Evidence-Based Management

Fostering Continuous Improvement in the Organization

Watch List

• Despite the large number of articles devoted to evidence-based management (EBM) and the mounting evidence that EBM principles are sound, sufficient evidence on which to base managerial changes is still lacking. Stronger and more rigorous empirical research that explores EBM's effect on organizational performance is necessary.

Related Reports

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Key Takeaways

• EBM refers to the systematic use of the best available evidence to improve management decision making, which in turn can help lead to continuous improvement in the organization. EBM principles derive from the premise that using sound logic and employing fact help managers and leaders become more effective at their jobs.

• EBM principles have their roots in evidence-based practice (EBP), which the medical community has followed since the early 1990s.

• Many managers within organizations are still making decisions based on hunches and hearsay instead of relying on the best evidence available. Researchers say the survival of this practice of management-as-usual is increasingly out of step with organizational needs in the twenty-first century.

• The guiding principles of EBM include confronting the hard facts and hearing the truth, committing to fact-based decision making, and embracing an attitude of wisdom.

• There is some indication that when companies move beyond conventional wisdom and instead rely on evidence-based decision making, they can compete more effectively in the marketplace.

• Despite the large number of articles devoted to EBM and the mounting evidence that these principles are sound, there remains a lack of sufficient evidence on which to base managerial changes.
Evidence-Based Management

Executive Summary

Evidence-based management (EBM) is the systematic use of the best evidence available to improve management practices and decision making. The use of EBM in the organization stands in contrast to conventional practices: Repeating what seems to have worked in the past; relying on potentially false assumptions, such as copying what appears to be successful for others; believing what people think to be true; or following the latest trends written in the business literature and media.

The practice of EBM has its roots in the medical community where evidence-based practice (EBP) has been used for a number of years. EBP focuses on making sound clinical decisions based on the gathering of evidence from rigorous methods using large patient samples in random controlled trials. Advocates that champion EBM in the corporate world say that like EBP, EBM can lead to better decision making and continuous improvement.

The practice of EBM in the organization involves three principles:

- **Confront the hard facts and hear the truth.** Encourage people to tell the truth and act on those facts, even if unpleasant.

- **Commit to fact-based decision making.** Put aside beliefs, ideologies, and conventional wisdom in search of seeking, facing, and acting on the facts. Identify the best evidence and make a commitment to use that evidence to guide actions.

- **Embrace an attitude of wisdom.** Act on what is known and use the results of action to learn new things and update future actions.

With so many companies still engaging in the conventional, management-as-usual approach in spite of the competitive pressures of the contemporary environment, the need for EBM in the corporate environment has never been greater. Yet despite the large number of articles devoted to EBM and the mounting evidence that EBM principles are sound, there is still a lack of sufficient evidence on which to base managerial changes. Managers require stronger evidence that demonstrates the value of EBM in improving organizational performance. Researchers maintain that this evidence can come from more extensive and rigorous empirical research that explores EBM’s effect on organizational performance.

Although the current evidence base for EBM is weak, this may potentially change in the future. As managers become more aware of the power of the evidence, they are likely to demand stronger evidence to make a business case for change. This means that researchers, management consultants, and the literature will all need to provide stronger evidence for their claims, which may result in a much more powerful evidence base overall.
Business Options & Best Practices

The practice of EBM focuses on assimilating the best available fact-based evidence into organizational practices and decision making. Using EBM principles, managers move away from making professional decisions based on hearsay or personal preferences, or by following the way it's always been done. EBM-based decisions are well-informed, less arbitrary, and more reflective.

EBM is not a new business trend that is just gaining popularity. Chester Barnard’s 1938 book *Functions of the Executive* advocated for the development of a natural science of organization to better understand the unanticipated problems associated with authority and consent. An article by Peter Drucker in a 1955 issue of *Management Science* described the application of systematic methodology to the job of managing the business enterprise. Yet in the years since these publications were released, researchers say that in the business world, management is still struggling to connect science and practice.

Already Practiced In Medicine and Increasingly Used In Education

The use of evidence-based practice (EBP) (also referred to as evidence-based learning) in medicine, considered the first domain to adopt such practices, is a success story. Since the early 1990s, the medical community has championed EBP, integrating individual clinical expertise with the best external evidence. Ideally, this evidence is gathered from rigorous methods using large patient samples based on random controlled trials.

In the medical community, EBP involves complex and conscientious decision making, which must take into account not only the best available evidence but also patient characteristics, situations, and preferences. EBP recognizes that care is individualized and dynamic, involving uncertainties and probabilities.

Studies suggest that physicians trained in EBP techniques are better informed than their peers even 15 years after graduating from medical school. The EBP knowledge that medical personnel acquire during their initial education is augmented by their subsequent experience as practitioners and periodically refreshed through knowledge transfer efforts that convey the latest research evidence.

EBP is also increasingly being used in education. Many secondary schools have restored the practice of social promotion, where students are advanced to the next grade level even if after several tries they have difficulty passing their courses. Research indicates the benefits of promoting the student outweigh its costs: Attaining a high school diploma increases the likelihood of students finding employment and lowers their chances of using drugs, even among those who wouldn’t otherwise have qualified for that diploma.

Management-as-Usual Still the Norm

In the business world, the practice of management-as-usual survives, despite, researchers say, being increasingly out of step with organizational needs in the twenty-first century. Instead of a scientific understanding of human behavior and organizations, managers, including those with MBAs, continue to rely largely on personal experience, to the exclusion of more systematic knowledge. To make decisions, they act on various criteria: Ideology, belief, casual benchmarking, what they hope for or what they or others have done in the past, or even what they think they are good or experienced at doing. In short, researchers say, they are relying on everything except the facts.

Failure to evolve toward EBM, however, can be costly. For example, a customer relationship management software firm repeatedly botched numerous acquisitions, in one instance acquiring an industrial sales training company and driving its revenues from about
$75 million to $10 million in less than five years. A company executive admitted that all of their acquisitions had failed, further noting that an internal study indicated that “cultural conflicts” were the cause in every case.

With no EBM principles to guide it, the company repeated the same mistake again and again, seemingly learning little or nothing from each one. Had the company reviewed what went right and wrong with each acquisition and had it known and acted on the facts concerning the success rate of mergers—about 70 percent fail—and under what circumstances mergers work best, it may have adjusted its business practices, avoiding the costly mistakes.

**Obstacles to Implementing**

Researchers point to several factors that explain why managers may not embrace or practice EBM:

- **Unaware of the evidence.** Although there is a wealth of research that explores decision making, business strategies, and other elements that relate to the use of EBM in organizational practices, few managers access this type of information. According to a 2002 study, less than one percent of human resources managers read the academic literature regularly.

- **Resistance to change.** Managers may feel that following EBM principles will prevent them from running the organization the way they choose.

- **Difficulty in sorting through an ever-increasing amount of information.** The advice promoted by the vast array of business books, articles, and consultants is inconsistent and potentially flawed. Distinguishing between good advice and bad advice is difficult; managers may unwittingly implement flawed business practices.

- **Management is not a profession.** Unlike the field of medicine, managers may have limited understanding of the scientific method and no access to a body of shared knowledge. They are not typically trained to understand or know how to use scientific evidence, a situation that forces them to base their decisions on experience or hearsay.

- **Management training itself is not evidence based.** Business schools tend to focus on imparting general skills, such as team building and conflict management, and case studies that prepare students for life on the job but which don’t study the research evidence in the course of making decisions. Few business students realize that after graduation, their acquired knowledge may be surpassed over time by new findings.

Part of the problem in adopting EBM principles may also stem from the complexity of the workplace itself. Managers need to know how to effectively use evidence to meet their ongoing and daily challenges, but these challenges are far more complex than just knowing the evidence itself and, with multifaceted workplace issues, often cannot be considered in isolation.

**Establishing a Culture of Evidence-Based Management**

The practice of EBM involves developing the right cultural mindset—one that embraces learning, encourages inquiry, and tolerates failure. However, in most real-world organizations, the notion of letting people try new things that may or may not work is seldom permitted.

Building in structured time for reflection and encouraging after-event reviews is also critical. Companies that fail to examine what went right and wrong after a project ends are likely to end
up repeating the same mistakes. And if a culture of blame exists, people may be reluctant to place their careers on the line by admitting the flaws in a project. Without the truth, opportunities for improvement are lost.

The table above contrasts typical business-as-usual management practices for generating, evaluating and applying information with those based on EBM. Organizations that practice EBM typically adopt the following principles:

- **Confront the hard facts and hear the truth.** They work on building a culture in which people are encouraged to tell the truth and act on those facts, even if unpleasant. Delivering the bad news is difficult because unlike good news, which doesn't require any decisions or action, bad news creates a need to do something to fix the problem.

- **Commit to fact-based decision making.** They gather the facts and information required to make informed and smarter decisions and use the best evidence to subsequently guide their actions. For example, one company is so committed to making decisions based on data that whenever an important measure relevant to its operations is not yet available, it includes the measure on its management reports anyway with the notation “not available.” Publishing their reports with a measure marked “not available” reminds people to work on making important information available so it can be used in decision making.

- **Adopt an attitude of wisdom.** The use of “enlightened trial-and-error” enables them to act on what they know, while continuing to reflect on the results of their actions—determining what did and didn’t work—to learn new things and update future actions. This type of feedback loop helps to ensure that the process is working.

### EBM in Action

Some research points to signs that when companies move beyond conventional wisdom and embrace EBM principles, they can translate evidence into practices that solve organizational problems, which in turn helps them compete more effectively in the marketplace.

For example, a car rental company with 2005 revenues of around $8 billion bases its strategy on delivering outstanding customer service. In a survey to its customers to measure this service, it initially experimented with a number of different questions,
including “How likely would you be to recommend us to a friend?” The company settled on evaluating one element rated on a five-point scale: “How satisfied were you with your last rental experience?” When tallying the results, the company counted only the percentage of customers who responded that they are completely satisfied—that is, they rated the service a five on a five-point scale.

The company’s evidence shows that customers who gave that rating are three times more likely to rent from them again. The company has also hired an outside vendor to select randomly and survey about 25 to 30 of its customers from each branch each month—about 150,000 surveys monthly.

Committing to EBM principles—gathering quantitative performance measures and acting on the results—has allowed this company to drive up its average customer satisfaction and its revenues and also to drive down the variation in responses. The company focuses on variation in performance because it believes that it is only as good as its weakest link.

More Research Needed to Build an EBM Movement

With so many companies continuing to follow the management-as-usual approach in spite of the competitive pressures of the contemporary environment, the need for EBM in the corporate environment has never been greater. Yet despite the large number of articles devoted to EBM and the mounting evidence that these principles are sound, sufficient evidence on which to base managerial changes is lacking.

Researchers say it is unreasonable to expect managers to practice EBM in advance of evidence demonstrating its ability to improve organizational performance. Before taking action, managers need more compelling evidence that demonstrates the value of EBM to the organization. Researchers maintain that this evidence can come from stronger and more rigorous empirical research that explores EBM’s effect on organizational performance.

Other factors could help in building an EBM movement, including the following:

• **Use the field of engineering as an EBM model.** With its orientation toward design and problem solving, and emphasis on analyzing facts and theories and turning them into viable products and services, engineering seems ideally suited to play a crucial role in building an EBM movement.

• **Model evidence-based practice in the business school curriculum.** Students need to know that evidence is available and then learn how to apply that evidence. Teaching the principles of cause and effect must be balanced with teaching the solutions to organizational problems.

• **Establish a collaborative relationship among managers, educators, and researchers.** A worldwide, collaborative network might be modeled after the Cochrane Collaboration in medicine or the Campbell Collaboration in criminal justice and education. This type of network, which embodies a community of experts, could summarize state-of-the-art knowledge on important practices and provide ready access to this material.

Although the current evidence base for EBM appears weak, this may potentially change in the future. As managers become more aware of the value of sound evidence, they are likely to demand stronger evidence to make a business case for change. This means that management consultants, the professional literature, and researchers will all need to provide stronger evidence for their claims, which over the long run will result in a more solid evidence base overall.
Despite the challenges, EBM promises a more consistent attainment of organizational goals. If taken seriously, EBM can change how every manager thinks and acts, helping the overall organization to perform better.

**Related Entities**

Academy of Management  
American Psychological Association  
Society for Human Resource Management  
Society for Industrial and Organizational Psychology

**Acronyms**

EBM: Evidence-Based Management  
EBP: Evidence-Based Practice

**References**


