

A Reader's Guide to Evidence-Based Management

As the idea of evidence-based practice may be quite new to many practitioners, a carefully selected list of suggested literature may be helpful for those who would like to learn more about it. The Center for Evidence-Based Management provides such a list. This reader's guide gives an overview of its most relevant publications.

Eric Barends

In the past 10 years, a large number of articles and books have been published related to evidence-based practice in the field of management. The concept of evidence-based practice, however, has evolved over time and as a result some of these publications may be out of date or no longer accurate. This reader's guide provides a succinct overview of the most relevant publications. Its purpose is not only to support readers who are unfamiliar with evidence-based practice in management, but also those who are already sold on the concept and wish to deepen their understanding of specific aspects. Needless to say that this guideline is based only on my professional knowledge of the topic, which, although extensive, may be biased and incomplete. All the publications in this overview (with the exception of books) plus further publications on all of the following topics are freely downloadable from the website of the Center for Evidence-Based Management (www.cebma.org/articles).

The basic principles

For those who are unfamiliar with the concept, the best starting point is the booklet **“Evidence-Based Management: The Basic Principles”** (Barends/Rousseau/Briner 2014). This booklet explains in plain and simple English what evidence-based management is, why we need it, what counts as evidence, why evidence always needs to be critically appraised, and what the common misconceptions are. In addition, several examples of how evidence-based practice can help managers make better decisions are provided. Another good starting point is **“Becoming an Evidence-Based HR Practitioner”** (Rousseau/Barends 2011). This paper presents a step-by-step approach to becoming an evidence-based manager, from getting started to integrating evidence-based decision-making into day-to-day management activities. Its key message is that the major issue of evidence-based management is not so much that practitioners lack scientific knowledge, but rather that there is an absence of a critical mindset. The paper was originally written for human resource managers, but also applies to other management areas.

A relevant paper that was, in fact, one of the first publications on evidence-based practice in management is **“Evidence-Based Management”** by Stanford professors Jeffrey Pfeffer and Bob Sutton (Pfeffer/Sutton 2006a). This paper was published in 2006 in the “Harvard Business Review” and is based on their best-selling book **“Hard Facts, Dangerous Half-Truths, and Total Nonsense”** (Pfeffer/Sutton 2006b). It is written in a clear and entertaining style and contains numerous examples of how companies ignore the scientific evidence and, as a result, have spent millions of dollars on practices that are ineffective. Both the paper and the book, however, suffer from a rather limited definition of evidence-based practice.

Evidence from experience

Evidence-based practice is about making decisions through the conscientious, explicit, and judicious use of the best available evidence from multiple sources, including professional experience. Evidence from experience,



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however, can be highly susceptible to systematic errors – cognitive and information-processing limits make us prone to biases that have negative effects on the quality of the decisions we make. An important publication on this subject is **“Thinking, Fast and Slow”** (Kahneman 2011). In this book, Daniel Kahneman, a Nobel Prize-winning behavioral economist, explains the theory of “System one” and “System two” thinking. The book helps to develop an understanding of how both systems work and makes you aware of the biases inherent in System one. A good overview of the most common biases that are particularly relevant in the context of management and business is provided in the book **“The Art of Thinking Clearly”** (Dobelli 2013).

Evidence from the organization

Another source that should always be consulted when making an evidence-based decision is evidence (data and facts and figures) gathered from the organization itself. Nowadays, an increasing number of organizations use statistical techniques to analyze organizational data to identify correlations or build predictive models to support decision-making. The literature on data analytics is massive, but a good introduction to the use of organizational data is the October 2012 issue of the “Harvard Business Review” that is entirely dedicated to the subject. Especially worth reading are **“Making Advanced Analytics Work for You”** (Barton/Court 2012) and **“Big Data: The Management Revolution”** (McAfee/Brynjolfsson 2012). Other, more general introductions on data analytics are Ian Ayres’ book **“Super Crunchers: Why Thinking-By-Numbers is the New Way To Be Smart”** (Ayres 2008) and Nate Silver’s **“The Signal and the Noise: Why So Many Predictions Fail – but Some Don’t”** (Silver 2012).

An academic perspective

In academia, the term evidence-based management was first introduced by Denise Rousseau in 2005, during her presidential address to the Academy of Management: **“Is There Such a Thing as ‘Evidence-Based Management’?”** In the eponymous article published the following year, Rousseau called attention to the huge gap between science and practice, and that management decisions and interventions are thus often based on personal experience, intuition, or popular management models, rather than on the results of scientific research (Rousseau 2006). Since then a large number of academic papers have been published. A relevant paper that was published in 2007 is **“Evidence-Based Management: Concept Cleanup**

Time?” (Briner/Denyer/Rousseau 2009). This paper identifies and clarifies a number of common misconceptions about evidence-based practice in management. In addition, the recently published paper **“Evidence-Based Practice: The Psychology of EBP Implementation”** provides an excellent review of the research on evidence-based practice implementation and identifies critical underlying psychological factors facilitating and impeding its use (Rousseau/Gunia 2015).

The great divide

It is widely assumed that managers fail to apply findings from research into practice, and as a result management decisions are not based on the best available evidence. The discussion of this phenomenon, also referred to as the “practice knowledge gap”, goes back to at least 1949 (Merton 1949) and has been a trending topic in the management literature for almost two decades. As a result, a total of ten special issues of leading academic journals were devoted to this topic, with the most comprehensive being the authoritative “Academy of Management Journal”. In the editor’s foreword **“Tackling the Great Divide”** the implications for evidence-based practice in management are discussed (Rynes 2007).

There is indeed substantial evidence suggesting that most managers pay little to no attention to scientific evidence, instead relying on less trustworthy evidence, such as personal experience and judgment. The most significant research paper demonstrating this gap, entitled **“HR Professionals’ Beliefs About Effective Human Resource Practices: Correspondence Between Research and Practice”** showed large discrepancies between what practitioners think is effective and what the current scientific research shows (Rynes/Colbert/Brown 2002).

Learning from medicine

The concept of evidence-based practice originated in the field of medicine over 20 years ago. In 1992, Gordon Guyatt and David Sackett – together with a group of 30 other physicians – published the seminal article **“Evidence-Based Medicine: A New Approach to Teaching the Practice of Medicine”** (Evidence-Based Medicine Working Group 1992). The article argued that the education of doctors needed to be problem- and evidence-based (instead of knowledge- and teacher-based), and should focus on skills required to make independent judgments about the reliability of evidence. Probably the best overview of how evidence-based practice became the professional standard in medicine is provided in Jean Daly’s book

“Evidence-Based Medicine and the Search for a Science of Clinical Care” (Daly 2005). A shorter and more personal account is provided in **“Teaching Evidence-Based Practice: Lessons from the Pioneers”** (Barends/Briner 2014). In this paper, two founders of evidence-based medicine – Gordon Guyatt and Amanda Burls – are interviewed to learn what lessons the development, dissemination, and implementation of evidence-based medicine might hold for evidence-based management. The most important point in both the book and the article is that evidence-based practice is not just about skills and knowledge, but about an inquiring mind that appreciates the difference between trustworthy and less trustworthy evidence.

Systematic reviews and methodology

From the start of the evidence-based practice movement it was recognized that not every practitioner would have the skills and knowledge to search for and critically appraise scientific evidence. For this reason, the movement promoted production and dissemination of pre-appraised evidence summaries such as systematic reviews that enable practitioners to quickly consult the best available scientific evidence on issues of concern. A good introduction on this topic is **“Systematic Reviews From Astronomy to Zoology: Myths and Misconceptions”** (Petticrew 2001). For those who aspire to conduct a systematic review themselves an important source is **“Systematic Reviews in the Social Sciences: A Practical Guide”** (Petticrew/Roberts 2006).

Teaching evidence-based practice

The Evidence-Based Medicine Working Group that started the evidence-based practice movement strongly believed in the power of education. For this reason, evidence-based practice was first developed as a teaching method in which medical students' practical questions and problems were taken as a starting point, and the findings of research were used to support clinical decision-making. In the past decades, this teaching method was embraced by a large number of schools and universities both inside and outside the domain of medicine. The best starting point for reading about teaching evidence-based practice in the field of management would be the special issue of the *“Academy of Management Learning and Education”* that was published in 2014. In the editor's foreword **“Change the World: Teach Evidence-Based Practice”** (Rynes/Rousseau/Barends 2014), a summary is provided of all the contributions in the issue.

Finally

It should be noted that since the introduction of evidence-based medicine in the early 1990s, many professions have embraced its basic principles as an effective approach to practice and learning. As a result, we now have evidence-based architecture, conservation, criminology, design, economics, education, marketing, nursing, philanthropy, policing, public policy, and social work. With only slight exaggeration it can be said that evidence-based decision-making has become emblematic of what it means to be a professional in many fields. Whatever the context or the issue at hand, it all comes down to the same principles. For this reason, the concept of evidence-based medicine was broadened to evidence-based practice in 2012, thus emphasizing that “evidence-based practitioners may share more attitudes in common with other evidence-based practitioners than with non-evidence-based colleagues from their own profession who do not embrace an evidence-based paradigm” (Dawes et al. 2005). This means that relevant literature on various aspects of evidence-based practice can also be found in other domains.

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