Positioning paper
December 2016

In search of the best available evidence
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This report was written by Jonny Gifford, the CIPD’s Adviser for Organisational Behaviour. It relates in part to two rapid evidence assessments (REAs) carried out for the CIPD by the Center for Evidence-Based Management (CEBMa). The REA findings are published as a main report (Gifford 2016) and two technical reports (Barends et al 2016a, 2016b), all of which are available at cipd.co.uk/coulddobetter
Preface

At the CIPD, we are concerned with helping HR professionals continually improve the quality of work and working lives for the benefit of individuals, organisations, economies and society. Our strategy, Profession for the Future, sets out how we and our stakeholders can continue to fulfil this purpose as the world of work evolves.1

For this to happen, we encourage organisations to focus less on what’s worked well for others in the past (often labelled as ‘best practice’) and more on deciding what is the best thing to do, in their unique circumstances, in order to help create sustainable and successful relationships between people and the business.

Elsewhere, we have called out the need to develop clear underlying principles for HR strategy and activity as one way of achieving such a shift (Zheltoukhova and Baczor 2015). This positioning paper adds to this perspective by making the case for evidence-based practice. HR leaders need to be guided by strong principles yet also informed by the best available evidence on what is most likely to be effective in practice.

The paper also builds on our Valuing your Talent work, led in partnership with CIMA, which focuses on improving human capital reporting and people measures to better understand how people create value in organisations (Houghton and Spence 2016). There is great potential for HR professionals to utilise the rich internal data their organisations generate, but this alone cannot effectively inform management decisions. They should engage with academic research alongside internal people measures to gain insight into what works in people management.

In this paper, we set out reasons why evidence-based practice is so important, before looking at the principles that underpin it, how it can be followed and how challenges in doing so can be overcome. To illustrate, we relate to CIPD research on performance management that is based on a short systematic review of the scientific evidence (Gifford 2016).

This paper relates to a crucial point on strategic decision-making in people management. We hope it offers constructive challenge and adds to existing thinking.

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1 See www.cipd.co.uk/news-views/future-profession
Introduction

Events in 2016 highlighted the challenges we face, not only with an overload of information, but with a concerning level of misinformation. The UK referendum on Brexit was seen to be characterised by a particularly poor standard of debate, including misleading and questionable arguments that nonetheless appeared to be highly influential (Kirk and Dunford 2016, Brett 2016). The remarkable US election surpassed this. A number of sensationalist and blatantly false stories ‘went viral’, by some measures gaining more traction through social media than mainstream news (Silverman 2016). In response, Facebook and Google committed to clamping down on fake news stories using their advertising space (Hern 2016, Pierson 2016).

At root, the problem of unreliable information is nothing new, but our digital age appears to bring it to a whole new level, especially now that many people obtain news through social media – according to one national poll, 62% of Americans (Gottfried and Shearer 2016). The greater the mass of opinion, claims and evidence that is available to us, or that bombards us, the more important it is that we can discern the reliability and validity of that information.

This positioning paper discusses how discerning we are of evidence in the realm of people management. Do employers and HR leaders tend to base decisions on evidence that is sound or shoddy, well validated or speculative, and more importantly, how can we make key decisions in people management more evidence based?

We do this by positioning evidence-based practice in management as a general approach, and illustrating with the particular example of performance management practices. As such, this paper relates to research conducted by the CIPD and the Center for Evidence-based Management (Barends et al 2016a, 2016b, Gifford 2016), which can be found at cipd.co.uk/coulddobetter

This paper argues for two particular considerations in drawing on research to inform management practice:

1. Not all evidence is equal and, in particular, there is a hierarchy of evidence for cause-and-effect relationships.
2. One study is not enough and, far from ‘cherry-picking’ research that supports our pet theory, we should look at the wider body of evidence on a given topic.

Based on these considerations, we argue the case for evidence-based practice, including systematic reviews and meta-analyses, and the lighter version thereof, rapid evidence assessments (REAs).
Leading practice or fads?

We start with the example of performance management. As we note in our report *Could do Better?* (Gifford 2016), the past few years have seen a proliferation of business articles describing how various major organisations are adopting radical changes in how they manage employee performance. As one might expect, the claims of radical change are often overstated, but a more serious drawback to these articles is that they invariably reveal little if any quality evidence on what the impact has been.

This lack of evidence is understandable in some circumstances, as it could relate to commercially sensitive information. But it does mean that such case studies are not a good basis on which to inform other employers’ decisions. They may provide an engaging narrative, but it is simply not enough to know that ‘early innovators’ are doing away with certain aspects of performance management.

Following ‘leading practice’ on the basis of anecdote leads us down the route of fads. What do we mean by management fads? An article by Miller et al (2004) describes ‘eight common properties’ of fads, including that they are novel (but not genuinely radical) practices that are based on simple ideas, in tune with the zeitgeist, typically replete with buzzwords, espoused by high-profile or respected spokespeople and that promise universal results from practices that can be implemented in superficial ways. However, they add, fads are not enduring and tend to die out over a few years.

As well as testing ideas for whether they are fads, we should also question received wisdom. What may have the appearance of a tried-and-tested tradition could be as misguided as the latest trend. The critical thing is to be critical, to not accept any practice as a ‘no-brainer’ because it’s what ‘cutting-edge’ employers are doing, or on the basis that it’s standard industry practice.
What’s the risk?

But, one could ask, isn’t it fair to assume that the practices of successful organisations are worth replicating? Unfortunately, not. For example, take the idea of the ‘war for talent’, developed by McKinsey in the late 1990s (Michaels et al 2001) and still championed by many today. One of the most enthusiastic advocates of the principles and practices built around the ‘war for talent’ was Enron, an organisation that was a world leader at the time but turned out to have a fatally rotten strand.

Moreover, as Gladwell (2002) and others have argued, there is a good case that practices central to the war for talent were directly related to Enron’s demise. Singling out the ‘stars’, rewarding them disproportionately and, as a General Electric executive put it, ‘[not being] afraid to promote stars without specifically relevant experience, seemingly over their heads’ was very much part of the ‘war for talent’ ideal and equally part of the toxic, overconfident Enron culture (ibid).

This is by no means to suggest that organisations that today are following the likes of Accenture and Adobe by ditching annual performance reviews will become the disgraced Enrons of tomorrow. But it is to challenge the uncritical application of perceived ‘best practice’. The risk is not only of catastrophe, but also wasted effort and resources. We argue that employers should be wary of three things in particular:

- what works in one organisational context may not work in another
- spurious relationships, by which impacts assumed to result from a particular practice are actually due to other factors
- unintended consequences, so that even if a practice has some gains, it has other, seriously negative impacts on organisations.
We are naturally susceptible to fads, not only because they are novel, but also because they tap into what can feel intuitively right. The same is true for received wisdom, for the sense that: everyone does it; we’ve always done it this way.

There is good evidence that we should guard ourselves against what feels intuitively right. A core finding from cognitive psychology over recent decades, including the work of Daniel Kahneman (2011) and others, is that we constantly use mental shortcuts or ‘heuristics’ to make decisions (see Banks and McGurk 2014, Gifford 2014). These are mentally efficient and, indeed, necessary to stop our brains from overloading, but they also mean we are highly prone to bias. We may like to think we carefully weigh up the evidence and make considered, ‘rational’ decisions, but typically we do not.

More specifically, it’s understandable that we over-rely on narrative case studies: evidence from behavioural science shows that we are hardwired to be influenced by good storytelling (Kahneman 2011, Herman 2013). We naturally respond to inspiring or otherwise strong narratives on how organisations have turned things around. The critiques of performance appraisals, the rationales for change and the examples of ‘leading practice’ all resonate with us for good reason, but that doesn’t necessarily make them reliable sources.

As we discuss below, case study research can provide excellent quality evidence. But we clearly need to look beyond the more anecdotal, less analytical case studies that popularise ideas such as that of a performance management ‘revolution’.

We should be especially wary of the ‘halo effect’ (Nisbett and Wilson 1977) by which we assume that because certain practices are followed by successful multinationals, they are to be trusted. In the case of performance management, Cappelli and Tavis (2016) note that, because of the ‘sheer size’ of organisations such as Kelly Services, PwC, Deloitte, Accenture and KPMG, plus the fact that they ‘offer management advice to thousands of organisations’, articles describing their apparently new practices are having ‘an enormous impact on other companies’.

That may be the case, but it looks a lot like some of the characteristics of faddishness. Certainly, employers can do better than rely on cutting-edge case studies to answer the critical questions such as: what performance management practices actually improve performance?
Picking and choosing research

It is not uncommon in management practice to hear the argument for using qualitative or quantitative research is that different people can be influenced by different types of data. The suggestion is that some are more ‘figures people’ and others are more ‘stories people’, so this should be taken into account when presenting evidence to decision-makers. There may be some truth in this, but if the suggestion is that different types of data are somehow equally valid, and only a matter of preference, we are on shaky ground.

The argument for a ‘horses-for-courses’ approach to research methods comes not from our preference for or dislike of numerical data. It comes from the fact that different types of data, generated through different research methods, tend to tell us different things.

In-depth qualitative research can give us rich insights into why certain things occur, for example:

• the mechanism and chain of events by which a change happens
• how a change or phenomenon is influenced by particular circumstances or contexts
• whether an intervention is appropriate for particular groups or settings.

Thus, while we point to the weaknesses in anecdotal case studies, in-depth organisational case studies can give excellent quality evidence. They can tie together a range of qualitative insights from people with relevant experience, along with statistically representative ‘hard’ data and quality analysis of secondary sources, such as company documents (for example, Salaman and Storey 2016, Appelbaum et al 2000). Such ‘triangulation’ of research methods and the highly contextual nature of case studies means that, when done well, they can provide very convincing evidence on things such as the reasons for change.

Equally, cross-sectional surveys (collecting data at a single point in time) have their own strengths. They particularly derive from the fact that they can be run with representative samples of wide populations – for example, focusing on all Singaporean employees or all US employers; or sub-groups, such as employees with caring responsibilities, or ethnic minority employees. Such representativeness means cross-sectional surveys are especially well placed to give evidence on the prevalence of certain practices, challenges or opinions.

However, neither qualitative research nor cross-sectional surveys give us reliable evidence on whether certain practices will work in general – that is to say, evidence on cause and effect. For this we need research that is longitudinal – in other words, which compares data collected at different points in time – and preferably controlled, to remove or account for intervening factors that can otherwise give you a ‘false result’.

In search of the best available evidence
The question of which evidence to trust brings us to the principles of evidence-based practice. This combines judicious use of the ‘best available evidence’ with critical thinking that applies this to practice. The concept of evidence-based practice was developed in healthcare, in particular by the Cochrane group, which was founded in 1993 ‘to provide accessible, credible information to support informed decision-making’, reducing ‘the risks of misinterpreting complex content’ and increasing ‘the likelihood of any one person getting a complete and balanced picture’ (Cochrane Collaboration undated).

In management, as in healthcare, by taking a systematic approach to reviewing evidence on the links between cause and effect, we can gauge which evidence is most trustworthy, mitigate our own prejudices and make decisions that are more likely to achieve the desired results.

We start evidence-based practice with a practical question of import. Having ensured this is a researchable question, we look at the range of evidence that is available to us, assess the quality and relevance of that evidence, and weigh up or synthesise the findings to inform practical guidelines that are most likely to yield a good result. By being explicit about the sources, uses and criteria for selecting and prioritising evidence, we make the findings more robust, authoritative and replicable, so that it can be trusted and updated.

This considered approach necessitates an active ongoing relationship between research and practice. It is a way off from taking single studies as providing definitive answers and a far cry from emulating case studies of ‘best practice’.

Scientific research is of course not the only source of evidence that is worth considering. Others have been argued to include:

- ‘Organizational evidence: data, facts and figures gathered from the organization
- ‘Experiential evidence: the professional experience and judgment of practitioners
- ‘Stakeholder evidence: the values and concerns of people who may be affected by the decision’ (Barends et al 2014).

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**Enter evidence-based practice**

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**Box 1: What is evidence-based practice?**

A comprehensive description of evidence-based practice comes from the Center for Evidence-Based Management (CEBMa), which conducted the research on performance management (Barends et al 2016a, Barends et al 2016b, Gifford 2016):

Evidence-based practice is about making decisions through the conscientious, explicit and judicious use of the best available evidence from multiple sources by:

1. Asking: translating a practical issue or problem into an answerable question
2. Acquiring: systematically searching for and retrieving the evidence
3. Appraising: critically judging the trustworthiness and relevance of the evidence
4. Aggregating: weighing and pulling together the evidence
5. Applying: incorporating the evidence into the decision-making process
6. Assessing: evaluating the outcome of the decision taken to increase the likelihood of a favorable outcome.

(Barends et al 2014)
It is also worth noting that evidence-based practice is about blending the use of scientific research with these other sources to deal with practical issues. It is not about making management practitioners more like academics. Academics are indeed in a good position to challenge practitioners to be more critical of evidence, and help them weigh up which sources are more reliable and which findings have the greatest implications. But equally, practitioners are in a good position to challenge academics about making their research grounded in practical concerns – less armchair theorising, more useful to decision-makers on the ground.

Nonetheless, for questions on cause-and-effect relationships – for example, will introducing an alternative to annual appraisals improve performance – we do well to critically assess the scientific research, taking into account its quality and relevance, and weighing up what it suggests. There are two considerations in particular that we should consider: the fact that not all evidence is of the same quality and that looking at one study is not enough. We now look at these in turn.
The hierarchy of evidence

According to the principles of evidence-based practice, the ‘best available evidence’ refers to a hierarchy of evidence on cause and effect. In short, not all evidence is equal.

To illustrate this, the Center for Evidence-Based Management (CEBMa undated) presents an example of going on a summer holiday in Ireland: how do you find out where to go that’s going to have the least chance of raining?

Options could include talking to your friend who’s been to a couple of different places there; or looking at regional rainfall figures for the month of August for the last ten years. The former may be tempting, as we like to hear personal stories, but if your primary aim is to get a dry holiday, the latter is much more likely to get you a positive result.

The same counts for managerial decisions. When making a decision whether or not to use Six Sigma to reduce medical errors in a British university hospital, information such as the outcome of a controlled, longitudinal study with a sample of 150 European university hospitals is more valid and reliable than the personal experience of a colleague who works at small private hospital in Singapore. (CEBMa undated)

Figure 1: A hierarchy of evidence for cause-and-effect relationships in individual studies

Adapted from the Center for Evidence-Based Management (undated)
Among single study designs, \textbf{randomised controlled trials} are considered the ‘gold standard’. Their key characteristics are that they include reliable (quantitative) before-and-after measurements, compare control and intervention groups to see how groups fare with and without the treatment, and randomise the allocation to control or intervention. As well as testing for statistical significance (the likelihood an observed result happens by chance), they measure effect size, that is to say, how big an impact occurs from the intervention or cause under consideration.

\textbf{Controlled longitudinal studies} are less trustworthy than RCTs, but nonetheless provide a good level of evidence. These don’t randomise to intervention or control and thus introduce risk of selection bias (for example, people with a more positive attitude to change being more likely to sign themselves up for a trial).

A lower quality of evidence comes from \textbf{treatment-only longitudinal studies}, as the lack of comparator means we don’t know whether any improvement observed would have happened anyway.

\textbf{Cross-sectional studies} that observe differences between groups at one point in time are less trustworthy again, as relationships between variables could be spurious or the direction of causality could even be the opposite to what you suppose (for example, a correlation between motivation and performance could be due to teams rated as high-performing feeling better about themselves as a result, rather than high motivation contributing to performance).

The point of this is not to say that evidence below a certain level of rigour is invalid, although once you start relying on anecdotes, personal experience or gut feeling, evidence cannot be said to be scientific. But systematically grading evidence allows us to give more weight to that which is better quality.
Even if we recognise the differing levels of evidence quality, there is a perennial challenge in using research to inform decisions, and it becomes no smaller the more research that there is. Look through studies on any management technique or approach and the chances are you will be able to find some research that confirms traditional received wisdom and others that support the counterintuitive or novel; some that say yea and others that say nay.

The temptation is to ‘cherry-pick’ evidence that supports one’s pet theory or natural persuasion, and we can do this looking at research just as we can when we pay attention to the leader who tells an engaging story, or whose political bent aligns with our own. It’s comforting, like Tom Wolfe’s (1975) observation that ‘People don’t read the morning newspaper ... they slip into it like a warm bath.’

It’s important to look at multiple sources; one study is not enough. For one thing, context is vital – what works in one environment may not in another – but even in the same setting, robustly designed studies can give different results. A criticism of pharmaceuticals over the years is that they have conducted several clinical trials on their products, but only published the ones that reflect favourably on their products (Goldacre 2008). Indeed, a selective approach to research allowed tobacco manufacturers in the 1950s to promote (highly incomplete) evidence that smoking was not harmful.

Thus, sitting above all the single study designs are systematic reviews and meta-analyses, which can be considered a ‘platinum standard’. These secondary studies comprehensively review the available single studies (especially RCTs) searching through scientific databases, following standardised criteria for inclusion (for example, in search terms and study designs) and in the case of meta-analysis, calculate the overall effect sizes of the interventions in question. Strictly speaking, systematic reviews need not include meta-analysis, but they typically do and, in line with convention, we use the terms interchangeably.

If the aim is to improve practice – for example, to have methods of performance management that actually improve employee or team performance – you will want to draw on the best evidence you can across the board. The solution to overgeneralising from single studies is to look at the wider body of evidence.
Availability of quality evidence can prove a problem. Although an increasing number of academic papers are made freely available (for example, through Google Scholar), most academic journals, which provide the greatest source of peer-reviewed research papers, are in general not freely accessible outside academia.2

Another challenge is that academic papers can contain genuinely dense information that can be hard to interpret, or are simply written in impenetrable language. Steven Pinker, a cognitive scientist and leading thinker on language and writing style, describes the common suspicion that this is often a deliberate obfuscating ploy:

*Pseudo-intellectuals spout obscure verbiage to hide the fact that they have nothing to say. Academics in the softer fields dress up the trivial and obvious with the trappings of scientific sophistication, hoping to bamboozle their audiences with highfalutin gobbledygook.* (Pinker 2014, p58)

Pinker argues that this view is unfair and that a better explanation is that people (all people, but including academics) suffer from an egocentric ‘Curse of Knowledge: a difficulty in imagining what it is like for someone else not to know something that you know’ (ibid, p59). So we may have some sympathy.

Many academics do manage to write about research in a clear, straightforward way and this is to be applauded. But more than that, it is an imperative. If academic research is to help shape people management practice for the better, it is incumbent on researchers to digest and summarise it, making it accessible to non-specialist audiences and drawing out the pragmatic implications.

Rapid evidence assessments and systematic reviews are one way to link research and practice (Barends et al 2016a, 2016b, Gifford 2016). Additionally, some academics reach out to practitioner audiences through blogs and popular publications, just as some HR practitioners engage with academic research. The CIPD’s Applied Research Conference exists to strengthen the links between these two communities.

Such activity must be encouraged on both sides, so that the divide between academia and practice in HR is lessened and more decision-makers can reap more benefits from the best quality evidence.

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2 CIPD members have free access to a number of peer-reviewed journals publishing high-quality research at cipd.co.uk/knowledge/journals
References


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