a team influences the process (although not necessarily the outcome) of decision-making. There is some evidence that women encourage participation by soliciting input from others, and sharing power and information. It is also apparent from the literature that the generalisable principles guiding management decisions need to be slightly adapted when different cultural backgrounds are involved. Value systems which guide decision-making may differ from one culture to another: for example, the meaning of concepts such as 'right', 'wrong' or 'justice' may differ. Concerns have been raised that behavioural economics research has tended to ignore the role of cultural differences in financial and economic decision-making.

Transferability of insights

With respect to the various findings presented in this REA, there is likely to be a mixed picture in terms of their transferability to policy-making areas. Experimental studies (conducted with groups in a laboratory setting) are intended to be applicable to all similar decision-making scenarios but do not normally address important contextual factors that could limit their 'real-life' transferability. In contrast, insights obtained from observational work with actual organisations may be more directly transferable to behaviour in the real world, but in a limited context (ie to settings similar to the one observed). The general conclusions presented in this REA have resulted from rigorous synthesis of individual findings and are intended for transfer to policy-making as far as the source literature allows.

Generalisability of insights by sector/size/type

The focus of the available academic literature meeting the criteria for this review appears to be strongly oriented towards behavioural drivers of profit-making organisations. Although the REA's search terms and sift strategies were developed with the aim of being inclusive of material that could be applied to the public sector, in practice the ability to do this was constrained by the nature of the literature reviewed: academic research that is ostensibly focussed on organisations in a generic sense tends - on examination - to be more applicable to profit-making entities. There is also a tendency for authors discussing organisations to assume the structures common to large companies are found in all environments. The evidence base selected for review also had very little to offer in the way of insight into B2B influences.

Within this caveat the range of applicability is still likely to be broad. As a result of the exclusion criteria used for the academic documents included in this REA, there was a strong bias towards sources reporting generalisable insights. Many reported findings (particularly those conducted in an experimental setting) are intended by their respective authors to be applicable to all types of organisation; there is no reason, for example, why experimental lab studies examining small-group decision-making should not be relevant to groups of decision-makers working in the public sector or small businesses. However, caution should always be applied, as when applying all findings obtained in controlled environments to address real-world issues.

Business-to-business activities

There is a paucity of evidence in the reviewed literature about the nature of influences up and down supply chains or, more generally, about how organisations influence each other in a real-life context. Experimental findings indicate that compared with individuals, groups have a tendency to be more competitive and less cooperative with others (ie other groups). A generally mixed picture arises with respect to the impacts of rivalry on decision-making. While some findings suggest that rivalry can lead to more emotive and 'nonrational' behaviour, there is also evidence that rivalry motivates individuals within groups and organisations to perform well because of the increased psychological stakes of competition. There is also a suggestion in the literature that some organisations may resort to imitating the behaviours of well-performing rivals as a 'rule of thumb', but the prevalence of this strategy is unknown.

Optimal moments for working with organisations

There is a possibility that decision-makers in particular situations (such as business startup) or in particular contexts (where fast decision-making is required) may be particularly susceptible to biases in thinking. There is also a possibility that 'windows' of opportunity exist to influence the behaviour of organisations depending on the timing of the intervention and the perceived credibility of the influencer.

The birth of a business represents a special case in the sense that entrepreneurs generally face considerable risks at the point of startup. It has been observed that 'plunge' decision-making can be required at this stage, which involves acting on intuition and hunch (ie 'fast thinking' as opposed to 'slow thinking'). This raises the possibility that this early stage in the life of a business may be a good time to introduce a 'nudge'; this insight may be more pertinent to sectors where there is a lot of business startup activity, compared with those populated by mostly established firms. Further research would be required to identify other potentially optimal moments to influence the behaviour of businesses, for instance moments in their life cycle, business cycle or financial cycle.

Who to target for organisational change interventions

A key consideration is whether it is more or less effective to target specific individuals within an organisation or to treat the organisation as a collective group.

Our evidence suggests a change of heart (or mind) at chief executive or board level is likely to have repercussions across the whole organisation. However, an important

aspect of organisations is that they are groups, so decisions are likely to be made by (as well as on behalf of) more than one person. Deputies, boards and middle management may be involved in, consulted on, or potentially lead decision-making depending on the nature of the decision.

Knowledge of the structural aspects of targeted organisations (for example, their size, shape and coordination setup) is important in making any judgement about who to target and how. Thinking beyond size and sector seems to be important: for example, organisational shape will have implications for the nature of internal communications and the influence of individuals in particular roles. Further research would be required to identify specific individuals whom it would be more or less effective to influence within organisations with regards to particular topic areas, for instance, in relation to business support, access to finance or environmental issues.

Possible limitations of the evidence base

As noted earlier in this report, the reviewed literature, with its predominantly academic orientation, is light on practical recommendations. There is a general tendency for authors to provide evidence on the drivers of organisational decision-making but to stop short of recommending effective means by which an external party could utilise these drivers to exert influence.

Also, an apparent disjoint between some findings reflects the general tendency of social science domains to be more self-contained, which is also indicated by the lack of citations from one discipline to another. For example, results from studies demonstrating the reported advantages of groups (eg collectively attenuating individual tendencies to cognitive bias) and others citing the hypothesised dangers (such as those associated with groupthink) would seem incongruous.

A common criticism of much small-group research is that it oversimplifies an obviously complex set of processes. But it does provide evidence that is relatively 'context-free' and therefore meets a requirement of the current review to obtain potentially generalisable conclusions that could be transferable to a range of organisations and decision types. A key question is how corporate and other organisational settings moderate the effects established in experimental economics or psychology.

The literature also raises unanswered questions about the existence of a possible 'spectrum' of decision-making types across and within organisations, ranging from 'individual-like' to 'group-like' behaviour. Structural factors and decision topic are likely to be important variables in predicting the conditions which give rise to particular approaches.

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Annex A: Methodological documents for search, sift and data extraction stages

Research criteria employed in sift for quality of academic papers

Table A.0.1 Originating research areas of 3* and 4* sources retained for final sift stage (ie scoring stage) as classified by ABS Journal Guide¹.

ABS Research Area
Economics
Entrepreneurship and Business Management
Business Ethics and Governance
Finance ²
General Management
Human Resourcemanagement and Employment Studies
International Business and Area Studies
Information Management
Innovation
Marketing
Operations Technology and Management
Organisation Studies
Psychology
Public Sector Management
Sector Studies
Social Science
Strategic Management

¹ <http://www.associationofbusinessschools.org/sites/default/files/Combined%20Journal%20Guide.pdf>

² On advice from academic partner, the retained sources in this area were limited to those originating from the following publications: Journal of Finance, Review of Financial Studies, Journal of Financial Economics, Review of Finance.

Inclusion criteria for first sift

Inclusion criteria for academic paper search 'hits' (title+abstract).
To be eligible for inclusion all boxes should be ticked

FOR INCLUSION	COMMENTS
<input type="checkbox"/> Source found in academic publication	<p><i>Exclude</i> theses, dissertations, conference proceedings, 'standalone' abstracts, magazine articles or opinion pieces and sources not linked to a publication or with reference details missing</p>
<input type="checkbox"/> Source addresses <i>decision-making behaviours</i>	<p><i>Note:</i> sources should be included regardless of whether they address 'real-life' decision making or not, eg experimental studies in which participants are asked to make a decision as a team or group should be retained</p> <p><i>Note:</i> if drivers/motivators of decisions are unspecified or not mentioned in the abstract please retain the paper for second sift so full text can be inspected</p> <p><i>Note:</i> retain papers which use synonyms of 'decision-making' or any phrases that indicate the full paper content could address decision-making behaviours</p>
<input type="checkbox"/> Source refers to decision-making <i>at organisational level</i>	<p><i>Include</i> sources about behaviour at individual level only if it is clear that this refers to decision-makers <i>within an organisation</i> (for example one area of interest is whether the evidence indicates small businesses make decisions the way individuals do)</p> <p><i>Note:</i> in principal this review is interested in organisational activity in the widest sense. <i>But exclude</i> papers that focus on internal HR function, such as line management, employee engagement, performance management and within-organisation relationships between management and employees</p>
<input type="checkbox"/> Source contains <i>potentially generalisable</i> evidence	<p><i>Note:</i> the only sources that should be excluded under this criteria are single case studies that (i) do not test or develop relevant theory nor (ii) compare aspects of the described case with findings in the literature. Please retain all case studies which are linked to theory and/or reference a comparator (as well as papers describing collections of case studies) for second sift</p>
<input type="checkbox"/> Source addresses <i>one or more research questions</i>	<p>Please see proposal for comprehensive list of these; retain for second sift if in doubt</p>

Table A.0.2 Criteria for scoring generalisability of findings (G)

Score	Criteria
5	Generalisable to all decision topics/ areas of activity and all types of decision-making groups*
4	Generalisable to all decision topics/ areas of activity but only specific types of decision-making groups* (eg SMEs, particular types of leaders)
3	Specific to single topics/clusters of topics but potentially generalisable to all decision-making groups*
2	Specific to single topics/clusters of topics and specific types of decision-making groups*
1	Specific to a single topic only and one type of decision-making group*
0	No apparent generalisability at all (eg case study of a single company)

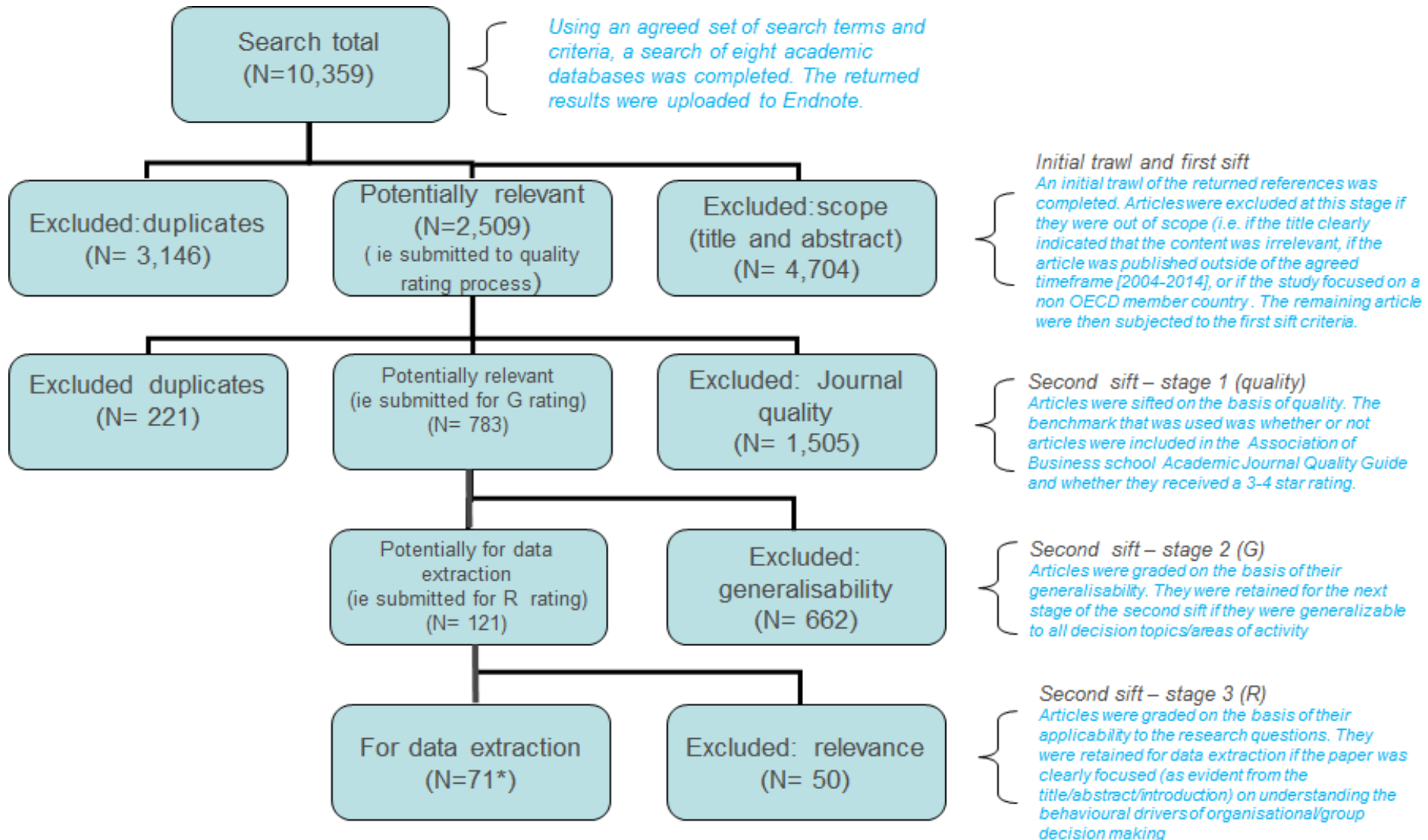
Table A.0.3 Criteria for scoring relevance of findings (R)

Score	Criteria
5	Clear focus of paper (eg evident in title/abstract/introduction) on understanding behavioural drivers of organisational/group decision-making AND these are explicitly compared with behavioural drivers of individual decision-making)
4	Clear focus of paper (eg evident in title/abstract/introduction) on understanding behavioural drivers of organisational/group decision-making but no explicit comparison with the individual context)
3	Some discussion of behavioural drivers of organisational/group decision-making in the full paper; but understanding these is not a clear stated aim in title, abstract or introduction of the paper
2	Reference to drivers of organisational/group decision-making; but unclear as to whether they can be described as 'behavioural' (paper potentially useful for answering secondary research questions about context)
1	Reference to drivers of organisational/group decision-making; but not strictly 'behavioural' drivers (paper potentially useful for answering secondary research questions about context)
0	No description of drivers relevant to this study (although 'zeros' would have expected to have been eliminated in the first sift)

Data extraction template

Source ID and type	Reviewer	<i>Insert initials</i>	
	Document author(s)	<i>Use first field of Endnote</i>	
	Document title	<i>Or first line of text if no title</i>	
	Year of publication		
	Country of origin		
	Article type	<i>Select from drop-down menu</i>	
	Article type	<i>Provide detail if 'other'</i>	
	How was source identified?		
	Or 'key' doc	<i>Select from drop-down menu</i>	
	Full text location	<i>Insert link if available or 'P drive' etc</i>	
From second sift	G' rating (if applicable)		
	R' rating (if applicable)	<i>Select from drop-down menu</i>	
Approach/design	Very brief summary of what author(s) set out to do	<i>Select from drop-down menu Title will suffice in some cases</i>	
	Article Sub-type	<i>Article Sub-type Provide detail if 'other'</i>	
	Design (if research study)	<i>Select from drop-down menu Provide detail if 'other'</i>	
	Unit of study	<i>Select from drop-down menu Provide detail if 'other'</i>	
	Characteristics of described population	<i>Select from drop-down menu Provide detail if 'other'</i>	
	Business to business content?	<i>Select from drop-down menu - also see column AK</i>	
	Drivers of o	Behavioural drivers of organisational decision making identified/described by author	<i>List these</i>
		Other identified drivers of organisational decision making	<i>List these</i>
		Organisation type (public, private sector etc)	
		Industrial sector or main business activity	
Organisation type (public, private sector, charity social enterprise etc)			
Organisation size			
Time in the lifecycle of a business (e.g. birth/incorporation stage; growth stage; mature stage)			
Time in the business cycle (i.e. the cyclical fluctuations in GDP)			
Time in the In a financial year?			
Topic, eg environmental issues, access to finance, business support etc			
Leaders and other decision makers who act on bel	Other factor(s)		
	List insights into behaviours of leaders		
	List insights into behaviours of leaders when influenced/consulting with others		
	Is it more or less effective to influence specific individuals within an organisation, or to treat the organisation as a collective group on which to attempt influence?	<i>Please note any observations which have a bearing on this question</i>	
	Are there individuals, or combinations of individuals, with whom it is more or less effective to influence within an organisation?	<i>Please note any observations which have a bearing on this question</i>	
	Any behavioural insights into how businesses seek to influence other businesses?		
	Any comment about whether insights gained can be useful for Government?	<i>This could be view of author or deduced by researcher - please say which</i>	
	Any other comments on transferability of insights?	<i>This could be view of author or deduced by researcher - please say which</i>	
	Anything else relevant/interesting?		
	Application to pi		
Other	Any issues with interpreting the paper?		
	Any comments on 'fit' between this form and format/content of evidence source		

Results of sift stages (academic literature identified by search)



*Additional academic sources not included in this total were reviewed on the advice of the consortium's academic partner.

Themes/policy areas of documents rejected at second sift stage, scoring low on generalisability yet high on relevance to research questions

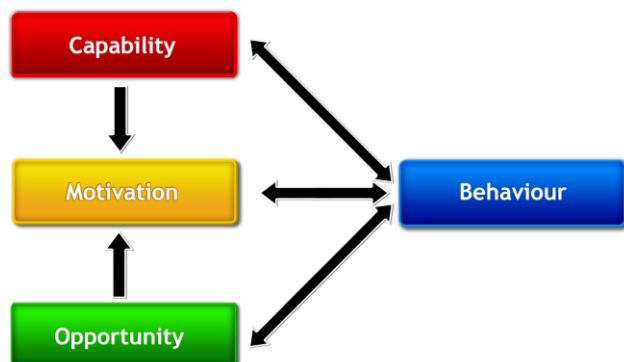
Policy area	No. articles*
Compliance	62
CSR	57
Environment	52
Finance (tax)	21
Finance (other)	124
Food	2
Health and Safety	3
Innovation	43
IT	18
Transport	9
Wellbeing	6
Other areas and activities	12

*Note that these categories are not mutually exclusive.

Annex B: Examples of behavioural change models

COM-B

Figure B.1 COM-B Model



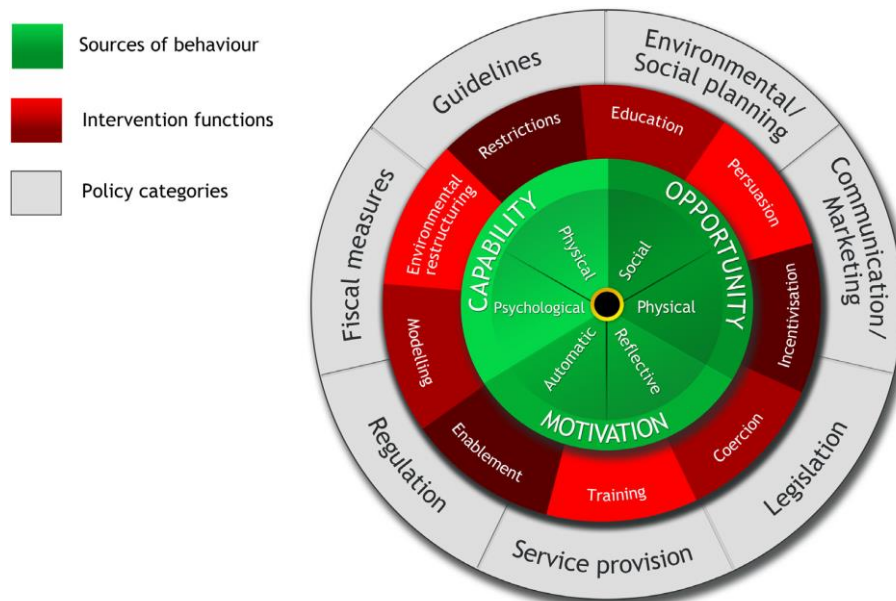
Source: (Michie et al., 2011).

COM-B (short for Capability, Motivation, Opportunity - Behaviour) is a framework with the aim of applying theories of behavioural change in order to improve intervention design in multiple and heterogenous contexts, building upon critiques of other frameworks such as MINDSPACE¹ for being 'intended as a checklist for policymakers of the most important influences on behaviour' (Michie et al., 2011). There are three conditions at the centre of the COM-B system: capability, opportunity and motivation.

¹ Institute for Government: MINDSPACE; Influencing behaviour through public policy. Institute for Government, the Cabinet Office, 2010

Behavioural Change Wheel

Figure B.2 Behavioural Change Wheel



Source: (Michie et al., 2011)

The three essential conditions of the COM-B framework underpin the core of the Behavioural Change Wheel (BCW) which identifies nine 'intervention functions' through which to address deficits in the three capabilities. Furthermore, the BCW contains seven policy categories which are seen to enable these conditions to occur.

Annex C: Examples of behavioural economics approaches

Behavioral economics is concerned with replacing the useful but idealised assumption of perfect rationality with more realistic models, consistent with what is known from psychology, neuroscience and sociology. To achieve this goal, the discipline of behavioural economics uses evidence from psychological studies on the limits of computational ability, willpower, and the influence of emotions like envy, guilt, and moral obligation on individual behaviour.

Traditionally, behavioural economics has relied heavily on laboratory data (and to a large extent continues to do). Experiments are a rich source of clean data on decision-making, which would otherwise be very difficult to obtain. Their major advantage is that experimental control is exceptionally useful for distinguishing between different explanations, as it allows individual effects to be singled out.

Fully-fledged organisations are hard to study empirically, and the empirical literature on organisational decision-making is at best scattered. Case studies and field experiments are of course possible, but cannot establish full control (as argued above). On the other hand, it is also easy to see how designing experiments that mimic decision-making in organisations may prove challenging. An organization is defined as a group of people who work together for a shared purpose (often profit maximisation). Organisations are characterised by a long list of specific features: their hierarchical structure, the nature of the market they operate in, the way in which information is obtained and shared, their incentive system, and so on. It would be overly-optimistic to imagine that such a multifaceted environment can be reproduced in a lab. However, what is possible is to focus on one feature at a time. Why is this useful? In line with our discussion above, the underlying premise is that the behavioural implications of different specific features of organisations can (and, to some extent, should) be teased out in isolation, and that this can be done in lab conditions.

This leaves open the question of how representative is the subject pool (typically composed of students). Fréchette (2009, 2014) reviews and interprets the available evidence on the possible biases that arise from having students as subjects in lab experiments. He argues that, in most of the cases for which a task or game has been studied in multiple samples, the results are surprisingly consistent. Qualitatively similar results often carry over from professionals to other populations, for example to undergraduate students.

Examples of experimental setups

Individual and group decision-making under risk

The experiment

In this example (drawn from Charness et al. 2007), subjects were confronted with a computer screen divided into two sides ('left' and 'right'), from which they could draw 'cards' that were face down. The subjects were informed that there were two equally likely states of the world (I and II). In the first possible state (state I), the right side of the screen contained six black cards, while the left side contained four black cards

and two white cards. In the second possible state (state II), the right side of the screen contained six white cards and the left contained two black cards and four white cards. The possible scenarios are summarised below (black cards are indicated by a cross).

	<i>Left side</i>	<i>Right side</i>
<i>State I</i>	ooXXXX	XXXXXX
<i>State II</i>	ooooXX	oooooo

Only black cards carried a positive value (ie would be converted in money at the end of the experiment), while white cards did not. Subjects were asked to select one card from the left side of the screen. The card was then revealed and replaced, and the face-down cards on the screen were then re-shuffled. The subjects would then select another card either from the left or from the right side, knowing that the state of the world would remain the same as for the first card, and this card was then revealed. Subjects were paid according to how many black cards they uncovered. There were three different treatments: one in which individuals acted as decision-making units, one with pairs acting as decision-making units, and one with three individuals acting as decision-making units. Subjects in groups were permitted to talk to each other.

'Rational' strategy

Suppose that a subject draws a black card from the left side. The probability of drawing black from the right side is then equal to the probability that the state is II. This is equal to:

$$Pr (II / black on left) = \frac{\frac{1}{2} \times \frac{4}{6}}{\left(\frac{1}{2} \times \frac{4}{6}\right) + \left(\frac{1}{2} \times \frac{2}{6}\right)} = \frac{4}{6}$$

In contrast, the probability of drawing black from the left side is at best equal to 4/6 (and at worst equal to 2/6). Hence, the optimal choice in that case is to choose the second card from the right side. A similar argument establishes that, after having drawn a white card from the left side, the subject should draw the second card from the left again.

Findings

In groups of three subjects, error rates were less than half the corresponding rates with two-subject groups, and these were themselves lower than individual error rates.

The 'dictator's game'

The so-called dictator's game is an example of an interactive setup first developed by Kahneman et al. (1986). In this game, one agent (the 'dictator') is handed a sum of money which he or she then may or may not share with another (passive) agent. Clearly enough, the dictator's decision is conditioned by social preferences and moral considerations. As has been shown over and over again, many players in this game decide to share, in spite of there being no externally enforced incentives to do so (dictators are free to choose not to share at all, if they wish, and this is made quite clear to them). The interpretation is that, differently from the standard 'homo

oeconomicus' paradigm, people may be altruistic (at least up to a point), or they may suffer a direct disutility from behaving unfairly/unkindly.

The weakest link game

The experiment

In this illustration (drawn from Feri et al., 2010), each decision-making unit had to simultaneously choose one number out of seven (1 to 7). Payoffs increased in the minimum chosen by all decision-making units but, fixing this minimum, decreased in the own number (the matrix below gives exact payoffs).

Columns: smallest number chosen by all decision units
Rows: own number

	7	6	5	4	3	2	1
7	130	0	0	0	0	0	0
6	-	120	0	0	0	0	0
5	-	-	110	0	0	0	0
4	-	-	-	100	0	0	0
3	-	-	-	-	90	0	0
2	-	-	-	-	-	80	0
1	-	-	-	-	-	-	70

In an example with three units, suppose that unit one selected 3 and unit two selected 4. The best action for unit three would then be to select 3, ie the lowest number consistent with keeping the minimum chosen by all decision-making units untouched. Suppose now that unit one and unit two both selected 7. Then unit three should select 7 too. In fact, this outcome would leave all decision-making units better off than in any other case.

There were two treatments, in all of which the game was played by five independent decision-making units. In one treatment, the decision-making units were single individuals. In the other treatment, the decision-making units were teams of three individuals, who could communicate via electronic chat.

Findings

In the 'teams' treatment, average numbers were considerably higher than in the individuals treatment. Moreover, miscoordination (measured as the average of the absolute difference of each of the five chosen numbers from the actual minimum/median) was also considerably smaller in the teams treatment.

Annex D: Taxonomy of factors identified in the REA

Chapter headings and definitions	Factors and definitions	Subheadings in REA
Structural factors <i>Environmental factors that constrain the way organisations operate. These include regulatory obligations, market forces and internal reporting systems and structures</i>	External factors <i>Fixed features of the external environment that constrain the way organisations operate. These include regulatory obligations and market forces</i>	Business size and sector
		Position in the market
		Regulatory environment
		Corporate image and CSR
		Sensitivity to stakeholders and shareholders
	Organisational factors <i>Internal reporting systems and structures that constrain or dictate the process by which decisions are made</i>	Organisational structure
		Coordination and communication
		Conflicts of interest and misaligned incentives
		Internal organisational responsibilities
Behavioural drivers	Cognitive drivers <i>Drivers of decision-making that result from ‘irrational’ thinking that arise from, for example mental shortcuts (heuristics) and unconscious biases</i>	The organisation as an actor
		The organisation as a group
	Social drivers <i>Drivers of decision making that involve interpersonal dynamics, ie the social processes that regulate interaction among group members, exemplified by ‘teamwork’.</i>	Decision-making with a social component
		Discontinuity, group rivalry, competition and cooperation
		Information-sharing
		Uptake of advice
		Groupthink
	Cultural drivers <i>Drivers of decision-making that arise from one’s identity as a group member or leader and the norms within that group</i>	Leadership
		Formation of organisations and corporate identity
		Business ethics and corporate social responsibility
	Demographic factors	

Annex E: Stakeholder consultation

Overview of fieldwork approach

- This fieldwork activity comprised 10 telephone interviews with 'people who understand how organisations behave. The sample comprised established providers of consultancy services, with collective experience of working with a number of bodies across the public and commercial sector, as well as academics from high-profile business schools (an approximately even split of academics and practitioners).
- The primary purpose of this research element was to 'sense-check' the findings emerging from the earlier REA to ensure their real world applicability and relevance: we did not seek to use these interviews to supplement the evidence provided in the former or answer new research questions.

Key insights

General insights

- In considering whether organisations make more rational decisions than individuals, both academics and practitioners were somewhat reluctant to apply the term 'rational', instead suggesting that the decisions of groups are perhaps more risk-averse or more conservative.
- Another interviewee observed that organisational decision-making is slower, but not necessarily improved; organisational decision-makers may think they are more rational than they actually are. This is an effect of institutional frames of reference and what is 'acceptable', 'correct' and 'logical' behaviour.
- There was agreement that decision-making in groups brings a number of benefits, such as perspective sharing and pooling knowledge and expertise across disciplines. This helps to overcome the information limitations of individuals.
- The idea that the unit of decision-making within an organisation is typically a group was called into question by a number of interviewees, irrespective of their occupation. In some circumstances individuals within organisations will take decisions unilaterally and bilaterally, and sometimes unilaterally on behalf of a group (though if these are important decisions they will usually be visible to group members).
- One academic believed that institutional structures and 'logics' that constrain individual and group agency must also be considered. They emphasised that if you want to look at organisational decision-making you have to look at all levels. Decisions are led by internal frames of reference, and are determined by macro structures.

Behavioural factors

- There was broad agreement on the three constraints that affect decision-making, particularly with regards to information limitations and time.

- Some commented that they couldn't imagine any situation where this wasn't the case, and practitioners noted that in a competitive environment businesses would quickly see a drop in performance if they waited until they had complete information on which to base a decision.
- Essentially there is a trade-off between deciding how much information is enough on which to make a satisfactorily robust decision and the speed at which a decision must be taken due to pressures from competitors and the uncertainty that results from inaction.
- There was therefore agreement around the fact that managers often 'satisfice' in their decision-making, although one practitioner stated that this will vary by organisation type, and in highly competitive market environments firms will always strive to find the optimal outcome as a means of achieving superior performance if time allows.
- Interviewees agreed that business actors make decisions based on estimates. However, there were some differences among academics in their understanding of intuition and hunch (the resources used to cope with uncertainty): some seemed to think of it in terms of tacit knowledge that can be validated whereas others ascribed it to inertia and decision-makers not actively trying to find the right information.

Structural factors

- Some practitioners took issue with the finding that boards may not have sufficient insight into the fundamentals of a business to provide a significant strategic contribution to decision-making. They commented that in their experience (some of the interviewees were board members themselves) information is generally available and is shared openly with them.
- One academic agreed with this finding, commenting that organisational governance is best left to managers who are 'embedded' in the company and who fully understand the context in which they are operating and the industry: 'If you make those decisions outside the black box this is a complete recipe for disaster.' However, they did recognise that nonexecutive directors bring certain skills and can act as an ethical constraint on CEOs.
- There was agreement that groups have access to a larger pool of knowledge than individuals (see bullet under general insights).

Social factors

- As well as moral concerns, ethical decision-making in the private sector was seen to be driven by consumer pressure and public perceptions, stakeholder pressures and a desire to enhance employee engagement. In this way, many ethical decisions are in some way related to pressures on the bottom line.
- Others described the adoption of CSR policies as a search for legitimacy (ie being seen to act in the same way as other companies within the industry).
- One practitioner noted that ethical decision-making in the public sector is seen to be driven by a public duty of care (ie the health and wellbeing of a community) and is therefore more deeply rooted than in the private sector. They regularly manage and lead on some ethical agendas (eg reducing carbon emissions).

- One interviewee agreed that by committing to ethical missions, companies may be better able to attract intrinsically motivated workers. Employer ethical branding certainly attracts younger people, who are often driven toward companies with certain value sets.

Leadership

- Some practitioners took issue with the idea that being responsible for others makes people more reluctant to take risks.
- Risk aversion was seen to primarily stem - in the case of the private sector - from pressures on a company's bottom line and from shareholders (though these could equally influence increased risk taking in some instances).
- In the public sector risk aversion stems from the statutory duties and high visibility of these organisations.
- There was broad agreement among both practitioners and academics that the behavioural example set by leaders (the 'tone of the top') has a very significant impact on the way employees behave (eg boards setting the CSR agenda). Strategic decisions emerge from the middle, but the tone is very important. It is not easy to have ethical practices unless you have the tone or the role models at the very top.
- Further, some interviewees commented that it's not just a question of setting a good/bad tone; a lack of tone can also permeate and affect organisational behaviour.
- The private and public sector were not viewed as different with regards to this finding, although in the case of local authorities it was observed that there is a political element to consider with elected council members setting the management strategy or 'tone' (ie how they want the council to deliver to the electorate), alongside the CEO and management team.
- There was also agreement among practitioners that the credibility of an advisor (ie their track record and experience) is important in determining whether or not advice is taken on board. One practitioner also thought that demographic characteristics, such as age, may affect the perceived credibility of advisors. Others stated that the ability of advisors to see things from the businesses' perspective, and willingness to challenge existing practices – while not embarrassing leaders – is important in terms of their persuasive ability.
- One academic was more sceptical, stating that senior managers will seek consultants who will confirm what they want to hear.
- The personal style of CEOs and other top executives was seen to be a key factor in the determination of corporate practices, such as their investment, financing and other strategic decisions.
- One practitioner observed that a CEO's disciplinary background (eg finance, HR) will affect the style that is adopted, and that the effect will be stronger for entrepreneurs/isolated leaders who don't have access to a multi-disciplinary perspective.
- There was strong agreement among academics around the self-serving nature of managers and that this has little to do with management or decision-making, it's just a human way of reacting to things.

- Practitioners observed that managers are commonly unaware of how their performance compares to either their competitors or similar organisations in different geographical areas (in the case of the public sector) in the absence of clear benchmarks. Smaller companies may even lack an awareness of who their main competitors are.
- Cultural norms and the prevailing local business climate can have a powerful influence on firm behaviour. Organisations operating within the same industry are looking at the same potential employees, clients, supply chain; and this leads them to all look the same.
- One leadership coach observed that cultural ideas of strong leadership – such as the need to take quick, decisive action with little wider consultation – can lead to poor decisions.
- Strong cultural norms may also prevail within particular sectors (ie those that are male dominated).
- In the public sector, for instance in LAs, the influence of local and national political climate on organisational behaviour was highlighted.

Generalisability of insights

- A handful of interviewees expressed agreement that caution should be applied when seeking to generalise findings across organisations, even within the private sector.

Optimal moments for working with organisations

- This depends on the sector that the organisation is situated within and their peak times of activity. The months preceding the end of the financial year are a common example of a time within businesses when individuals are averse to being distracted from delivery deadlines.
- Some practitioners also suggested that the optimal time for enacting far-reaching organisational change were when the business had reached a 'crisis point'. In such situations it is easier to make changes that will have far-reaching impacts such as replacing members of the senior management team.

Who to target for organisational change interventions

- Compared with other stakeholders, CEOs were seen to have the largest influence on the ethos that prevails within organisations and so it is viewed as generally more effective to target these individuals, at least initially, when trying to enact organisational change. This can be mediated by the personal style and strength of the CEO, as well as the strength of the prevailing culture (ie if it's deeply embedded and self-sustaining – such as the culture within particular sectors – it can be more difficult to change).
- However, several leadership coaches highlighted the importance of acquiring the buy-in of key operational leaders within an organisation, who have in-depth knowledge of day-to-day operations and command the respect of the wider workforce, for any change initiative to embed and ultimately be successful.

Annex F: Organisational case studies

Aims of the case study fieldwork

The aim of this research element was to obtain illustrative, practical examples of decision-making processes, and to determine the extent to which the findings of the REA apply in a range of organisational contexts. Five case studies were conducted between June and August 2015. Each case study consisted of in-depth face-to-face interviews conducted during site visits, with two senior decision-makers/key operational staff within each organisation.

The five organisations selected for case study varied in terms of size and the sector they operated within. They included:

- a multinational petrochemicals company (approx. 1,700 FTEs - full time employees - worldwide)
- a large environmental consultancy (approx. 400 FTEs in UK)
- a UK-based international aid agency (approx. 460 FTEs worldwide; approx. 230 FTEs based in UK)
- a borough council (approx. 300 FTEs)
- a small data analytics company (12 FTEs, although headcount is expected to double over the next 12 months)

Organisational shape and structure

The organisations included in these case studies differed in terms of structure; this appeared to be partly related to the company size. In line with vocabulary used in the interviews themselves, we have adopted the following typology:

- functional structure – each portion of the organisation is grouped according to its purpose
- divisional structure – organisation is effectively split into separate smaller organisations to cover different types of products or market areas
- matrix structure – hybrid of divisional and functional structures; typical in large multinational companies.

The largest organisation involved in this research – a large, multi-national petrochemicals company – had the most complex structure: what can be termed a hierarchical, matrix structure. A hierarchical organisation structure is pyramid-shaped and has several layers of management and oversight (ie CEO, senior management and middle managers). The number of individuals under each layer of management increases further down the structure. Within this organisation, all employees reported to a country structure (different divisions), while also reporting to one of the company's various functions (eg sales, supply, finance, technology, marketing and HR).

The large environmental consultancy, UK-based international aid agency and local authority included in this research were also structured hierarchically, with multiple layers of management. These organisations, however, were operationally broken up

into separate divisions. For instance, the UK-based international aid agency had separate divisions for their international work (advocacy and education, international development and emergency response) and domestic-facing work (engagement of donors, volunteering and support of fundraising). They reported that this can be quite cumbersome when the work requires coordination across similar functions.

The smallest organisation included in this research, a small data analytics company, had a relatively flat, functional structure. There are substantially fewer levels in a flat organisational structure. In this case, the CEO at the top of the organisation oversaw a fairly large senior management team, one of whom managed two FTEs. Each member of the management team was responsible for a particular function within the business (eg marketing, technology, finance).

Delegation and autonomy

The case study findings suggest that organisational structure and the degree to which responsibilities are delegated to actors and they are able to operate with autonomy, affects how decisions are made within an organisation, as well as the perceived 'quality' of those decisions; these definitions will come from within and will be dependent on the context in which they operate.

One of the selected case study organisations, a UK international aid agency, found their existing structure cumbersome in terms of reaching 'quality' decisions. The organisation is currently implementing a large change programme, which is reviewing and redesigning the charity's ways of working, its system structures etc., to address these issues. Previously, a lot of operational decisions used to get delegated up the line to each divisional director. The old decision-making model tended to go upward. As such, the leadership team dealt with various operational decisions, which were deemed to require their input whether this was actually the case or not.

Some of the decisions put to the leadership team actually related to quite embedded and specialised pieces of work on the ground that were difficult for the team to quickly get to grips with at this level. Describing this approach one interviewee commented:

'As soon as people check an action with their manager, essentially what they've done is delegate upwards because they are waiting for an answer back. We're trying to stop people from checking up the line and to be really clear about the director's remit; their task is to make sure they've involved whoever needs to be involved and then get on and make the decision.'

As part of the charity's recent change initiative, the organisation has been attempting to move towards a more dispersed model of decision-making where individuals directly involved in various projects/ functions take responsibility for these decisions, and aren't checking actions with their line manager. This is undertaken through a project framework. This has a role for a project executive, who is ultimately accountable for decision-making around the project work. However, they do not operate independently. There is an expectation and tradition within the organisation of attempting to reach consensus among the core of the project team. These decisions would be escalated to the leadership team if agreement could not be reached or in cases where the original aims of the project had significantly evolved since inception. The leadership team (divisional heads) have attempted to redefine their role as a ratifying body; they would sign off on operational decisions by assessing whether they were delivering against the charity's strategic objectives.

In this way, the organisation is hoping to systematically push operational decision-making further out into the system and get operational decision-making to happen at the level where individuals have the embedded knowledge and information necessary to devise the most appropriate solution. The generative element of decision-making now happens further down the line.

Another example of how delegation and autonomy affect the nature of organisational decision-making is provided in the case study of the small data analytics company. The structure of the organisation was defined as being relatively flat: while all managers report on an organisation chart to the CEO, the rest of the company does not operate within any hierarchical structure; most of the 12 FTEs are members of this layer of management.

The delegation of responsibilities is flexible. Because this company is so small, individuals tend to be involved, as needed, through more informal exchanges of advice based on relative experience within certain contexts. As one interviewee observed: 'As with any small company, the titles don't really reflect much. They reflect your core skills, but you do what needs to be done.'

In the view of the interviewees, the CEO tries to ensure the maximum delegation and empowerment of their employees. They have managed and overseen the growth of several SMEs in the past, taking businesses from 20 staff to 1,000 staff, and from one-country operations to 20-country operations. In order to achieve this, and stimulate growth within a business, they observed that it is not wise to exercise rigid control over decision-making. Middle managers therefore felt that they had a high degree of autonomy in their role. If other members of the organisation were affected by a decision, or if they were assessing the feasibility of undertaking a particular project, they would consult with their colleagues, but in the end they saw themselves as the ultimate decision maker. This provided employees with a sense of ownership over the company's operation.

The local authority is formally organised by function. However, due to a sizeable restructuring of the organisation in recent years and a marked reduction in the number of operational staff, there is now greater cross-working between the management of various departments. This was seen as a departure from the council's traditional way of operating, which was characterised by a so-called 'silo mentality'. While heads of department have formal, defined job-roles within the council, the reality of decision-making is much less rigid as employees take on a number of cross-cutting roles. This has led to a more 'fluid' form of decision-making, which is necessary given the smaller organisational structure: 'because there are fewer people to do all of the required roles of a larger organisation...because we are so small you do have to wear many hats'. This is facilitated by the high degree of autonomy that interviewees enjoy in their role, the fact that their actions are not micro-managed by the council's three strategic directors, and that multiple services are kept in-house.

This informal operational structure was seen to lead to a more holistic and efficient form of decision-making. This is due to the opportunity it affords to make visible the potential effects/outcomes of a decision on the remit/activities of multiple departments within the council, and because it helps to ensure that their perspective is therefore considered as part of the overall decision-making process. One example of a decision-making area in which this joined-up approach works particularly well is around planning issues where, for instance, newly built public spaces are designed to

incorporate very low costs in terms of maintenance in order to save money for the council across the piece.

Hunch and intuition

Evidence obtained from the REA suggested that managers can rely on hunch and intuition in their decision-making. This was explored in more detail through the case studies. The findings suggest that this appeared to be a more prevalent way of thinking within private sector companies, perhaps due to the heightened pressure to be innovative and creative in order to carve out/increase the organisation's market share.

A distinction was made between two types of planning that would require different styles of decision-making: firstly, 'deliberate' planning where you have defined outcomes and process, and secondly, 'discovery-driven' planning, a more iterative process where you might know ultimately what you want to do or where you want to be in the near future, but you don't have a defined process to get there. The former style was viewed as far more common within day-to-day decision-making than the latter.

It was felt that intuition might be more prevalent in discovery-driven planning. The degree to which hunch might be relied upon would depend on the amount and type of information available, and sometimes an initial 'hunch' might lead to the further development of ideas. From an innovation perspective, interviewees commented that intuition and an individual's gut feeling would typically be relied upon. The consequences of this style of decision-making were viewed as being perhaps less severe for small, growing businesses that were able to take greater risks in order to attempt to establish themselves in the marketplace.

However, it was observed that the wider heavily-regulated environment in some sectors such as petrochemicals means that there are fewer opportunities to innovate or take risks, and thereby fewer situations where hunch and intuition would (or could) play a major role in comparison with other businesses.

Consultation with boards and stakeholders

This research also examined under what circumstances and the extent to which boards are consulted as part of high-level decision-making within organisations. Within the private sector companies included in this research, decisions that concern issues over a certain monetary value require board approval. This value of this financial threshold differed by organisation size. Boards were not seen generally to 'intervene' in day-to-day business practice. It was felt that the word 'intervene' (taken to mean 'stepping out of routine to actually change the course of something') was not appropriate, and the words 'challenge' and 'push back' were suggested as better encapsulating the board's role.

In line with findings from the REA, the leadership team within larger more complex organisations do not feel that the board is always in a position to have an informed view and make a significant contribution to decision-making (private and not-for-profit (NFP) sector). Sometimes they lack key pieces of information when providing recommendations to the executive branch. As such, this advice is not always taken on board.

A possible implication of the findings from the case studies is that the boards of venture capital, private equity backed companies may be better informed on the organisation's operations, given that these businesses are required to provide a great deal of structured visibility to their board, some of whom represent their financial backers. It was felt that in these cases the board will thereby have a clear view of the company's performance and that there won't be any instances where they perhaps lack knowledge or are unable to access information that would prevent them from making informed decisions. However, even in such cases, it was not felt that boards are involved in setting the organisational strategy because they are not close enough to it. This is left to members of the senior management team, subject to board approval.

Other stakeholders that helped set the strategic direction of the organisations involved in this research included the council of elected members in the case of the local authority. Any decision with political consequences, for example a revenues policy, will have to be referred to the cabinet (ie the controlling party). The council's strategic vision defines the direction of decision-making; in this regard decisions are generally seen to be split into (i) outcome, and; (ii) process: the former is defined by members/councillors and the latter by managers. Managers hold autonomy on how a decision plays out while councillors/members define what needs to get done.

Despite this formal separation of responsibilities, there have been some examples of councillors influencing operational decisions on behalf of individual constituents. While this does not significantly affect the council's day-to-day operation, it has to be dealt with sensitively by managers as it is important to avoid embarrassing the elected members and maintain a positive working relationship. This was seen to be common across local authorities in terms of giving leverage in future decisions where a more senior 'rubber stamp' might be required.

Uptake of advice

The case study research also explored situations in which senior decision-makers had received external advice from outside their organisation and their reasons for doing so. Senior decision-makers within private sector companies involved in this research made use of external advice on legislative or legal matters, generally where it was an area of the law that they were unfamiliar with. Interviewees within the small data analytics company commented that their organisation has less resources to make use of such advice, and so will only consult with individuals external to the organisation when absolutely necessary. This will usually be through existing contacts and recommendations from the CEO, rather than any general characteristics /attributes being looked for, as suggested by evidence obtained from the REA.

External influences on organisational decision-making

The context in which organisations operate has an important influence on the nature of their decision-making. For instance, market forces introduce an element of uncertainty into the decision-making process. This is especially acute for new companies. One interview commented that, in such cases, it is unclear whether the market will support what the company does and whether customers will buy-in to what they provide. As such, it is difficult to forward plan and make decisions, for instance, around recruitment when it is unclear what the company's revenue and therefore their cash-flow will be in future.

Client views are also typically sought during the decision-making process within private sector companies. These tend to be collected through customer satisfaction surveys issued by third parties, where resource allows. These views are held in particular esteem by small companies.

The views of external funders of NFP organisations are also considered as part of their decision-making process; the charity is keen to respect the views and interests and the responsibility that they have towards their donors, given the trust they have placed in the organisation. They commented that this relationship is more deeply rooted than the transactional nature of business-consumer and politician-voter relations.

Within a local authority setting, public opinion (or trends) is taken into account at senior management level when developing policies and indeed consultations are seen to be 'public opinion in its purest form'. Officers at the organisation observed that they have no option but to implement the outcome of a consultation, although they do have influence over how the consultation is presented and framed.

Examples of decision-making processes

Large petrochemicals company

Introducing private health insurance for the UK workforce

The UK country HR manager had received feedback from job applicants during various recruitment drives that having no private health insurance was perceived as unusual by prospective candidates and was affecting how the company was perceived externally. As a result, their manager at Executive level, who is based in Italy and reports up to the Executive Board level (ie the Executive Vice President (EVP) of Human Resources), was approached for guidance.

The HR manager was advised to write a proposal to address the issue and to present this to the EVP. However, first the EVP was approached to establish whether or not they would be opposed to introducing this benefit in principle. After it had been established that the EVP was not opposed, the HR manager was asked to ensure that the proposal fully stated the rationale for making health insurance available to the UK workforce. The EVP then provided some guidance points on how best to structure the proposal in a form that could be put to the CEO, which would immediately demonstrate the added value to the company of such a change; that in the eyes of the CEO would provide 'a sort of mandate for it'.

*'If you tell me this is genuinely becoming a barrier to recruitment of the best people, then let's take that seriously.'*¹

The HR manager then proceeded to contact three different private health insurance providers who responded with a series of different options, which were then presented to both the EVP, and their fellow UK-based Executive Board members on behalf of the UK. (There are four Exec Board members, two of whom are based outside of the UK, so it was not felt that their contribution was necessary in this

¹ It was noted here that given the organisation is global, the CEO would not have much of an interest in UK affairs; but that structuring the proposal in the right way would help drive it through the escalation structure.

instance.) Although there is a board lower down in the governance structure solely focused on the UK, serious financial decisions of this kind tend to be made by national directors. The UK board would not normally be vetoed if they questioned any of these decisions on a legislative basis; however, they are not in charge of large-scale financial decision-making.

Based upon the presentation, the UK-based Executive Board members decided on a compromise option, which would involve offering insurance to their employees but not to their families. Following this decision, the EVP spoke to the CEO to inform them of the proposals and the cost implications, and to provide them with more information as to why they had decided to make this decision, which the CEO subsequently agreed to officially.

At this point the HR manager was instructed to begin implementing the company's improved offer to employees. They returned to their manager in Italy, and subsequently again to the EVP in order to advise on how the changes would be communicated company-wide. (The EVP and the HR manager work on the same site as one another, but given the internal hierarchy of the organisation the HR manager usually has to speak with their manager in the first instance.) In this situation, it was important to establish a common understanding as to why the entitlement was being introduced; it was imperative to pitch the message carefully as the private health insurance was only being introduced for the UK workforce.

With this in mind, the EVP communicated these changes to the level of Executives down the chain, who were all treated as recipients of the plan, rather than being involved in the decision-making process. If anyone at Executive Board level chose to disagree, they would have the capacity to raise their hand against it, although it was stressed that this does not normally happen.

Small data analytics company

Example 1: Raising company finances

The company's board had elected to raise another £2million in finance. This was the result of analysis and research over a two- to three-month period that started with a phase of financial modelling undertaken by the CEO and the financial controller. The rest of the management team were then asked for their expert input with regards to market metrics (Marketing Director and Agricultural Business Development Director) and sales opportunity data (Business Development Director). The Chief Technology Officer was also consulted to assess the costs involved in building the products to meet the plan that the other three directors wanted to commit to delivering from a revenue standpoint.

With that plan in place, the CEO and the financial controller updated the financial model to reflect this iteration of discussion and review. In parallel, the feedback and input of a corporate finance advisor (an intermediary between the company and the financial institutions that would loan them this money) was sought to put a transaction together. The next stage was to translate that numbers-based plan into a word-based business plan. This was undertaken by the CEO and some of the FTEs on the technology side.

An early iteration of this business plan was presented to the board alongside the financial model, and they agreed that they were agreeable to signing off on this plan and raising the proposed funds.

Example 2: Developing an employment manual for a newly formed company

The company identified a need to produce an HR manual with only a short timeframe to do so. The drafting of this manual was undertaken by the office manager and financial controller. Their work was based on two existing employment manuals acquired from two third-party providers. These were in line with current HR practices and company law. Appropriate elements were taken from both and adapted for this particular company's business activities. The CEO then reviewed and approved it, and the manual was implemented. The entire process was undertaken within a fortnight. The view was that this type of exercise would typically be undertaken in this way (ie rapidly and based on specimen documents) in the case of an SME.

A similar approach was taken in developing the company's CSR policy. In this case, however, exemplar CSR policies were taken and adapted from one of the CEO's previous business ventures. An additional step was that this policy was submitted for approval by the board of non-executive directors. The policy sets out the company's approach on issues related to waste, energy and travel.

Independent not for profit organisation

Reallocation of resources to a new development project

In response to repeated famines in Niger, the executive branch of the charity made a decision to reallocate a large proportion of the resources that it expends on development work to this region, to enhance its existing work there.

To support this, it was therefore necessary to close down 8-10 of the charity's development programmes in other countries. The decision to identify which programmes to end entailed a 'forensic' study of the organisation's management information where they looked at various factors, such as the costs of the programme, the relationship they had between partners of different sizes, grant size and cost of spending the grant.

The executive branch then took a set of external indicators (eg degree of political corruption, quality of life statistics) and collated this information together with the MI data. On the basis of this information they ranked each programme in terms of its performance against each of these indicators.

Following this, each programme manager within each country was asked to complete a self-assessment to contextualise their work. This covered the project's connections with the relevant church community in England and Wales, its connections with sister agencies that the work could be handed on to, and the potential for institutional funding. The respondents were also provided with the opportunity to specify reasons why the charity should remain within the country in question, outside of these pre-specified criteria, which might be unknown to the executive branch.

On the basis of this ranking, management proceeded to undertake negotiations with the bottom third of the league table, making them aware of their decision to reallocate resources to a particular developing country. Discussions were held regarding the nature of funding and resources that were feasible to leave in place and whether

there were any local partners to pick up remaining work. Once this package of options was agreed, an exit phase was implemented over a time frame that allowed the organisation to withdraw services from these countries responsibly, to enable the charity's resources to be invested elsewhere.

Local authority

Creation of a new scheme for council tax support

In 2012, the Liberal Democrat-Conservative coalition government made a decision to separate council tax benefit from Universal Credit. Through the Local Government Finance Act, local authorities in England were advised that they had to create their own scheme for council tax support to replace council tax benefit in April 2013. Interviewees commented that it was a huge undertaking for the council.

Central government advised local authorities that any new scheme needed to be devised within certain parameters (for instance, it must provide protection for pensioners, and any proposed changes must first go to consultation). Further, local authorities had a deadline for deciding on these changes, or otherwise a default scheme would be imposed.

One of the interviewees, the Communications Control Manager (CCM), was assigned the role of project manager for this task. They began by briefing the corporate management team on the changes and potential options, and how they proposed to approach the decision-making-process. These ideas were then pitched to the council's political leadership, with the officer's recommendations regarding their favoured option, alongside a request to go out to consultation, which was approved.

The next step was to proceed to public consultation on the proposed option for a new scheme. This included a lot of promotion to encourage public participation (eg promotional materials in local shops). The outcome of the consultation was positive with regard to the proposed changes. A finalised scheme was subsequently presented to the council, meeting the central government's stated deadline.

For the CCM, the individual-level decisions that they made during this process included putting together a consultation strategy; planning and writing the consultation; and writing the equality impact assessment and the policies surrounding the new scheme: 'I knew what I needed to do to get this project done, so I made decisions as to what to put into these documents in their infancy.' Those documents were then passed through the legal team and to the CCM's director. According to the CCM there was an awareness that other local authorities were being legally challenged regarding their proposed changes, so theirs needed to be as robust as possible. 'Our elected members don't really influence what goes into policies.'

Upon reflection, the interviewee commented that the final say in this decision rested with the council's political leadership, but that public and legal opinion and the equalities impact required due consideration during this process.