Data Driven decision and evidence based management (EBM)

1st Wave of Knowledge (1950s–1980s, continuing into 1990s)

Timeframe:

- Started in the 1950s–1960s.
- Continued strongly in the 1970s–1980s.
- Still present even after the 2nd wave appeared in the 1990s

Core Ideas

- Knowledge comes from individuals → focus on the creative, motivated person.
- Key themes:
  - Personal motivation & creativity (knowledge starts with individuals' ideas).
  - Individual excellence & involvement (employees as sources of innovation).
  - Knowledge organizations built around the "creative individual."

THE SECI MODEL https://www.youtube.com/watch?v=Rr02SdqmY2A

By Nonaka

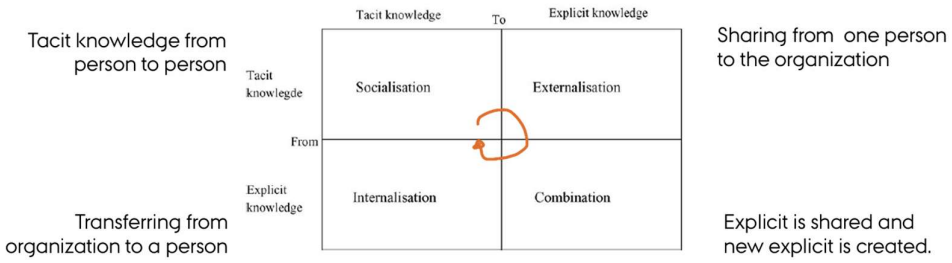


Fig. 1. Knowledge processes.

KNOWLEDGE APPROACH IN WAVE 1

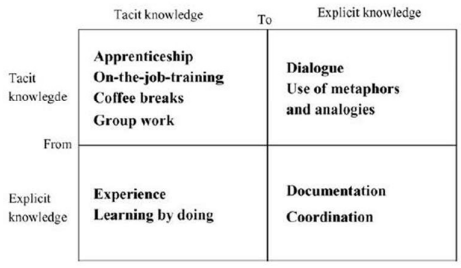


Fig. 2. Knowledge management techniques.

Practical Outcome

- Companies thought: "If knowledge is created by individuals, let's force them to share it."
- This led to the invention of:
  - Big open-plan offices → so people exchange ideas more easily.
  - Knowledge-sharing programs, communities of practice, workshops, etc.

Knowledge Management in Wave 2

Definition: Managing knowledge like any other key resource

Knowledge = inside the organization

Concerns:

- Composition → What knowledge does the firm have?
- Application → How is it used to create value?
- Development → How to expand/improve it?
- Distribution → How to share it across the company?
- Securing → How to protect it from loss/leakage?

Knowledge as a Resource

- Knowledge resources are valuable only if they help the company do something (create value, competitive advantage).
- They are organization-wide, not tied to one person.
- Includes:
    - Internal creation (R&D, internal projects).
    - External acquisition (partnerships, hiring, licensing, networks).
    - Networks (alliances, ecosystems).

Certainty & Control

- In Wave 2, managers tried to measure and control knowledge like they do with money, staff, or equipment.
- Example tools:
    - Knowledge audits
    - Knowledge databases / intranets
    - BI dashboards and reporting systems
- Formula idea:
    - Value = f(∑ knowledge resources)
    - (Value is a function of the sum of knowledge resources).

1st Wave → Individuals' tacit knowledge & expertise = **experiential evidence in EBM**.

2nd Wave → Knowledge as organizational resource = **organizational evidence in EBM**.

3rd Wave Evidence Based Management

EBM = making better decisions by using the best evidence available.

What Is Evidence-Based Management?

Evidence-Based Management Is . . .	Evidence-Based Management Is Not . . .
● Something managers and practitioners do	● Something management scholars do
● Something practitioners already do to some extent	● A brand-new way of making decisions
● About the practice of management	● About conducting particular types of academic research
● A family of related approaches to decision making	● A single decision-making method
● A way of thinking about how to make decisions	● A rigid, one-size-fits-all decision-making formula
● About using different types of information	● About privileging evidence from academic research
● About using a wide range of different kinds of research evidence depending on the problem	● About using only certain types of research evidence irrespective of the problem
● Practitioners using research evidence as just one of several sources of information	● Scholars or research evidence telling practitioners what they should do
● A means of getting existing management research out to practitioners	● About conducting research only about management practices
● Likely to help both the process and outcome of practitioner decision making	● The solution to all management problems
● About questioning ideas such as "best practice"	● About identifying and promoting "best practice"

Evidence-based management 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 favourable outcome.

Four Elements of EBM

Scientific evidence – empirical studies, academic literature.

Organizational evidence – internal data, KPIs, BI systems, reports.

Practitioners – managers' professional judgment, practical know-how.

Stakeholder evidence – values and concerns of people affected by decisions.

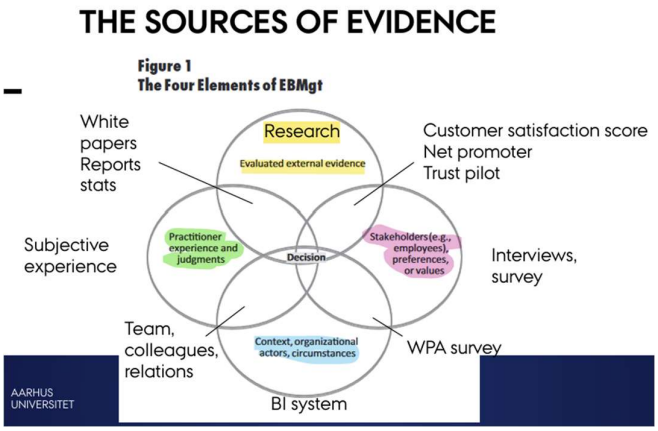
Practitioners: The professional experience and judgement of practitioners.

The scientific literature: Findings from empirical studies published in academic journals.

The organization: Data, facts and figures gathered from the organization.

Stakeholders: The values and concerns of people who may be affected by the decision.

For the four elements there are endless types of sources



A source of evidence is basically where you get information from to support a decision in Evidence-Based Management (EBM).

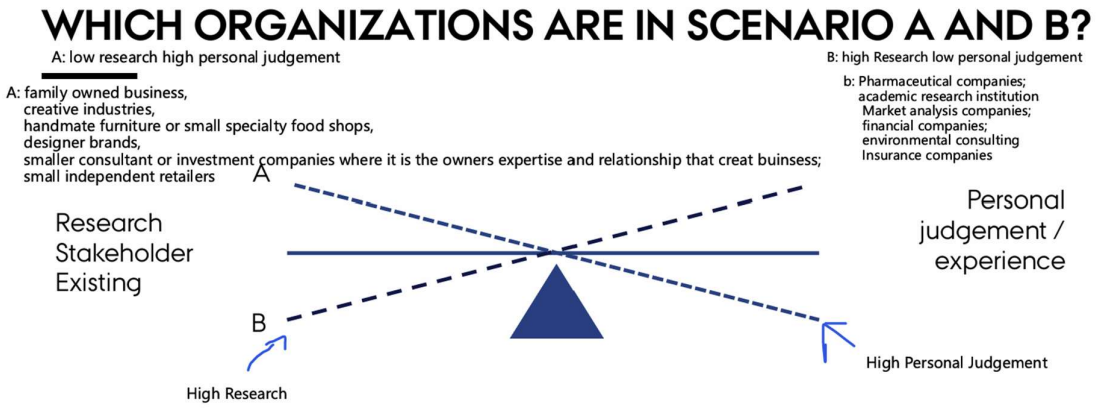
Types of Sources of Evidence

1. Research Evidence
    - Scientific studies, academic journals, white papers.
    - Example: A study showing remote work improves productivity.
2. Stakeholder Evidence
    - produced (typically) through interview, survey, or observational studies
    - asking relevant stakeholders directly about the decision problem uniquely produced for the decision problem at hand.
    - Standardized due to platform developments
    - Example: Employees want flexibility; some clients want in-office meetings.
3. Internal Evidence
    - Comes from within the organization.
    - Purpose: Use internal data to understand the company's situation.
    - Examples:
        - Sales and turnover records
        - Customer databases, CRM, scanner data
        - Benchmarking or management databases
        - Employee surveys, employee satisfaction data
        - Market analyses
        - Production data
    - Why useful:
        - Provides direct insight into your organization's performance.
        - Helps tailor decisions to your company's specific context.

4. External Evidence
    - Comes from outside the organization.
    - Purpose: Gain knowledge from the wider environment, trends, or public information.
    - Examples:
        - Financial information, monitoring data, public opinion surveys.
        - Reports from consultants, industry blogs, YouTube insights.
        - Official statistics and datasets:
            - Danish sources: Energistyrelsen, Statistikbanken, Danmarks Statistik, Nationalbanken, Dansk Industri
        - International: OECD, EU, IMF, UN
        - News sources: Financial Times, Newsweek
    - Why useful:
        - Rapid and convenient knowledge inflow.
        - Helps organizations see trends and learn from outside.
        - Technological progress (search engines, AI like ChatGPT) makes access easier.
5. Business/Management Literatur

6. Professional Judgement Experience/ Personal Experience
    - Definition: Knowledge and experience of decision-makers.
    - Purpose: Adds practical insight that data or research alone cannot provide.
    - Example: A manager knows which team members handle remote work well based on past experience

Example of companies in which



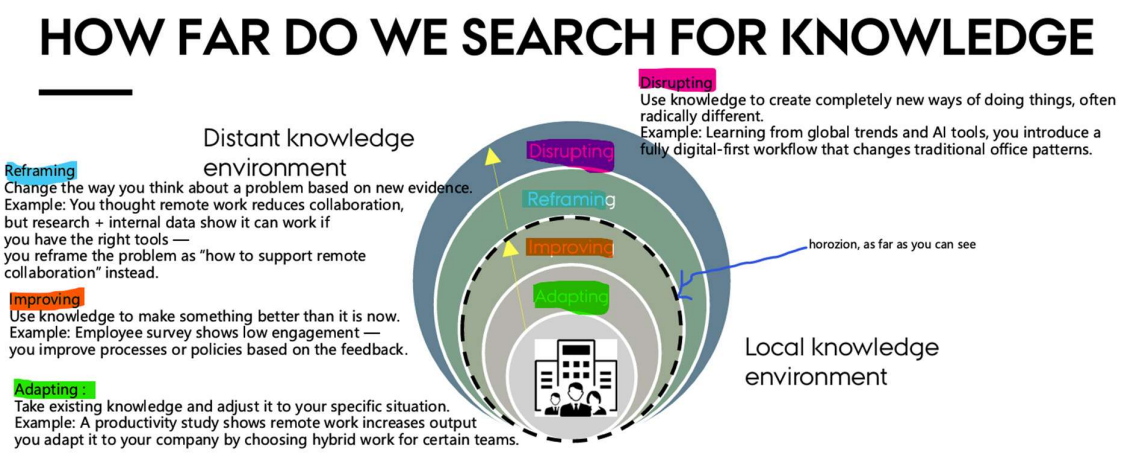
How to Assess a Source of Evidence

When you look at a source, ask:

1. Source: Where is this info coming from? (reliable, expert, official?)
2. Claim: What does it say, and is it relevant to your question?
3. Method: How was it collected? (survey, experiment, observation, database?)

Goal: Make sure the source is trustworthy, valid, and relevant before using it in decision-making.

How far do we search for knowledge



1 Local Knowledge Environment

- Definition: Knowledge that is close to your organization or familiar to you.
- Examples:
  - Internal company data (sales, CRM, HR dashboards)
  - Your team's past experiences or manager expertise
  - Existing processes and routines
- Pros:
  - Easy to access
  - Relevant to your immediate context
- Cons:
  - May limit innovation
  - Can trap you in the "familiarity trap" (only see what you already know)

2 Distant Knowledge Environment

- Definition: Knowledge from outside your organization or from unfamiliar sources.
- Examples:
  - Academic research or scientific studies
  - Industry trends, competitors, consultants
  - Public statistics (OECD, EU, IMF) or technological innovations
- Pros:
  - Brings new ideas and innovative solutions
  - Helps avoid local biases
- Cons:
  - Can be overwhelming
  - Might require effort to adapt to your context

Goal in EBM

- Combine local and distant knowledge to make the best-informed decision.
- Avoid learning traps:
  1. Familiarity trap: Relying too much on known/internal knowledge.
  2. Maturity trap: Sticking to old, established solutions.
  3. Propinquity trap: Searching only near existing solutions instead of exploring new ones.

Learning Traps in Evidence-Based Management (EBM)

1. **Familiarity Trap**
   - Idea: People often only use knowledge or methods they are already familiar with.
   - Problem: This limits creativity and stops you from discovering new solutions.
   - Example:
     - A manager always uses the same marketing strategy because it worked before.
     - Even if a new approach could get better results, they ignore it.
   - Tip to avoid: Try new ideas, even if old ones worked before.
2. **Maturity Trap**
   - Idea: Mature technologies or methods seem safe and legitimate.
   - Problem: Organizations stick with them even when better options exist, because they trust what's familiar.
   - Example:
     - A company keeps using old software because it's "tried and tested," even though faster, cheaper alternatives exist.
   - Tip to avoid: Check if old methods are still the best choice, don't just rely on past success.
3. **Propinquity Trap**
   - Idea: When searching for solutions, people only look near existing solutions or knowledge they already have.
   - Problem: Limits originality; you might miss better or pioneering solutions.
   - Example:
     - A company only studies local competitors for ideas, ignoring innovative solutions from other countries or industries.
   - Tip to avoid: Look far and wide for new ideas — not just nearby or familiar sources.

Familiarity Trap: Stuck in the known → don't explore.
Maturity Trap: Stuck on the old and trusted → don't check for better.
Propinquity Trap: Stuck in the neighborhood → don't look further.

LEARNING TRAPS AND KNOWLEDGE TYPES

	Practitioners	Research	Organizational	Stakeholders
Familarity trap	High	Low	High	Low
Maturity trap	Low	Low	High	High
Propinquity trap	High	High	Low	Low

Measurement: present/absent; scaling 1-5 or usage % into decision-making

Barriers to Evidence-Based Management (EBM) in Organizations

Knowledge Does Not Exist

- Problem: Some organizations think there is no useful knowledge available for their situation.
- Why it happens: They believe their business is too unique for existing research or data to apply.
- Effect: Managers ignore scientific studies, best practices, or external data.
- Example: “Our company is so different, studies on other companies won’t help us.”

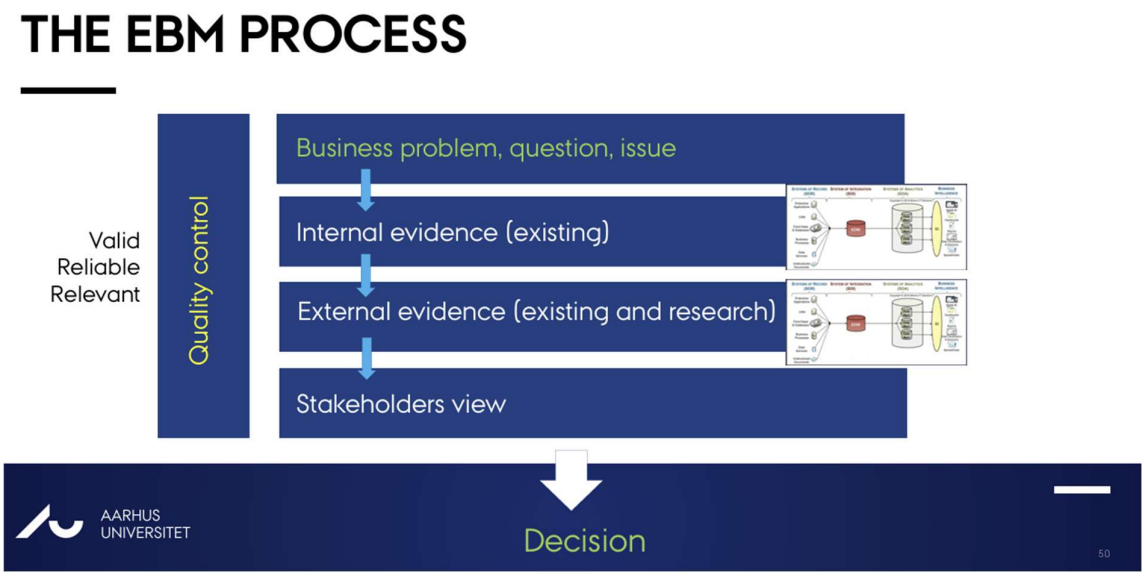
Knowledge Blocks Managerial Freedom

- Problem: Managers feel threatened by evidence-based decision-making.
- Why it happens: Using evidence may limit personal discretion or decision freedom.
- Effect: Managers avoid EBM to maintain control over their decisions.
- Example: “I want to make decisions based on my experience, not what the reports say.”

EBM Competences Are Not a Generic Trait

- Problem: Many managers lack the skills to produce, analyze, or interpret knowledge.
- Why it happens:
    - Management is not a standardized profession.
    - Managers may not understand research methods or data analysis.
- Effect: EBM is difficult to practice because managers can’t evaluate evidence properly.
- Example: A manager struggles to judge whether a study or report is trustworthy.

Analyzing EBM



Think of EBM as a structured decision-making system. It brings together: evidence, analysis, knowledge management, learning, and application.

1. Start with the Problem
    - Business problem / question / issue → what decision do you need to make?
    - Example: “Should we implement remote work permanently?”
2. Gather Evidence
    - Use multiple sources for a full picture:
        - Research Evidence – scientific studies, industry reports
        - Organizational/Internal Evidence – internal data, dashboards, employee surveys
        - Practitioner Experience – managers’ or employees’ knowledge and judgment
        - Stakeholder Evidence – feedback from employees, clients, partners
    - Tip: Consider local (internal) vs. distant (external) knowledge to avoid learning traps (familiarity, maturity, propinquity).
3. Evaluate Evidence Quality
        - Check if evidence is:
            - Valid, reliable, relevant
            - Collected using trustworthy methods
            - Free from bias or inconsistencies
4. Analyze Evidence Using CIMO
    - C– Context: Where/when does the problem occur?
    - I – Intervention: What actions are being considered?
    - M – Mechanism: What drives the outcome?

- O – Outcome: What results do you expect?

Example:			
C	I	M	O
Software team remote work	Leadership style	Communication & motivation	Team productivity & project delivery

5. Apply Evidence
   - Integrate all evidence types into decision-making.
   - Use practitioner judgment to:
     - Adapt existing knowledge
     - Improve current processes
     - Reframe the problem
     - Disrupt for innovation
6. Assess Outcomes
   - Check if the decision achieved its goals.
   - Learn from results to improve future decisions.
   - Update internal knowledge bases (organizational learning).
7. Consider Barriers
   - Knowledge may not exist or be ignored
   - Managers may resist evidence-based decisions
   - Lack of EBM competence or methodological understanding

   Learning traps can also limit effectiveness:
   - Familiarity trap – stick to known solutions
   - Maturity trap – rely on old, trusted methods
   - Propinquity trap – search too narrowly

EBM is not just collecting data — it's a continuous loop of gathering evidence, analyzing, applying, learning, and improving decisions while avoiding traps and barriers.

Practical Example

Data Collextion first

- survey: asking for decision making usage % across differen types of sources - requires that person make the diecision in questions
- interviews: collecting knowledge on sources for various decision individually
- Observation: looking at BI system for sources and documentation on process etc- requires solid documentation, data management and meta data management

- Interview= open question on sources -> can you give examples of internal data you rely on for your decision making? Do you collect data from stakeholders?
- Questionnaire = list of question on a scale

DATA OUTPUT

Table 1: Senior management's use of evidence for decision-making

*Scale: 1 = not applying; 2 = Occasional applying; 3 = Frequently applying; 4 = Regularly applying; 5 = Always applying

Type of evidence	Finance	HR	Intelligence	Production	Sales	CEO
Research	2	1	4	3	1	1
Stakeholder	1	3	4	2	5	2
Organization	5	3	4	5	3	2
Practitioners	3	5	4	4	5	5

Question 1 (20%)

Based on the above table, please make an assessment of the evidence-based profile of the senior management team of the company. Please elaborate and present arguments for your answer.

Before answering the question understanding the table:

The table shows how senior managers in different departments use different types of evidence on a 1–5

Understanding the Four Evidence Types

Before we analyze the table, it's important to clarify what the four types of evidence represent in Evidence-Based Management (EBM):

1. Research Evidence – Scientific or academic studies, industry reports, and empirical data.
    - Purpose: Provide external, validated knowledge that can inform decisions objectively.
    - Example: Studies showing remote work increases productivity.
2. Stakeholder Evidence – Feedback and opinions from people affected by decisions.
    - Purpose: Ensure decisions reflect needs, values, and concerns of employees, clients, or partners.
    - Example: Employees want flexible work schedules; clients prefer in-person meetings.
3. Organizational Evidence – Internal data and metrics collected within the company.
    - Purpose: Provides objective, context-specific insights about company performance.
    - Example: Sales records, production KPIs, employee satisfaction surveys.
4. Practitioner Evidence – Experience and judgment of managers and employees.
    - Purpose: Leverages practical knowledge from people who understand daily operations.

So the table shows how senior management across different departments like Finance, Ceo etc. use the type of evidence to for decision making

Solution:

First Calculate the means of the means

Type of evidence	Finance	HR	Intelligence	Production	Sales	CEO	mean
Research	2	1	4	3	1	1	2
Stakeholder	1	3	4	2	5	2	2,83
Organization	5	3	4	5	3	2	3,66
Practitioners	3	5	4	4	5	5	4,33
mean	2,75	3	4	3,5	3,5	2,5	3,21

*Scale: 1 = not applying; 2 = Occasional applying; 3 = Frequently applying; 4 = Regularly applying; 5 = Always applying

Observation from the Table:

Research Evidence

- Generally underused, especially by CEO (1), HR (1), Finance (2), and Sales (1).
- Intelligence (4) and Production (3) show better use.
- Implication: Most departments rely on experience or internal data rather than validated research.
- Recommendation: Departments like Finance, HR, and CEO should increase research integration to reduce bias and improve informed decisions.

Stakeholder Evidence

- High in Sales (5) and Intelligence (4), moderate in HR (3), low in Finance (1), Production (2), CEO (2).
- Implication: Decisions in some areas ignore important perspectives from employees, clients, or partners.
- Recommendation: HR, Finance, Production, and CEO should actively seek stakeholder input, as it aligns decisions with real needs.

Organizational Evidence

- Strong in Finance (5), Production (5), Intelligence (4), moderate in HR (3) and Sales (3), lower in CEO (2).
- Implication: Most departments base decisions on internal data, which is positive. CEO underuses internal data, risking less informed decisions.
- Recommendation: CEO and Sales could leverage more organizational metrics to complement experience and stakeholder insights.

Practitioner Evidence

- High across all departments, especially CEO (5), HR (5), Sales (5), Production (4–5), Intelligence (4).
- Implication: Decisions rely heavily on experience and judgment, providing context but also introducing subjectivity.
- Recommendation: Maintain practitioner input but balance with research and stakeholder evidence for full evidence-based decisions.

Department-Focused Summary

- Finance: Strong on organizational evidence, weak on research and stakeholder input. Should integrate external research and stakeholder perspectives.
- HR: Strong practitioner input, moderate organizational and stakeholder use, very low research. Stakeholder input should be higher to reflect employees' needs.
- Intelligence: Balanced use of all evidence types; model example of EBM.
- Production: Strong organizational and practitioner use, weak stakeholder and moderate research. Should consider stakeholder feedback and more research.
- Sales: Strong practitioner and stakeholder use, weak research and moderate internal data. Should increase research and organizational data use.
- CEO: Very high reliance on practitioner evidence, weak across research, stakeholders, and internal data. CEO should integrate all evidence types to support strategic decisions.

Overall Assessment

- Strengths: Practitioner and organizational evidence are widely used; some departments (Intelligence, Production) show good integration.
- Weaknesses: Research and stakeholder evidence are inconsistently applied, particularly at the CEO level and in Finance, HR, and Production.
- Recommendation: Senior management should adopt a more balanced evidence-based approach, systematically combining research, organizational data, practitioner judgment, and stakeholder perspectives to improve decision quality and reduce bias.

Detailed EBM Analysis Guide

1 Evidence Types and Interpretation

Evidence Type	Low (1–2)	Medium (3)	High (4–5)	General Implications / Conclusions
Research Evidence	Rarely or never uses scientific studies, industry reports, or academic research.	Uses research occasionally or inconsistently; some decisions are evidence-informed.	Frequently uses research and external studies systematically.	**Low:** Decisions may be biased, based on intuition, or not scientifically supported. **Medium:** Some decisions are supported by research, but gaps exist and some decisions remain intuition-based. **High:** Decisions are well-supported by empirical evidence, increasing credibility, reducing risks, and improving organizational learning.
Stakeholder Evidence	Ignores input from employees, customers, partners, or other affected parties.	Considers stakeholders sometimes but not systematically.	Actively integrates stakeholder feedback and concerns into decisions.	**Low:** Decisions may not reflect real needs or expectations; risk of dissatisfaction or resistance. **Medium:** Some stakeholder needs are considered, but decisions may miss important perspectives. **High:** Decisions are inclusive, aligned with stakeholder expectations, and more likely to be accepted and effective.
Organizational / Internal Evidence	Rarely uses internal company data, KPIs, dashboards, or operational metrics.	Uses internal data sometimes or partially; not systematic.	Frequently uses internal metrics, dashboards, and company performance data.	**Low:** Decisions may be disconnected from factual company performance; assumptions dominate. **Medium:** Some decisions informed by internal data; partial fact-based decision-making. **High:** Decisions are grounded in the organization's actual performance, improving accuracy, efficiency, and accountability.
Practitioner / Experience Evidence	Rarely relies on professional judgment or experience.	Uses practitioner knowledge sometimes.	Frequently relies on professional or expert judgment and experience.	**Low:** Decisions may lack practical insight; risk of repeating past mistakes is high. **Medium:** Some experience applied; decisions partially informed by context. **High:** Decisions are informed by experience, providing contextual understanding and operational insight; however, high reliance may introduce bias if not balanced with other evidence.

2 General Observations / Patterns

- **Balanced use of all evidence types** → Strong evidence-based decision-making; high reliability and credibility.
- **Over-reliance on one type of evidence** → Can create bias or gaps:
  - Practitioner-only → context-aware but potentially subjective.
  - Internal data-only → factual but may ignore external trends or stakeholder needs.
  - Research-only → academically solid but may miss practical feasibility or stakeholder context.
- **Low use across all evidence types** → Decisions are mostly intuition-based, reactive, or risky.
- **Medium use** → Some evidence considered, but decisions are not systematically evidence-based.
- **High use across evidence types** → Indicates strong EBM practices: decisions integrate empirical research, internal metrics, stakeholder perspectives, and professional judgment.

3 Quick Exam Framework / How to Use the Table

1. **Step 1 – Identify Evidence Levels:**
   - Check the table or survey scores for each evidence type.
   - Classify them as Low (1–2), Medium (3), or High (4–5).
2. **Step 2 – Analyze Implications:**
   - Use the "General Implications" column to explain what low, medium, or high evidence use means for decisions.
3. **Step 3 – Identify Strengths and Weaknesses:**
   - Strengths → high scores in one or more evidence types.
   - Weaknesses → low scores, especially if consistent across critical decision-makers.
4. **Step 4 – Make Recommendations (Optional but Strong in Exams):**
   - Low research → "Integrate more empirical studies to support decisions."
   - Low stakeholder evidence → "Engage stakeholders systematically to improve acceptance and effectiveness."
   - Low internal data → "Use dashboards, KPIs, and operational data more consistently."
5. **Step 5 – Write General Conclusion:**
   - Example:

     > "The organization demonstrates moderate evidence-based decision-making. Practitioner and internal data evidence are strong, supporting context-aware and data-informed decisions. However, research and stakeholder evidence are inconsistently applied, creating gaps and potential biases. To strengthen EBM practices, the organization should systematically integrate all types of evidence in decision-making."

ANALYSIS

Question 2

The level and type of evidence used in decision-making illustrates the search scope applied by an organization. Based on table 1, please discuss whether the senior management team is in risk of falling into any knowledge traps. Please elaborate and present arguments for your answer.

Based on Table 1, the senior management team is at risk of a **familiarity trap** because research and stakeholder evidence are underutilized while practitioner experience and internal data are heavily relied upon. This indicates that decision-makers focus on familiar knowledge, which may limit innovative solutions and alternative approaches. To mitigate this trap, the organization should introduce systematic research reviews and external benchmarking, encourage teams to explore ideas outside their routine knowledge, and rotate decision-making responsibilities to diversify perspectives.

Conclusion:

	Practitioners	Research	Organizational	Stakeholders
Familarity trap	High	Low	High	Low
Maturity trap	Low	Low	High	High
Propinquity trap	High	High	Low	Low

Familiarity Trap – Template Answer

- Observation / Evidence:
    - The organization heavily relies on familiar sources of knowledge, such as past experience, internal data, or established practices, while underutilizing new, external, or research-based evidence.

  "Decision-makers rely heavily on internal data, past experience, or established practices, while underutilizing research or external insights."
- Interpretation:
    - By focusing on what is already known, decision-makers may overlook innovative solutions or alternative approaches, limiting learning and improvement.
- Argument:
    - This indicates a familiarity trap, where the organization prefers the comfort of familiar knowledge rather than actively seeking diverse evidence.

  "This indicates a familiarity trap, where decisions may be limited by what is already known and fail to consider innovative alternatives."
- Recommendation:
    - Introduce systematic research review and external benchmarking.
    - Encourage teams to explore new ideas outside their routine knowledge.
    - Rotate decision-making responsibilities to diversify perspectives.

"The organization should actively seek new evidence, external research, and diverse perspectives to avoid biased or limited decision-making."

- Always-usable sentence:
    - Decisions show reliance on familiar knowledge sources, suggesting a familiarity trap. The organization should actively seek new evidence and perspectives to avoid biased or limited decision-making."

Maturity Trap – Template Answer

- Observation / Evidence:
    - The organization prefers well-established methods, technologies, or processes that have proven reliable in the past. New or experimental approaches are rarely considered.

  "The organization prefers well-established methods or technologies and rarely considers experimental or novel solutions."
- Interpretation:
    - This cautious approach may limit innovation and prevent the organization from adapting to new trends or opportunities.
- Argument:
    - This reflects a maturity trap, where the focus on mature, safe knowledge prevents exploration of novel solutions.

  "This demonstrates a maturity trap, where focus on reliable practices may limit innovation and adaptation."
- Recommendation:
    - Pilot new approaches alongside existing methods.
    - Encourage experimentation in controlled environments.
    - Regularly review industry trends and innovations to challenge "safe" assumptions.

  "The organization should balance mature practices with controlled experimentation and review industry trends to foster innovation."
- Always-usable sentence:
    - "The organization tends to favor mature and established knowledge, indicating a maturity trap. It should balance reliable practices with controlled experimentation to foster innovation."

Propinquity Trap – Template Answer

- Observation / Evidence:
    - Decision-makers search for solutions close to existing knowledge or previous solutions rather than exploring distant or innovative options.

  "Decision-makers focus on solutions similar to what has been done before, rather than exploring new or distant options."
- Interpretation:
    - This limits originality and may cause the organization to repeat similar solutions without achieving breakthroughs.
- Argument:
    - This demonstrates a propinquity trap, where the knowledge search is too narrow or confined to the familiar neighborhood of past solutions.

  "This indicates a propinquity trap, where narrow search restricts innovation and creative problem-solving."
- Recommendation:
    - Encourage broader knowledge searches (external research, cross-industry learning).
    - Use brainstorming or cross-functional teams to explore novel approaches.
    - Challenge existing assumptions regularly.

"The organization should broaden knowledge searches, incorporate cross-industry insights, and challenge existing assumptions to generate novel solutions."

- Always-usable sentence:
    - "The organization's search for solutions is narrowly focused on existing practices, indicating a propinquity trap. Expanding the search to include distant or novel knowledge sources would enhance innovation and problem-solving."

Table 3. Average and frequency of evidence sourcing by field.

		Frequency								
	μ (%)	0%	10%	20%	30%	40%	50%	60%	70%	80%	>90%
Evidence											
Research	37.20	6.30	8.00	20.50	15.20	17.00	13.40	6.30	5.40	5.40	2.70
Stakeholder	45.72	4.50	4.50	12.50	16.10	20.50	12.50	14.30	8.90	3.60	2.70
Existing	41.70	4.50	7.10	18.80	11.60	23.20	11.60	14.30	4.50	2.70	1.80

Notes: The table presents the average percentage and frequency of use of evidence sourced from each field. The introductory request of the questions was "Please state how frequently these types of evidence are part of decisions in your organization". Respondents answered on a six-point scale (1=0%, 2=20%, 3=40%, 4=60%, 5=80%, and 6=100%). Sample size: 114 observations.

Analysis of Table 3: Average and frequency of evidence sourcing by field

The table presents the average usage (μ%) and distribution of evidence across three main sources: research, stakeholder, and existing organizational evidence. Overall, the findings suggest that organizations use evidence in decision-making, but in a rather moderate and unbalanced way.

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1. Research evidence (μ = 37.2%)

- Research evidence is the least used type of evidence.
- Most respondents report using research only 20–40% of the time, while very few organizations integrate research at higher levels (>70%).
- This indicates that while some organizations occasionally consider scientific findings, they are not systematically embedding research into their decision-making processes.
- Implication: Decisions risk being guided more by practical judgment or convenience than by validated, external knowledge. This weakens the foundation for truly evidence-based management, since scientific research is often the most credible and reliable form of evidence.

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2. Stakeholder evidence (μ = 45.7%)

- Stakeholder evidence (from employees, clients, partners, or citizens) is the most frequently used source of evidence.
- A considerable proportion of organizations use it 30–60% of the time, with some even at higher levels.
- This shows that organizations value stakeholder perspectives, aligning decisions with employee needs or customer expectations.
- Implication: This is positive, as it increases the likelihood of decisions being relevant and accepted by those affected. However, if overemphasized without balancing other evidence sources, it risks decisions being too short-term or politically motivated, rather than strategically informed.

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3. Existing evidence (μ = 41.7%)

- Existing organizational or external data (sales records, surveys, statistics) is used at a moderate level.
- The distribution shows that many organizations rely on this evidence in the 20–50% range, with some peaks around 40%.
- Very few organizations use existing data above 70%.
- Implication: Internal and external data are accessible and valuable, yet they are still underutilized relative to their potential. Organizations may collect large amounts of data but fail to systematically integrate it into decision-making.

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4. Overall assessment

- Across all three categories, the evidence use is moderate rather than high. Most organizations cluster around the 20–50% usage level, and very few make decisions that are consistently evidence-based above 70%.
- The imbalance between sources is striking: stakeholder perspectives are prioritized, while research is neglected, and existing organizational data is only partly used.
- This reflects a partial evidence-based management approach: organizations value input from people and practical experience but struggle to integrate systematic, external research and available data.

Conclusion

The table shows that evidence is being used, but unevenly and at relatively low levels. Organizations rely most heavily on stakeholder evidence, moderately on internal/existing evidence, and least on research evidence. This imbalance suggests that decision-making may be shaped more by practical concerns and immediate stakeholder pressures than by robust scientific knowledge or comprehensive data analysis. For stronger evidence-based management, organizations would need to increase their systematic use of research evidence and make fuller use of their internal and external data resources, balancing these with practitioner experience and stakeholder views.

Universal Evidence-Based Answer Kit

1. Research Evidence

- **Low**
  - **Observation**: "Research evidence is used at a low level (xx%), making it the weakest evidence source."
  - **Interpretation**: "This indicates little reliance on validated scientific knowledge."
  - **Implication**: "Decisions risk being biased, intuition-driven, and lacking a robust foundation."
  - **Recommendation**: "Integrate more systematic research to strengthen reliability and reduce bias."
- **Medium**
  - **Observation**: "Research evidence is used at a moderate level (xx%)."
  - **Interpretation**: "Some scientific knowledge is applied, but it is not consistent across the organization."
  - **Implication**: "This partial use can create uneven decision quality."
  - **Recommendation**: "Systematize research integration across all departments."
- **High**
  - **Observation**: "Research evidence is strongly used (xx%), one of the most applied categories."
  - **Interpretation**: "Scientific knowledge has a central role in decision-making."
  - **Implication**: "This strengthens validity but could risk rigidity if not balanced with practical inputs."
  - **Recommendation**: "Maintain strong research use, while balancing with stakeholder and practitioner input."

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2. Stakeholder Evidence

- **Low**
  - "Stakeholder input is minimal (xx%)." → "This shows limited engagement with employees, clients, or partners." → "Decisions risk being misaligned with real needs." → "Increase stakeholder consultation for relevance."
- **Medium**
  - "Stakeholder input is moderate (xx%)." → "This indicates some external voices are considered, but not systematically." → "Decisions may partly reflect needs, but gaps remain." → "Establish structured feedback processes."
- **High**
  - "Stakeholder input is very strong (xx%)." → "This highlights strong alignment with external perspectives." → "While relevant, it risks being political or short-term." → "Balance stakeholder influence with research and data."

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3. Organizational Evidence (Internal Data)

- **Low**
  - "Organizational data is weakly used (xx%)." → "Internal metrics are overlooked." → "Missed opportunities for efficiency and insights." → "Strengthen analytics and reporting use."
- **Medium**
  - "Organizational data is moderately applied (xx%)." → "Some metrics are used, but not fully exploited." → "Decisions may lack full factual grounding." → "Expand systematic use of internal reporting."
- **High**

- "Organizational data is strongly applied (xx%)." → "Decisions are well-grounded in internal performance metrics." → "This ensures efficiency but may miss external perspectives." → "Balance with stakeholder and research evidence."

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4. Practitioner Evidence (Experience/Judgment)

- **Low**
  - "Practitioner input is low (xx%)." → "Experiential knowledge is underutilized." → "Risk of overly abstract or detached decision-making." → "Incorporate more practitioner judgment to ground theory in reality."
- **Medium**
  - "Practitioner input is moderate (xx%)." → "Some reliance on expertise exists, but not dominant." → "This creates a balanced but sometimes cautious approach." → "Encourage structured use of expert judgment."
- **High**
  - "Practitioner input is very strong (xx%)." → "Decisions rely heavily on experience." → "This provides context but introduces subjectivity and bias risk." → "Balance experience with research and stakeholder data."

🔹 **Universal Knowledge Trap Kit (same logic)**

1. Familiarity Trap (relying only on what is known)

- **Observation**: "Decisions are based mainly on practitioner experience and internal knowledge."
- **Interpretation**: "This shows a preference for familiar sources over new perspectives."
- **Implication**: "Innovation is blocked, blind spots remain, and groupthink may occur."
- **Recommendation**: "Actively seek unfamiliar research and external evidence."

2. Maturity Trap (using only well-established data, ignoring new evidence)

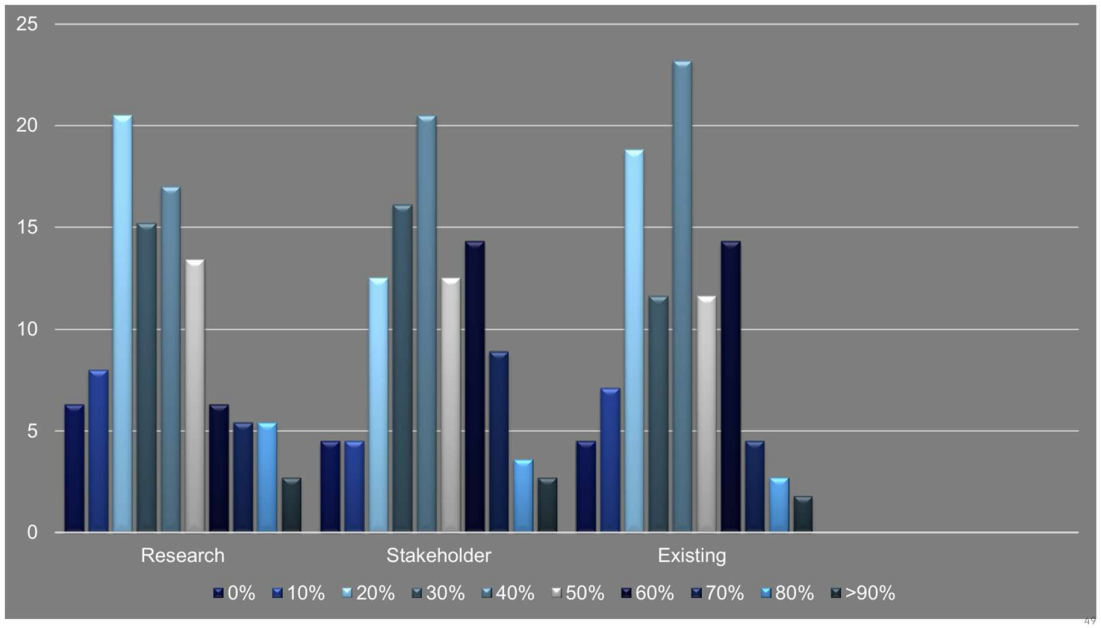
- **Observation**: "Only established, proven data is used, while newer insights are ignored."
- **Interpretation**: "This shows reluctance to adopt emerging research or innovative evidence."
- **Implication**: "Organization risks lagging behind competitors and missing new opportunities."
- **Recommendation**: "Encourage experimentation and integrate new but credible research."

3. Propinquity Trap (relying on easily accessible evidence)

- **Observation**: "Evidence is used mainly because it is readily available (e.g., stakeholder surveys, internal reports)."
- **Interpretation**: "This reflects a bias toward convenience rather than quality."
- **Implication**: "Leads to incomplete or superficial decision-making."
- **Recommendation**: "Expand the search scope and invest in more systematic evidence gathering."

WHAT ABOUT THIS FORMAT?

*Scale: 0 – 100% sourcing of evidence for decision-making



TEMPLATE
Business Intelligence Analysis

PURPOSE/MODEL

Apply Evidence-Based Management (EBM) to support decision-m
Analyze and integrate four evidence types:
Research evidence – empirical studies, scientific data
Stakeholder evidence – feedback, opinions, preferences
Existing evidence – internal data, historical records
Experiential evidence – personal experience, intuition

UNIT

Org, team, or functional unit: Any department, team, or functional group requiring evidence-based decisions

PEOPLE

Org, team, or functional unit: Any department, team, or functional group requiring evidence-based decisions

DATA

Source: Surveys, interviews, observations, document review

Example: Collect feedback on current decision-making practices; review internal reports and databases

ANALYTICS

Source: Surveys, interviews, observations, document review

Example: Collect feedback on current decision-making practices; review internal reports and databases

OUTPUT

EBM profiling

APPLICATION

Status on evidence applied in decision-making:
Example: Survey data partially used for planning.
Example: Analytics rarely feeds into strategic decisions.
Identify gaps:
Evidence missing for key decisions (e.g., customer behavior insights, operational efficiency metrics).

Insights from interviews not incorporated into planning.
Real-time data not yet leveraged.