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TALLINNA TEHNIKAÜLIKOOL

TALLINN UNIVERSITY OF TECHNOLOGY



EBMGT -- HELPING MANAGERS MAKE BETTER DECISIONS

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What is Evidence-Based Management?

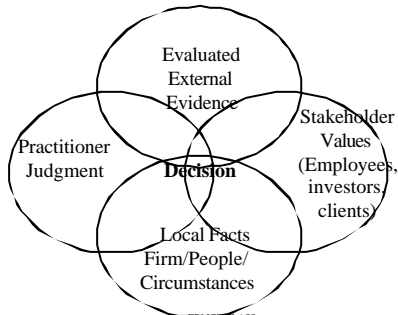
EBMgt is the practice of making organizational decisions that incorporates the conscientious use of both scientific and organizational facts combined with the development of professional expertise and ethical judgment (e.g., implications for stakeholders).

Results of EB practice are improved decision quality through more consistent use of practices that work.

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There are four elements to EBMgt



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EBMgt Features

- ▣ Focus on principles where science is clear
 - ▣ Use to reduce dysfunctional variations in practice
 - ▣ Use to build effective routines and procedures
- ▣ Develop decision awareness as practicing manager
- ▣ Diagnose underlying factors related to decision
 - ▣ Structure and pose a managerial question
 - ▣ Search for best available evidence
 - ▣ Critically appraise information found
 - ▣ Apply relevant case information to decision
 - Little "e" evidence (specific to organization itself)

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Features of EBMgt (cont'd)

- ▣ Contextual use of evidence
 - History of setting
 - Co-occurring factors effecting use
- ▣ Create and use decision supports
 - Checklists
 - Models
 - Follow-up Interviews/Surveys
- ▣ Prepare to access new evidence
 - Becoming part of community of EBMgt practice
 - Targeted reading

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Why EBMgt Matters

- ▣ Results
 - Informed decisions → Better outcomes
- ▣ Information Quality (Fact-Based)
 - Builds on Total Quality Movement of last 30+ years
- ▣ Improved Implementation
 - Better decision follow-through
- ▣ Competence
 - More systematic, valid managerial learning over time
- ▣ Organizational Legitimacy
 - Culture of informed, responsible decision making

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Five Substitutes Managers Use Instead of Best Evidence

1. **Obsolete knowledge from past experience**
-- "We always did it this way"
2. **Capitalizing on personal strengths**
-- "To a hammer everything looks like a nail"
3. **Hype and marketing**
-- The latest fad
4. **Dogma and belief**
Examples: persistence of the "first-mover" advantage, unstructured interviews, employees as "change resisters"
5. **Mindless mimicry of top performing companies**
-- Casual benchmarking and uncritical copying

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**Ways to use EBMgt
Combining Science & Bus Facts**

- Local ("little e" evidence)--Daily tracking of key data for business such as customer waiting times, operating margins—with meaningful denominators (time units, #customers, etc.)
- Customer Satisfaction Surveys – Assessed and analyzed over time with learning as key goal
- Employee Performance Reviews –Use as a basis for staff development, information gathering (auditing concerns and training and career needs) and aggregating to firm-level

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Demand evidence

- ▣ Ensuring that the organization has information to assess its operations ("No brag, just facts")
- ▣ Developing metrics, i.e., important measures to judge performance, including where data aren't currently available
- ▣ Establishing a culture that reinforces speaking the truth about how things are going

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Check the Logic

- ▣ Pay close attention to gaps in logic and inference
- ▣ Unpack the underlying assumptions of company policy or managerial beliefs
- ▣ Avoid being part of the problem...

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WHY IS IT DIFFICULT TO REALLY LEARN FROM EXPERIENCE?

EBMgt

Quotables

- ▣ “Experience is likely to generate confidence more reliably than it generates competence and to stop experimentation too soon.” (James G. March, p. 114)
- ▣ True scientific test avoids narrative fallacy and much of confirmation bias since testers are obliged to take into account the failures as well as the successes of their experiments,
- ▣ Tayeb, p. 72).



James G. March (former CMU Prof):

Ambiguities of Experience

- ▣ Experiences are often ambiguous and the experiences drawn from it unclear.
- ▣ Problems lie partly in the correctable errors of human judgment, but more so in the properties of experience that make it difficult to learn from.

Nassim Taleb--*Black Swan: The Impact of the Highly Improbable*

- ▣ Understanding how to act under conditions of incomplete information is the highest and most urgent human pursuit
- ▣ Information wants to be reduced. The brain cannot see anything in raw form w/o some interpretation. The same condition that makes us simplify pushes us to believe that the world is less random than it actually is.
- ▣ Human interventions plus greater interdependence have increased global uncertainty. Low probability events can have huge consequences (market collapse, pandemics—disease/ computer viruses).

Typical Organizational Environments Make Learning Difficult

- ▣ Limited Information—weak systems, role-focused, political forces (aggregated at top, local or filtered at bottom)
- ▣ Focus of Attention—inherently constrained and scarce (attention restricted to salient features, ignores the uncontrollable or distant factors)
- ▣ Costs of Failure—reduce learning benefits
- ▣ Low Psychological Safety—sense of threat/rigidity
- ▣ Complexity—concurrent adaptation and change
- ▣ Poor Learning Models—don't know how to learn
 - (discount disconfirming evidence)



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Cognitive Biases (Human Habits of Mind) Make Real Learning Difficult Too

- ▣ Confirmatory Bias—believing is seeing
- ▣ Positive Illusions—protective perceptions
- ▣ Interpretive Flexibility—choose easily understood story/account (i.e. simpler, often using default explanations such as “personality” or “communication” problems)
- ▣ Primacy—over-emphasis on early experiences (stop experimentation too soon)
- ▣ Immediacy—focus on proximal events and results (ignore outcomes distant in time and space)

When Does Real Learning From Experience Occur?

- ▣ ????





When Does Real Learning From Experience Occur?

- ▣ Where accurate and complete knowledge of results (feedback) is available
- ▣ Where learner are able to understand and interpret the feedback well
- ▣ WHEN ARE THESE CONDITIONS LIKELY TO BE MET?

When Does Real Learning From Experience Occur?

- ▣ Where accurate and complete knowledge of results (feedback) is available
- ▣ Where people are able to understand and interpret the feedback well
- ▣ WHEN ARE THESE CONDITIONS LIKELY TO BE MET?
 - Specialized domains of frequently exercised capabilities (technical subjects, accounting > investment banking, cardiac ICUs > combined medical/surgical units)
 - Highly competent people who are aware of what they don't know

Why the unskilled are unaware: Further explorations of (absent) self-insight among the incompetent

- ▣ *Joyce Ehrlinger, Kerri Johnson, Matthew Banner, David Dunning, Justin Kruger. **Organizational Behavior and Human Decision Processes**. New York: Jan 2008. Vol. 105, Iss. 1; pg. 98*
- ▣ **Abstract (Summary)** People are typically overly optimistic when evaluating the quality of their performance on social and intellectual tasks. In particular, poor performers grossly overestimate their performances because their incompetence deprives them of the skills needed to recognize their deficits. Five studies demonstrated that poor performers lack insight into their shortcomings even in real world settings and when given incentives to be accurate. An additional meta-analysis showed that it was lack of insight into their own errors (and not mistaken assessments of their peers) that led to overly optimistic estimates among poor performers. Along the way, these studies ruled out recent alternative accounts that have been proposed to explain why poor performers hold such positive impressions of their performance. [PUBLICATION ABSTRACT]
