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Intuitive Decision Making

Despite the welter of data and analytics at their disposal, experienced managers often need to rely on gut instinct to make complex decisions under duress.

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The idea that executives should make decisions according to what their intuition or "gut" tells them is generally out of favor. In a scientific age, one's feelings are supposed to be mastered, while painstakingly collected megabytes of data reveal the correct path. And yet people continue to feel — intuitively, if you will — that this is an oversimplification. For many complex decisions, all the data in the world can't trump the lifetime's worth of experience that informs one's gut feeling, instinct or intuition.

Consider three brief examples. In the game of chess, it appears that grandmasters are carefully thinking through every possible move and countermove. But, as former World Chess Champion Garry Kasparov explained in an interview, "The total number of possible different moves in a single game of chess is more than the number of seconds that have elapsed since the big bang created the universe." For Kasparov, who claims to be able to think up to 15 moves in advance, "intuition is the defining quality of a great chess player."

Of course, business is not a game, and much more is at stake when an executive makes a decision that will affect an entire company. Science, with its often practical outcome — a new drug or technology — is closer to business than chess. And while Thomas Edison famously attributed the quality of genius to "99 percent perspiration," that remaining one percent is often sublime. Further, scientists themselves often address the importance of intuition to their work. Consider the comments of Anton Zeilinger, professor of experimental physics at the University of Vienna and the leader of research groups that have made breakthrough discoveries in quantum teleportation and quantum cryptography: "I believe the most important thing is that you should … above all [trust] your own feeling and your own intuition, and then act accordingly." When faced with more than one path of research, he always chooses the more radical one: "Intuition guides me, gives me a feeling about which direction I should continue in."

A professor on the cutting edge of experimentation, however, might be expected to take this stance. Wouldn't a similar approach be foolish, or at least very risky, in business? Not necessarily. Take the evolution of KTM Sportmotorcycle AG, a large manufacturer of motorcycles with headquarters in Mattighofen, Austria. In 1992, Stefan Pierer became CEO of the company as it emerged from bankruptcy. After turning the company around in the first two years of his tenure, he made a leap that most observers — both inside and outside the company — thought was more or less crazy.

The move? To take KTM, a leader in the manufacture of off-road motorcycles, into the world of street motorcycles, a completely different business and one in which the company had no expertise. Despite KTM's lack of know-how and access to the market, Pierer's gut instinct told him it was the right thing to do. And it did lead to success. KTM's entry into the street bike segment helped it become Europe's second-largest sport-motorcycle manufacturer, with 15 years of 25 percent revenue growth. By 2006, 29 percent of the company's revenues derived from its street segment. For Pierer, intuition is critical to effective decision making: "When it comes to really serious business decisions I ultimately rely on my intuition. It's sometimes the case that rational arguments speak for or against something, but then somehow the decision still won't leave me in peace. I wake up in the night and have the feeling that I should do it differently after all."

Recognizing Patterns

Many people wake up in the night with an intuitive sense of a particular course of action they should take. But few are successful CEOs or chess grandmasters. What separates those people from the average?

Go back to chess for a moment. A grandmaster may play up to 50 games at once, making rapid-fire decisions as he moves from board to board. Even in tournaments against other top competitors, grandmasters normally make a decision about where to move within a few seconds. They spend the remainder of their allotted time thinking the move through and considering whether it is the right one.

In such a complex game, how is it possible to make the right decision within seconds? Consider this experiment. Inexperienced chess players were given a few seconds to examine the positions of 25 pieces, arranged as they might be midway through a normal game. When asked after an interval to reposition the pieces, they located on average only six of the original positions. A chess master, however, correctly replaced all 25 pieces.

One initially might attribute this outcome to the master's extraordinary ability to absorb and store visual information. But a second part of the experiment tells a different story. When the 25 pieces were placed on the board randomly, novice players again positioned six pieces correctly — and so did the masters. Why? A chess master sees a pattern behind potential configurations of the game. According to one estimate, a professional player can recognize about 50,000 configurations. But if the pieces are positioned in ways that make no sense according to the rules of the game, he will be unable to detect a pattern, and his results will be no different from those of a novice.

As this experiment reveals, what we call intuitive decision making is really one's ability to recognize patterns at lightning speed — a process that often happens unconsciously. This is an especially important trait for complex decisions. Professor Gerald Hüther, a neuroscientist at the University of Göttingen in Germany, told us that the human brain functions like a computer only when considering trivial decisions. Complex decisions, however, bring into play a process in which knowledge, experience and emotions are linked, and this process is what people commonly think of when they hear the word "intuition." Research has found that people who have acquired deep wells of knowledge and experience — through their curiosity, openness and propensity to seize opportunities — are able to reach good "intuitive" decisions much more frequently than people who possess a relatively limited sphere of experience. And this brings us back to the development of intuition in high-level managers.

Intuition and the Senior Executive

Intuition, then, needs some rescuing from its detractors. It is not a magical sixth sense or a paranormal process; nor does it signify either random and whimsical decision making or the opposite of reason. Rather, intuition is a highly complex and highly developed form of reasoning that is based on years of experience and learning, and on facts, patterns, concepts, procedures and abstractions stored in one's head.

The question is, can executives hone their intuition and thereby improve their chances of making good decisions? While the study of intuition and its benefits is a relatively new and unexplored area of management science, studies reveal that the cultivation of instinct requires the following.

Experience The more extensive a decision maker's experience, the more patterns he or she will be familiar with; the more patterns, the better the intuition. When an experienced senior executive attributes a decision to "gut instinct," he is saying in different words that he recognizes patterns from experience. Studies in psychology have found that one needs at least 10 years of domain-specific experience to develop the gut feeling needed to make good instinctive decisions. Other studies have shown that senior executives at the highest level make more intuitive decisions than senior executives at the middle and lower levels, and that owners of small businesses make about the same proportion of intuitive decisions as the most senior executives of large companies.

Networks Executives need networks in order to share experiences and to hear how their decisions have been received. Top senior executives should surround themselves with people who are their equals and with whom they can maintain an open climate of discussion.

Emotional Intelligence The neuroscientist Joseph LeDoux has proven that the amygdala — site in the brain of emotional memory — categorizes stimuli and triggers behavior faster than cognitive processes. In other words, emotion precedes cognition. According to psychologist Daniel Goleman, 90 percent of the differences between top-performing and average-performing senior executives can be explained by emotional intelligence. And this primarily means being able to recognize and interpret one's emotions.

Tolerance Intuition grows best in an environment in which both positive and negative experiences can be had. For top management, this requires a willingness to tolerate mistakes. Senior executives can create such cultures by publicly and continuously supporting people who take risks and make mistakes. As Nestlé S.A. CEO Peter Brabeck-Letmathe told us about the process of hiring or promoting senior executives, "[I]t is just as important to investigate [their] failures or defeats [as their successes]. In my view, only someone who has some failures to show in their history can carry out a leadership role in a forward-looking way, because only then is it clear that the person was willing to take risks."

Curiosity Despite career pressures, senior executives shouldn't rein in their curiosity — it is a prerequisite for discovering new opportunities. As management guru Peter Drucker wrote, "A good manager always focuses his attention more strongly on opportunities than on risks … constantly worrying about problems does not really move things forward. Doing this merely averts damage to the company. Positive results can only come about if senior executives consistently exploit opportunities. Thinking and acting in an opportunity-oriented way is a prerequisite for striking new paths. Striking new paths is a prerequisite for gathering experiences. And intuition needs experience."

Limits Like any good thing, a reliance on intuition can be taken to extremes. Again, Drucker's words are wise: "I believe in intuition only if you discipline it. The 'hunch' artists, the ones who make a diagnosis but don't check it out with facts, with what they observe, are the ones … who kill businesses." As with the chess master who spends a fair amount of time rethinking the decision he intuitively made within seconds, executives should reflect on their intuitive decisions before they execute them.

Making Their Own Luck

Successful senior executives appear to possess the ability to be lucky, to be able to exploit chance situations. In fact, however, some people are more capable than others of recognizing "chance" opportunities and seizing them at the right moment. They detect weak signals that others don't see and recognize patterns before others can. As University of Innsbruck professor emeritus Hans Hinterhuber told us, they are able to filter out the "many ambiguous, contradictory and frequently deceptive pieces of information from those pieces of information that are required for strategic decisions."

In a 2006 interview, the CEO of T-Mobile International AG & Co. KG, René Obermann, explained why this ability is so important. (Obermann is now CEO of Deutsche Telekom, T-Mobile's parent company.) Ticking off a list of highly successful recent innovations, he noted that quantitatively oriented market research had failed to predict the massive enthusiasm for pocket-sized personal computers, text messaging and wireless e-mail service. Such cautionary tales, in part, led the company to "rely very heavily on the results of qualitative research and on our own intuition in our new product development process. The entire management and development team has extensive experience in the market, and I believe it is able to very accurately assess what areas we should pursue."

> Analytics can never trump the intuition of a thoughtful executive, wrought by years of experience and accumulated knowledge, tempered by emotional intelligence.

In an age of data overload, such confidence is critical, as analytics can never trump the intuition — wrought by years of experience and accumulation of knowledge, and tempered by emotional intelligence — of a thoughtful, curious executive constantly seeking new opportunities. Under the right conditions, companies can help foster a climate in which such people are developed. And that's an intuitive lesson worth considering.

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