Obstacle course
for analytics

Since analytics are so logical, proven and beneficial, why is their adoption rate by organizations so gradual and slow? Hint: Social, behavioral and cultural issues.

By Gary Cokins

Careers sometimes have more to do with luck and circumstances than being smart and competent. I have been fortunate in having luck to meet opportunity. My 1960s high school love for mathematics led to degrees in industrial engineering and operations research at Cornell University and an MBA from Northwestern University's Kellogg School of Management. After 10 years in CFO and operations line manager roles, I enjoyed 15 years in management consulting on enterprise performance improvement projects with Deloitte, KPMG and Electronic Data Systems (EDS, now owned by HP). During my consulting years I worked with academic luminaries such as professors Robert S. Kaplan and David Norton on balanced scorecards and also with Tom Davenport on analytics. This led to my authoring six business books. What I have learned through observation is that passion along with curiosity drives discovery. Passion is the mysterious force behind nearly every step-change in a process or introduction of a new idea.

If you always tell the truth, then you do not have to remember what you said. I have a true confession to make – I have two loves. It involves my relationship with problem-solving analytics and improvement methodologies. So what is my love problem?

The Quest for Buy-in

UNTIL ABOUT THREE YEARS AGO, my main interest was explaining the "how-to" for applying analytics. I have implemented analytical techniques. I'm a practitioner. I am often told I have a gift to explain complex things in a way that a common person can understand them. I love explaining to people how things work and inspiring a vision on how those same things can work much better in the future. For this article, I might fail in giving an easily understandable explanation that you can grasp. Love is very complex! But let me give it a try.

What happened to me three years ago is I was smitten. A competing suitor of my "how-to" love appeared. It is my new "why-to" love – explaining the benefits of why to apply analytics. They both compete for my attention. What happened is as I concluded my seminars or discussions with potential users of analytics, I began asking this question: Since analytics are so logical, proven and beneficial, why is their adoption rate by organizations so gradual and slow? Eureka! A flood of reactions gushed from people, describing many diverse barriers and obstacles. I found myself personally and increasingly attracted to these "why-not and why-to" discussions in contrast to my "how-to" lectures. When I witness examples of applying analytics, it takes my breath away. However, discussions about "why-not and why-to" are now capturing my heart. My dilemma of two loves is a nice problem to have. I love what I do.

Organizations seem hesitant to adopt analytics. Is this due to evaluation paralysis or brain freeze? Most organizations make the mistake of believing that applying analytics is 90 percent math and 10 percent organizational change management with employee behavior alteration. In reality it is the other way around; it is more likely 5 percent math and 95 percent about people.

The Major Hurdle

WHAT IS THE PRIMARY BARRIER slowing the adoption rate of analytics? With hindsight, we now realize that past barriers impeding the adoption rate are easily removable. That is, technical barriers such as disparate data sources or "dirty" data now have software solutions such as extraction, transform and load (ETL). Problems such as insufficient data are also not insurmountable with a little effort. We also now realize that analytical modeling design deficiencies, such as weak models for evaluating customers for their future sales potential, can be overcome with experienced consultants or better training courses. Other barriers such as the misperceptions that analytical techniques are too complex or pilot projects failures are not the showstoppers they once were, and they too can be overcome.

So what continues to obstruct the adoption rate of analytics? Major ones are social, behavioral and cultural issues, including people's resistance to change, fear of knowing the truth (or of someone else knowing it), reluctance to share data or information and a "we don't do that here" mindset. Never underestimate the magnitude of resistance to change. People naturally love the status quo.

An example of this social and arguably political barrier is a conflict between the IT function and analysts – a brick wall. There will need to be a shift from face-to-face adversarial confrontation to a side-by-side collaborative relationship to remove this wall. Part of the problem is how IT and analysts view each other.

Analysts view IT as an obstructionist and uncooperative gatekeeper of data without the skills to convert that data into useful information. Experienced analysts want easy and flexible access to the data and the ability to manipulate it. They want a set of capabilities for investigation and discovery. IT typically tries to prevent this. Analysts view IT as bureaucrats who manage a set of technologies and whose main goal is to keep the lights on.

In contrast, IT increasingly views users as competitors who may solve problems but don't have to operate the solutions – they just make it harder to better manage capacity costs by using too many IT resources. And IT sees users as a risky group that has low regard for data governance and security.

Analysts need speed and agility to be reactive and proactive, which requires them to be closer to the data for analysis and better decision-making. Both IT and its users will need to collaborate and compromise by better understanding and appreciating each other's changing roles.

Romancing Analytics

MY HEART POUNDS FASTER when I hear or read about analytics. I have learned that ambiguity and uncertainty should be an analyst's friend. Why? If getting answers were easy, an analyst's salary would probably be lower!

However, a problem with removing behavioral barriers to deploy analytics is that almost none of us have training or experience as organizational change management specialists. We are not sociologists or psychologists. However, we are learning to become like them. Our adoration for the "why-to" and its motivating effects on organizations should be driving us as an obsession. The challenge is how to alter people's attitudes.

One way to remove cultural barriers is to acknowledge a problem that all organizations suffer from. They have an imbalance for how much emphasis they should place on being smart rather than being healthy. Most organizations over-emphasize trying to be smart by hiring MBAs and management consultants with a quest to achieve a run-it-by-the-numbers management style. These types of organizations miss the relevance of how important it is to also be healthy – assuring that employee morale is high and employee turnover is low. To be healthy they also need to assure that managers and employees are deeply involved in understanding the leadership team's strategic intent and direction setting. Healthy behavior improves

the likelihood of employee buy-in and commitment. Analytics is much more than numbers, dials, pulleys and levers. People matter … a lot.

When organizations embark upon applying or expanding its use of analytics, I believe they need two plans: 1) an implementation plan and 2) a communication plan. The second plan is arguably much more important than the first. There are always advocates for a new project, but there are also naysayers. Knowing in advance who the naysayers are is critical to either win them over or avoid them.

Why does shaken confidence reinforce one's advocacy? Here is some disturbing research [1] from the field of psychology that relates to the social barrier to applying analytics. It deals with why people actually hang on stronger to their ideas even after they learn their ideas are proven wrong. Using tests with a control group, the researchers revealed that the more that people doubt their own beliefs, then paradoxically the more they are inclined to support and lobby for them. The test subjects who were confronted with evidence that challenged and disproved their beliefs subsequently advocated them even more aggressively compared to the control group.

This finding is bothersome because applying fact-based quantitative statistics and logical methodologies is far superior than making decisions based on intuition and gut feel. How can we transform people who are a "Dr. No" into a "Dr. Know"? Shouldn't executives and managers desire to gain insights or know something about the future before their organization gets there? How valuable should it be to them to know things that their competitors do not know?

Early Adopters and Laggards

ANOTHER BARRIER to analytics adoption involves organizations that are too distracted with problems and prefer to search for quick fixes. The urgent crowds out the important. They do not take the time to solve problems with a better way. In our personal lives, many of us have no problem making everyday decisions, such as whether or not to purchase a smart phone or join a social network. How can we as individuals make decisions so quickly, while organizations often struggle and are slow to react?

The field of marketing scientifically examines influences on the rate of adoption of products, services and technology. Everett Rogers, a business researcher, developed his Diffusion of Innovations model with five categories of adoption: innovators, early adopters, early majority, late majority and laggards. Which category best describes many organizations with respect to adopting analytical methods? My observation is that most fall into the laggards' category.
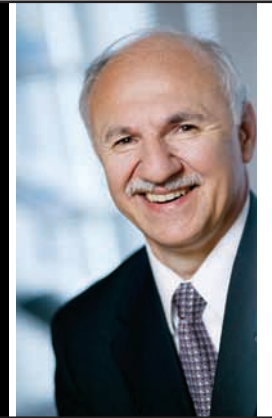
Innovators and early adopters quickly move forward because either they are having financial difficulties needing new solutions or they are very progressive and driven to con-

Organizations that want to move beyond the laggards category must take on the mentality of the early adopters, who understand the importance of using analytics to enhance decision-making and align employee behavior and priorities to execute the executive team's strategy.

- Gary Cokins

Gary Cokins

tinuously seek a competitive edge. On the other hand, the late majority and laggard organizations are either risk averse with the resistance to change that I earlier mentioned, or they have weak leadership with little vision of the value of analytics.

But I believe there is another possible explanation for the laggards: they are too distracted. Increasing volatility no doubt is part of the problem. Examples include changes in consumer preferences, foreign currency exchange rates and commodity prices. The Internet, global communications, social networks and relaxation of international trade barriers have also introduced vibrations and turbulence. But is increased worldwide volatility a good enough reason to not adopt or at least test analytical methods? Analytics can be adopted by late majority and laggard organizations, regardless of volatility with proven methods and techniques, such as with pilot projects and rapid prototyping for a proof of concept.

Organizations that want to move beyond the laggards category must take on the mentality of the early adopters, who understand the importance of using analytics to enhance decision-making and align employee behavior and priorities to execute the executive team's strategy. They must be proactive, not just reactive. Most importantly, remember that it's never too late to go from being in the middle of the pack to taking a commanding lead over your competitors.

Harvard Business School Professor Michael Porter's defined accepted, generic strategies for a company (i.e., cost leadership, differentiation and focus); however they are all vulnerable today because competitors can more quickly take actions such as reduce costs, imitate a company or invade a company's market niche. An organization's best defense against the competition is the ability to quickly make intelligent decisions, which can be accomplished by implementing analytics. Organizations that achieve competency with analytics are able to sustain a long-term competitive advantage.

Overcoming Change Resistance

HOW CAN ONE overcome resistance to change? Resistance to change is arguably the root cause of the slow adoption rate problem. A proven approach to accelerating the acceptance and learning rate is to create an analytics competency center. Much

has been written about this. It works, but I have an additional idea.

I have relied on a simple formula as a guide for how to overcome resistance to change. It is $(D \times V \times F) > R$, where R stands for resistance (Figure 1). Do not underestimate how large the R is; it can be enormous. Therefore, in the equation if D, V or F is zero or small, then their multiplicative combination will not exceed R. You will need all three factors in great abundance. OK. What are the D, V and F?

- **D** is dissatisfaction with the current state. Unless people have discomfort, they will not be interested in changing anything.

■ Overcoming resistance to change.

- **V** is a vision of what "better" looks like. When people see a different view of their circumstances that can lead to an improved condition, they will consider changing.

- **F** is often neglected; it stands for first practical steps. Large amounts of D and V are not enough to overcome a large R. If people think the vision (V) is overly theoretical, complicated, costly or impractical, they will not pursue changes to realize that vision.

You need F to make the vision attainable. Examples of F are pilots and rapid prototyping with iterative re-modeling techniques to demonstrate value and prove concepts. These accelerate learning and will get more buy-in.

Most enthusiastic and well-meaning managers try to promote their vision – the V in the equation. They get excited about analytics. My advice from experience is to first focus on the D and not the V. Here is why.

Change will only result when people feel compelled to change. Having high levels of dissatisfaction and discomfort, the D, is your best lever to influencing colleagues and getting buy-in. But dissatisfaction is often latent and is not overt. You will need to create the required discomfort in your colleagues and managers. This can be achieved by using the Socratic method of asking colleagues questions, such as "How do we know which types of customers to retain, to grow, to acquire as new or to win back, and how much should we optimally spend on each customer type for maximum profit lift? How accurate are our forecasts of demand?" Ask them similar questions for which you know analytics will provide good answers with high payback.

In many cases your colleagues and executives will not have good answers. When they do not, ask them, "Is that a good thing? How long do we want to perpetuate making decisions without knowing these answers?" If you ask these thought-provoking and deliberately disturbing questions in the right way, you will not need to spend much time on promoting your
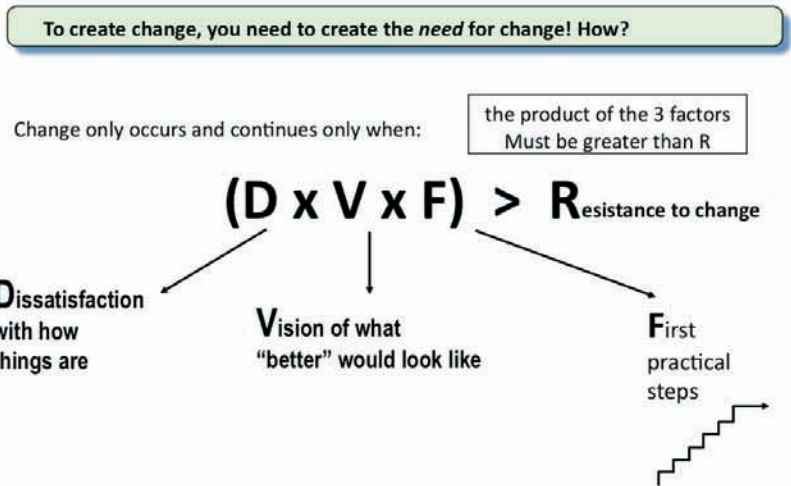
vision (V) of the equation – why use analytics. By converting and exposing latent problems into ones evident to your executives and colleagues, the solutions become more obvious and understandable.

Analytics for Value Creation

ALWAYS REMEMBER that in the absence of facts, anybody's opinion is a good one. And usually the biggest opinion wins – which is likely to be that of your boss or your boss' boss. So to the degree your executives are making decisions based on intuition, gut feel, flawed and misleading information or politics, then your organization is at risk. Does your organization know, or do they think they know? By creating doubt one can overcome resistance to change.

Until an organization gains mastery over validly answering questions with analytics, it will plod along and muddle through improving its performance rather than accelerate value creation. **IORMS**

Gary Cokins (Cornell University BS IE/OR, 1971; Northwestern University Kellogg MBA 1974) is an internationally recognized expert, speaker and author in advanced cost management and enterprise performance and risk management systems. He is a Principal in business consulting involved with analytics-based enterprise performance management solutions with SAS, a global leader in business intelligence and analytics software. He began his career in industry with a Fortune 100 company in CFO and operations roles. He then worked 15 years in consulting with Deloitte, KPM and EDS. His two most recent books are "Performance Management: Finding the Missing Pieces to Close the Intelligence Gap" and "Performance Management: Integrating Strategy Execution, Methodologies, Risk, and Analytics." Cokins can be contacted at gary.cokins@sas.com . His blog is at http://blogs.sas.com/content/cokins .

REFERENCE
1. David Gal and Derek Rucker; Northwestern University's Kellogg School of Management, "When in Doubt, Shout," *Psychological Research,* November 2010.