GETTYIMAGES.COM/BLOOM PRODUCTIONS

In My View...

Profane Knowledge Seeks Easy Executive Decisions

Gregory H. Watson

There is a cartoon that I enjoy which depicts a man presenting his improvement project to his boss. The boss responds, "What I need is a cheap, long-term quick fix!" Although the point is obvious, there is also more than a grain of truth in his comment. W. Edwards Deming proposed that executive decision making (EDM) be based on a "system of profound knowledge," an approach to management based on systems thinking, statistical inquiry, and psychological insights that are founded on a deep knowledge of how to deliver penetrating insights to achieve the "desired state," as well as those actions that are required to stimulate organizational transformation.[1] Deming, however, never described the "current state" that prevails in most organizations. If executives are not making decisions based on profound knowledge, then it is logical that they are relying on profane knowledge, the alternative, which depends on subjective, opinion-based decisions. This article describes why profane knowledge is not an advisable basis for strategic decision making. Ultimately, if the strategic culture of an organization is based on profane knowledge, it is unlikely that a leadership position in a competitive industry can be attained.

What are the Origins of Executive Decision Making?

Executive decision making was first highlighted during the 20th century when several pioneers proposed theories on a new way of thinking regarding how executives should direct enterprises. For instance, Henri Fayol believed that executives must execute a "constant search for improvements that can be introduced into every sphere of activity. The search for improvement should

be pursued unceasingly at all levels and throughout all parts of the business. The executive in charge should have an active and unrelenting intention to effect improvements."[2] With this focus, executives must make decisions to act for the sake of improvement, so that the future performance of the organization becomes stronger over time.

EDM was defined using negative terms by Chester I. Barnard: "The fine art of executive decision consists in not deciding questions that are not now pertinent, in not deciding prematurely, in not making decisions that cannot be made effective, and in not making decisions that others should make."[3] In other words, EDM should focus on what is relevant, imperative, and limited in scope to addressing only essential matters. Peter F. Drucker later summarized Barnard by saying, "The job of the executive is to execute," which means "to get the right things done right."[4] Executives, therefore, decide what must be done and then follow through with a sound plan to accomplish it.

What are the Constraints of Executive Decision Making?

Herbert A. Simon proposed a set of constraints, which he called "bounded rationality," to define the limits of an executive's ability to make effective decisions. He identified three areas of concentration for improving EDM—integrity of the data used for decision making, competence of the decision maker with respect to the content of the decision, and the sense of urgency with which a decision is required. As data continues to expand in volume and becomes more accessible, the urgency of developing meaning that can be derived from it will increase. Data integrity can be improved through technology and statistical methods. This means that the competence of the decision maker probably will become the most critical systemic opportunity for improvement and that profound knowledge must be sought actively to improve decisions.[5]

What is Executive Decision Making?

The concept of EDM evolved from these roots. Most importantly, EDM must be understood as a cognitive process involving management of psychological considerations. It is based on the mental state of a decision maker who must remain flexible. That person must be able to respond effectively to external shifts that are instigated by situational dynamics from sources in the organization's environment. Exceptional performance requires insight into these situations and the ability to make sense out of the various signals they provide, which become inputs to the future potential state of performance that are necessary for fulfilling the organization's evolving purpose, the ultimate goal. Development of exceptional EDM competence requires applying a cross-disciplinary approach to support strategic choices regarding the organization's future direction.

This EDM process must consider all issues raised by a multitude of disciplines that are systematically and inclusively engaged in providing "data streams" to support the decision-making process and potential alternatives. EDM must not be confined to a singular, myopic perspective that is purely technological but must integrate administrative behavior, social psychology, and behavioral economics. Throughout the past half century, new concepts have influenced the psychological conditions that should be incorporated into Deming's system of profound knowledge. Because these ideas were not available during Deming's lifetime, he focused on psychology as the means for motivating and managing the work environment, rather than the decision environment.

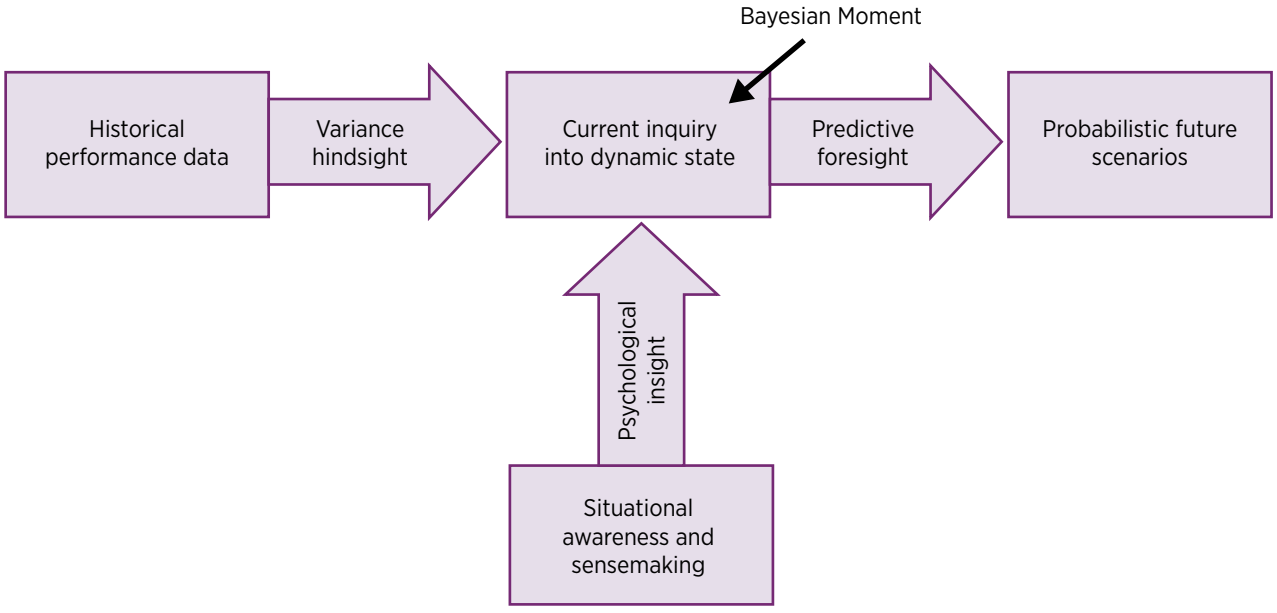
Karl E. Weick described sensemaking, which begins with a developing awareness of emerging situations—the act of noticing shifts in those environmental conditions that will influence the future directions of the firm. Upon noticing a phenomenon, the decision maker's observation must be recognized as an important influencing factor and be recorded for future investigation and inquiry, making it an important part of the EDM process for determining strategic direction.[6] This is a contributor to creating information integrity and delivering sound data.

Dynamic capability, proposed by David J. Teece, represents "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments."[7] Responding to the emerging environments associated with shifting situations requires sensemaking and EDM to guide the response that builds appropriate strategic capabilities, allowing the organization to secure its future in the face of a dynamically shifting external environment filled with social, technical, economic, and political disruptions. This increases managerial decision agility and provides flexibility in the choice of salient decision options.

Daniel Kahneman's pragmatic system of decision making, called behavioral economics, expanded the work of Simon. Kahneman postulated two types of decision making, which he labeled Systems 1 and 2. System 1 is the process of thinking emotionally—what Barnard called "illogical thinking," and System 2 is generated by creating a statistical understanding of the real world, what Barnard called "logical thinking." System 2 logic can be used to establish a "rules-based" approach to bound rationality in a System 1 type of decision.[8]

Decisions are made in a moment during the transition between considering the past and making predictions about the future. This is a time for insight generation which can be called the "Bayesian moment," that is named after Reverend Thomas Bayes, who originated the concept of conditional probability (see Figure 1). The Bayesian moment occurs when historical scientific inquiry is conducted to transform the knowledge of past performance to shape strategic decisions that create the future capabilities of an organization—a future that is capable of withstanding its dynamic environment. EDM decisions that identify and initiate change projects and deliver predicted expectations for future performance generate transformation. EDM, therefore,

Figure 1: Executive Decision Making in the Bayesian Moment



can be defined as "a unilateral decision made by a person who possesses both executive decision rights and the authority to allocate sufficient resources to implement the decision."[9]

How do Profane and Profound Knowledge Apply to EDM?

Deming's theory did not include an operational definition for profound knowledge, which is required to understand how it differs from profane knowledge. Profound knowledge is the insightful knowledge of phenomena that can be characterized with probabilistic interpretation by understanding their associated process performance outcomes. This knowledge is gained objectively by using statistical methods to investigate past performance. The resultant understanding of the real-world process behavior permits future states of performance to be predicted with some probability, following Deming's system of profound knowledge.

On the other hand, profane knowledge is that superficial or ordinary knowledge that is based on intuitive interpretation and understanding of potential process results that were obtained subjectively, which also has been called "Theory Opinion" or "Theory O."[10] Profane knowledge assesses the apparent state of reality by observing and applying common sense to derive a theory of reality that is based on opinions rather than objective data analysis. In its purest form, it represents emotional decisions based on personal mental models that are not supported by analytical methods. Table 1 compares the characteristics of the qualities of profane and profound knowledge.[11] Clearly, when executives base their thinking on profane knowledge, the risk of an incorrect decision increases.

What Decisions are Typically Made by Applying Profane Knowledge?

There is a saying applied to prioritization in decision making—the "squeaky wheel gets the grease," and another adage defines the "golden rule" as "he who has the gold makes the rules!" Both of these represent common-sense EDM. The executive responds to those who apply the most pressure on issues of personal concern, such as salaries, bonuses, and job security. In other words, executives tend to be most sensitive to the needs of the capital markets, stock analysts, owners, and shareholders who judge their performance based on short-term, quarterly performance. These forces have their own common-sense criteria of decision making that influence what an executive should do to create impact, driving decisions that will produce rapid performance change and are relatively easy to implement.

Profane knowledge seeks easy solutions that follow a legacy rulebook that is filled with long-standing, seemingly safe executive improvement decisions that have been passed down as tribal logic. This tradition produces a set of accepted decision alternatives that executives follow almost blindly. Table 2 describes these so-called strategies, using the decision filters of speed of implementation and degree of difficulty.
This set of decisions supports a capitalist's need for rapid financial returns; however, it does not always support workers' human needs for economic safety and long-term security. Executives tend to focus on applying profane knowledge in order to attain profitable knowledge that responds to their most dominant customers—the financially oriented stakeholders who evaluate management performance and hold the executives accountable.

Table 1: Comparison of the Quality Characteristics of Profane and Profound Knowledge

Quality Characteristic	Profane Knowledge	Profound Knowledge
Depth of knowledge	Provides only surface knowledge (naïve understanding)	Develops deep knowledge (enlightenment)
Explicitness of function	Describes manifest functionality of the organization	Describes latent functionality
Discovery mechanism	Determines conclusions through explicit discovery	Determines conclusions through tacit discovery
Systems approach	Sub-optimistic myopia	Holistic, inclusive focus
Predictive function	Bases predictions of future behavior on past behavior and the status quo	Bases predictions of future behavior on the assumption dynamic change will persist
Analytical model	Focuses on averages	Focuses on variation
Human considerations	Does not take human factors into account	Takes human factors into account
Data approach	Uses enumerative data for all executive decisions	Uses analysis of factors as its basis
Propositional agreement	Promotes convergent thinking	Promotes divergent thinking
Methodological validation	Supported by tribal lore and relatively simplistic evaluations	Supported by comprehensive theories and evaluations that relying on robust statistics
Decision criteria	Based on common sense (e.g., System 1 thinking)	Based on uncommon logic (e.g., System 2 thinking)
Decision mindset	Decisions based on subjective reflection and introspection	Decisions based on objective reflection and mindfulness
Speed of decision making	Reactive/rapid decision making	Relies on logical, deliberate decisions

How does Profane EDM Apply the Taylor Perspective of Prosperity?

This decision bias was incorporated into scientific management based on assumptions made by Frederick W. Taylor in his propositions for the founding principles in applying science to management. He premised that organizations should deliver the greatest prosperity for all—both workers who provide the labor resources and for the capitalists who provide the financial resources that enable this economic system. Taylor recommended implementing his "laws for least waste" and then sharing the derived benefits between labor and the capitalist class; however, this was only an ideal. In retrospect; it was not a reality.[12] In Taylor's system, he advocated for paying workers more, but he didn't want them to be overpaid because he believed that would result in wasteful spending that was not beneficial to society or increasing the quality of life for the workers. Taylor's engineered work-improvement practices were classified as "innovations," rather than "inventions" by Joseph A. Schumpeter.[13] Innovation is defined as "creative destruction" of past practices because it requires creating an economic shift by the "planned abandonment" of legacy ways of working.[14] Such transformations require an economic decision—the output of EDM to make a choice, direct resources, and manage an effective transition as executed in the operational environment where work is accomplished.

Although Taylor may not have applied the right economic context for allocating benefits of improvement, his analytical approaches for process improvement were based on accepted scientific principles of situational observation followed by structured analysis of the details for the work methods. Taylor's innovative approach to improvement can create scientifically efficient systems; however, the motivation for improvement is not congruent with the beneficial welfare of society. EDM that follows the profane knowledge approach shares the motivation with Taylor's system, but it lacks the benefit of applying an analytical system to generate its decision rules.

What can be Done to Improve the Quality of EDM?

Deming was concerned about the motivation of executives driving transformation. He commented that his system of profound knowledge was the true core of his contribution and proposed that his 14 points on management be interpreted in the light of this system. Transformational management along with its ability to ascertain the best alternatives is derived from management's capacity for executing sound decisions, and this is only achievable with constancy of purpose when profound knowledge supports EDM.

According to the late physicist Stephen W. Hawking, "The cost of bad data is the illusion of knowledge,"[15] which is a poor basis for making a profound decision for shaping the future of an organization. Peter F. Drucker recommended that the starting point in EDM should be to ensure that the data upon which recommendations are made has integrity and is reported clearly so that the decision alternatives are thoroughly understood and any recommendations made are supported by sound analysis.[16] This addresses the first two of Simon's points in his criteria for ensuring bounded rationality. After this, the decision

Table 2: Classic Executive Decisions Based on Ease of Implementation and Time to Implement

Difficulty to Implement	Speed of Implementation: Fast (1 year or less)	Medium (2–3 years)	Slow (more than 3 years)
Easier	■ Start a sales campaign ■ Change pricing ■ Discontinue products or services offered ■ Change incentives ■ Reduce budgets ■ Replace management ■ Downsize organization ■ Close facilities ■ Squeeze suppliers on pricing or discounts ■ Increase/reduce debt	■ Consolidate operations ■ Divest business unit ■ Buy back shares ■ Merge companies ■ Acquire business ■ Consolidate suppliers ■ Outsource functions ■ Extend patent term ■ Change accounting methods or periods ■ Extend the current product families	■ Develop new core competence and/or process capabilities ■ Digitize data collection ■ Influence the content of applicable third-party standards ■ Lobby to assure more favorable laws and tax regulations ■ Develop brand image and reputation
More Difficult	■ Divest inventory, assets, or resources ■ Automate production ■ Inventory liquidation ■ Modify old products or services	■ Relocate to reduce tax or reduce regulations ■ Change IT systems ■ Develop new products ■ Execute an inversion (shift corporate HQ)	■ Develop new markets ■ Introduce advanced technology ■ Change work culture ■ Design an innovative business model

is up to the managerial judgment of the leader. Kahneman noted that 70 percent of executive decisions apply System 1 thinking; however, the quality of these decisions is improved when System 2 rules constrain the scope of System 1 decision applications. Ultimately, the responsibility for the bad decision rests upon the business leader. If the executive's staff has done all it can to provide complete and accurate data, coupled with clear explanations and viable risk-assessed alternatives, then the decision maker must be held accountable for making the final judgments. The job of a quality professional is to set the scene for these decisions by conducting the work necessary to ensure that decisions are based on data which has integrity and sound data analytics.

REFERENCES

1. W. Edwards Deming, *The New Economics,* MIT Press, 1992, 1994.
2. Henri Fayol, *General and Industrial Management,* Sir Isaac Pitman & Sons, 1916 (French), 1930 (English translated by Jean A. Coubrough).
3. Chester I. Barnard, *The Functions of the Executive*, Harvard Press, 1938.
4. Peter F. Drucker, *The Effective Executive*, Harper, 1967.
5. Herbert A. Simon, *Administrative Behavior*, Macmillan, 1947.
6. Karl E. Weick, *Sensemaking in Organizations*, Sage Publications, 1995.
7. David J. Teece, *Dynamic Capabilities and Strategic Management: Organizing for innovation and Growth*, Second edition, Oxford University Press, 2011.
8. Daniel Kahneman, *Thinking, Fast and Slow*, Farrar, Straus and Giroux, 2011.
9. Gregory H. Watson, *The Theory and Practice of Profound Knowledge: An Inquiry into Quality and Strategy Management*, 2018.
10. Gregory H. Watson, "Oh no! It's Theory O!" *Quality Progress*, October 2000, p. 16.
11. Gregory H. Watson, "What is the Theory of Profound Knowledge?" *Journal of Quality and Participation*, April 2018, pp. 27-36.
12. Frederick W. Taylor, *Scientific Management: Comprising Shop Management, The Principles of Scientific Management, and Testimony Before the Special House Committee*, Greenwood Press, 1972.
13. Joseph A. Schumpeter, *Business Cycles: A Theoretical, Historical, and Statistical Analysis of Capitalist Processes*, Macmillan, 1939.
14. Joseph A. Schumpeter, *Capitalism, Socialism and Democracy*, Harper, 1942.
15. Stephen W. Hawking, "Stephen Hawking Quotes," https://www.azquotes.com/author/6401-Stephen_Hawking.
16. Gregory H. Watson, "Selling Six Sigma to Upper Management," *Six Sigma Forum Magazine*, August 2002, pp. 26-37.

Gregory H. Watson

Gregory H. Watson (**greg@excellence.fi**) is chairman of Business Excellence Solutions, Ltd. of Finland. He holds a Ph.D. in industrial engineering and management from Oklahoma State University. Watson is a Fellow and past chair of ASQ, as well as an Honorary member and past president of the International Academy for Quality. He was the first non-Japanese person to receive the W. Edwards Deming Medal from the Union of Japanese Scientists and Engineers.