

Creating a Fact-Based Decision-Making Culture



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Introduction

In many organizations, the use of BI/analytics is no longer a “nice to have.” Rather, it is a requirement for competing in the marketplace. Because the execution of the business strategy is dependent on analytics, we can call them *analytics-based organizations*.

Like nearly all IT undertakings, analytics involves technology, people, and processes. Although each component of this triad presents implementation challenges, the human component is often the most difficult. Workers have considerable volition over what they will and won’t do and must be carefully considered in any change management strategy.

The movement to being an analytics-based organization may require hiring additional people (e.g., data scientists) with specialized skills (e.g., social media analytics), but more important, it involves getting existing employees to change their mindset, learn new skills, and embrace new business processes. Getting people to change how they work involves many factors—access to accurate data, user-friendly data analysis tools, and user training—but it also requires cultural changes. Having the right data and the right technology is a necessary, but not sufficient, condition.

Workers must understand and accept that decisions and other work-related activities are going to be strongly influenced by the use of analytics (though intuition and experience will still have important roles). Facts, rather than “gut feelings,” will become the basis for decision making. Analytics will be integrated into worker and business processes. When companies successfully get to this point, they have achieved a *fact-based decision-making culture*. This is the culture that is needed to derive the full value from analytics.

The Big Picture

Figure 1 presents a framework for a fact-based decision-making culture. The culture is created by senior management, enabled by business intelligence, and characterized by how the business is run, including constant experimentation. These, in turn, drive positive financial and other results.

Executive Commitment

Executives set the tone for how an organization operates. Though it is not always easy, they can change the DNA of their organization's culture to make it fact-based, but they must be committed to leading the change.

Without C-level commitment, analytics typically remains siloed rather than systemic. Enterprisewide change occurs when senior management communicates, facilitates, and demands that change takes place. They set the goals, metrics, expectations, and priorities for analytics.

The need for executive rather than departmental support is analogous to the implementation of scorecards and dashboards. Although dashboards can be implemented departmentally, scorecards—which link business strate-

gies to business processes and activity metrics—must be implemented top-down.

Business Intelligence

The BI team is at the heart of any analytics-based organization. It collects, cleans, maintains, and provides access to most of the data used in analytics. It provides many of the analysis tools used, develops enterprisewide applications, helps create many domain-specific apps, takes BI mobile, and provides training and support. BI is a necessary enabler of any movement to a fact-based decision-making culture.

Running the Business

Analytics-based organizations are run by the numbers. Facts drive decision making, problem solving, and business activity. Reports, dashboards and scorecards, OLAP, and alerts help workers keep a finger on the pulse of the business. Predictive models forecast and help management anticipate and plan for the future. Prescriptive models support the optimization of decision making and business processes. Strategies are based on what analytics reveal, such as whether a market is worth entering.

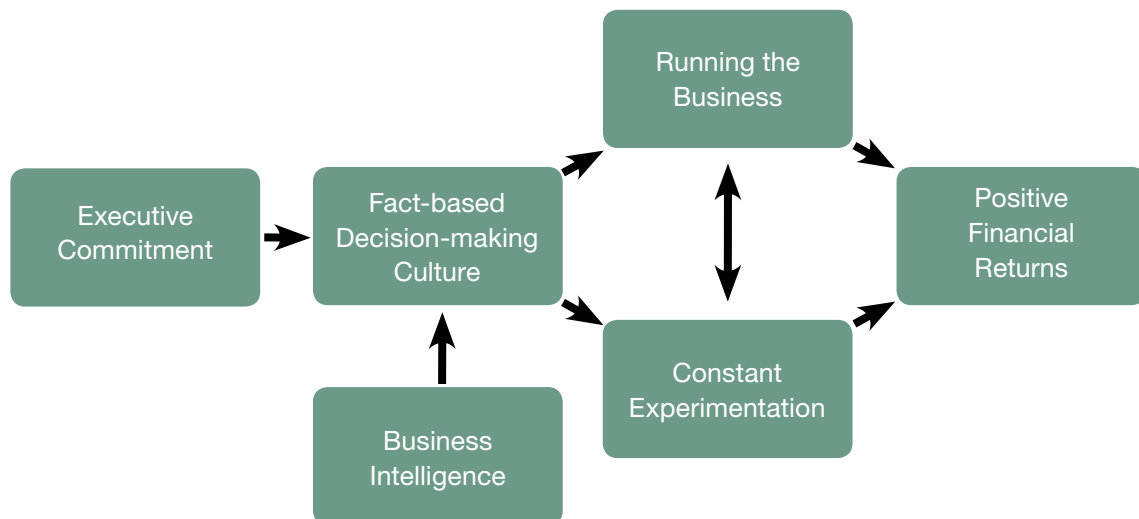


Figure 1: Framework for a fact-based decision-making culture.

Harrah's (now Caesars) provides a good example of how analytics can change the management of a business (Watson and Volonino, 2000). Prior to the widespread use of analytics, casino managers ran their casinos as personal "fiefdoms." Decisions were made based on "Harrah-isms"—the managers' personal beliefs about what did and did not work. Under the leadership of Gary Loveman (recently retired), decision making became analytical and fact-based. It is now said that three things will get you fired at Harrah's—stealing, sexual harassment, and failing to make decisions based on the facts.

Constant Experimentation

Analytics-based organizations are constantly experimenting to see what works best. The basic approach, concepts, and terminology trace their roots to agricultural experiments. For example, take a plot of land and plant or treat half of it as normal; this is the control group. The other half is planted or treated with the new method, such as a different seed, fertilizer, watering schedule, and so on; this is the experimental group. While holding everything else constant, you're able to see what the resulting differences are and attribute them to the new method.

Harrah's runs thousands of such experiments annually. For example, what is the best offer to entice senior citizens in Atlanta to go to Harrah's in Cherokee, North Carolina? Two different offers—the A and B—are sent to a sample of the target population. The first offer might be \$75 in free chips and the second might be a free night's stay. Harrah's tracks who accepts which offer in order to decide which is best for this clientele.

The business drives the experiments and the results are fed into the running of the company, which in turn drives positive financial results.

Making the Change

Bringing about organizational change is never easy. Some workers have been successful in their decision making in the past and may question and resist the need to change. Others may lack the skills, training, aptitude, or motivation to do so. A combination of the following approaches can help move an organization toward a fact-based decision-making culture.

Use Dashboards/Scorecards as a Starting Point

There is an old adage, "That which gets watched gets done." When people are given information about their performance—often in the form of a personal dashboard or scorecard—and they know that they are accountable for their performance, they will strive to perform well on the metrics used in the dashboard. Because dashboards and scorecards provide a relatively easy introduction to analytics, are easily understood, and can change workers' behavior, they are a good starting point for creating a fact-based decision-making culture.

Focus on Early Wins

In 2002, First American Bank (FAC) was in financial trouble (Watson, Wixom, and Goodhue, 2002). A new senior management team arrived and decided the solution was a business strategy that was dependent on analytics. Through analytics, FAC would know its customers well; meet their needs; offer appealing, profitable products and services; and provide distribution channels that focused on customers' needs and preferences.

Because previous strategies for "saving the bank" had failed, senior management knew that this new strategy would be met with skepticism. As a result, initial projects were begun under a veil of secrecy. Only after the projects resulted in significant financial "wins" was the strategy announced and promoted throughout the bank. By focusing on creating early successes, senior management was able to demonstrate the value of analytics to potentially skeptical employees.

Ask What Analytics Were Used

Workers must know that senior management expects analytics to be part of decision-making processes. One strategy is to ask employees what analytics were used in arriving at a recommendation or decision. Another is to give people less time to talk in meetings unless they have data to support their assertions. You might simply inquire, "What's the basis for your thinking?" When management repeatedly asks this question, most employees will change their behavior (if they have the training, aptitude, and skills to do so).

Robert Kaplan is one of the originators of the Balanced Scorecard and Strategy Maps. He tells the story of a CEO

who would visit regional offices and stop randomly at workers' desks, show them the strategy map, and ask if they knew what it was (Kaplan, 2013). If the worker said yes, the CEO would ask for an explanation of the strategy and how what the person was working on contributed to one of the objectives of the strategy. Needless to say, the workers and their bosses quickly learned the importance of being familiar with the company's strategy map and focused their work on meeting company objectives. The key was communicating the expectation that analytics (strategy maps in this case) are important in driving decisions and other work activities.

Empower Operational Decision Making

Some companies have invested heavily in BI and analytics but have relatively little to show for it. In this case, workers may not have been given proper information and the power to use it to make decisions and improve organizational performance—or the expectation that they should. Many organizations can improve their performance by focusing on how operational data can improve daily decision making (Ross, Beath, and Quasdgrass, 2013).

Seven-Eleven Japan decided to change how inventory was ordered daily for its convenience stores by turning decision making over to its 200,000 mostly part-time clerks (Ross, Beath, and Quasdgrass, 2013). These clerks dealt with customers on a regular basis and had a feel for what was selling and what customers wanted. Supplementing this first-hand experience were reports that showed what sold the previous day, what sold the previous year on the same date, what was sold on days with similar weather, and what was selling at other stores.

Given this information and the ability to order three times a day, the clerks had the information and the decision-making authority to have the right items on hand and to work with suppliers to develop products that suited local customers' tastes. This practice has helped Seven-Eleven be the most profitable retailer in Japan for over 30 years.

Provide Incentives to Change

1-800 CONTACTS, a leading supplier of contact lenses, provides a great example of how dashboards and scorecards, when tied to incentives, can change organizational

behavior and drive business profits (Watson and Hill, 2009). Management decided to implement individual dashboards for its call center operators. The dashboards displayed metrics such as the closing ratio, average sale, and calls per hour, as well as comparisons with the operator's own past performance and that of other operators. The operators competed for bonuses as high as \$1,000 per month depending on their performance and that of the business. This application drove an increase in revenues of \$50,000 per month and call quality remained high.

Some Employees May Need to be Replaced

Although you hope that employees will embrace the movement to fact-based decision making, the reality is that some workers will not have the required skills, aptitude, or desire to change and will have to be replaced. In response to a question about the greatest organizational impacts associated with the use of analytics at FAC, the CEO said that prior to the use of analytics, FAC had 12 people in its marketing department. Afterwards, all of them had either left the bank or found work in other departments. According to the CEO, "They thought that marketing was running focus groups and giving out suckers and balloons along the teller line, but marketing has become very analytical and they could not do the work."

Positive Financial Returns

There is growing evidence that analytics and a fact-based decision making culture can improve financial and other performance measures. One study of 179 large publically traded firms found that companies that have adopted fact-based decision making have output and productivity that is 5 to 6 percent higher than other firms; the relationship extends to other performance measures such as asset utilization, return on equity, and market value (Brynjolfsson et al., 2011).

In 2010, the *MIT Sloan Management Review*, in collaboration with the IBM Institute for Business Value, surveyed a global sample of nearly 3,000 executives (LaValle et al., 2011). They found that top-performing organizations use analytics five times more than lower performers and that 37 percent of the respondents believed that analytics creates a competitive advantage. A follow-up study was conducted in 2011 and the percent-

age of respondents who reported that the use of analytics was creating a competitive advantage rose to 58 percent (a 57 percent increase) (Schroeck et al., 2012). These and other studies show the positive relationship between fact-based decision making and organizational performance and competitive position.

Conclusion

A fact-based decision-making culture is not created overnight. Careful thought has to be given to how it will be brought about. Hopefully, some of the approaches and examples provided spur your thinking. All of them, however, require ongoing coaching of the people who are expected to be part of the new culture. ■

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