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Achieving High Performance through Analytics

Applying analytics throughout the organization, rather than in pockets of activity as pharma typically has, can be a catalyst for business performance.

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The topic of analytics as a performance lever for continuous improvement seems both obvious and odd. Anyone who has been involved in operational excellence, Lean manufacturing, Six Sigma, Kepner-Tregoe, or other problem-solving techniques knows the value of measurement as a tool for improvement. Yet, analytics is much more than just measuring and reporting data. The concept of using analytics as a catalyst for business improvement involves transforming an organization's decision-making process and offers a foundation for business strategy and tactics.

Why focus on analytics now? There are several compelling reasons why analytics is a catalyst for business performance. The unprecedented contraction of the pharmaceutical industry worldwide has pushed the industry to look at ways of improving business performance. In the U.S., the passage of H.R. 3962, the Affordable Health Care for America act of 2009, purports to put even greater pressure on the industry to drive down payer costs. Cost reduction strategies will only go so far before capability and business performance become mutually exclusive. As corporations look for any advantage in the marketplace, business performance remains the last great differentiator. The industry will always look for the next blockbuster drug, but this hardly constitutes a strategy. Many companies find themselves competing with similar drug therapies, cannibalizing each competitor's market share in a relentless game of give and take. Geographical advantages have largely fallen by the wayside as pharma has gone global, and the impact of proprietary regulation has also been largely eliminated.

The Hatch-Waxman Act has changed the payback paradigm of innovator drugs while variability in global IP protection law has made it more difficult to keep copycat drugs off the market. So if you don't have the blockbuster drug in your pipeline, the road ahead can be a rocky one. Analytic organizations do not discount these challenges or opportunities, but accept them with the clear business objective of maximizing efficiency and effectiveness in all of their critical business performances along the way.

Analytics Today

I don't mean to imply that pharma does not apply analytics today. There are numerous examples of analytics in most organizations, such as:

- Design of Experiments
- Monte-Carlo Simulation
- Statistical Process Control
- Yield and Capacity Analysis

Typically, these analytics represent pockets of activity, including significant data gathering and trending activity as part of a regulatory and compliance commitment.

Business Intelligence

There is not a Six Sigma or Lean manufacturing professional in our industry who has not at one time or another shouted the mantra of improvement through measurement. Analytics represents the end product

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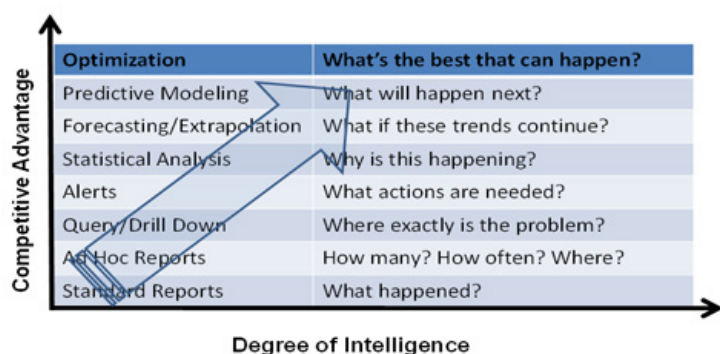
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output of the data gathering and measurement exercise. The relationship between business performance and analytics is shown below in Figure 1.

Figure 1. Analytics and Business Intelligence



This graph may seem self explanatory, but it captures the essential failure point within organizations that have embraced measurement and reporting as part of their culture and highlights the benefits of integrating analytics to exploit their business strength. In simple terms, this means using analytics to exploit what the business does best and employ this as a catalyst for business performance.

Organizations that compete effectively on analytics have several characteristics in common [1]. They are:

- Hard to Duplicate
- Unique
- Adaptable
- Better than the Competition
- Renewable

Hard to Duplicate

There is no magic formula for success. If there were, organizations would be launching blockbuster drugs each year. Trying to duplicate a company's systems and culture is nearly impossible. Dashboards are a case in point. Most organizations that consider themselves on the leading edge employ some level of summary dashboard. These are typically linked in some fashion to divisional, departmental and individual goals and focus the organization on those critical activities that help the business meet its strategic imperatives.

However, many of these same organizations are the ones which are mired in the high profile quality issues that have rocked consumer confidence. A framework without focus will not push the organization's performance to the next level. To be successful, the lessons learned from other companies must be tailored to the strengths and weaknesses of your organization and exploited as a business differentiator.

For example, one company may compete on analytics built around low cost highly skilled labor. Any organization can understand the potential benefit of lower standard costs but the question is, is the decision to pursue an expansion into such a market really appropriate for your business? If it is, can't I just copy my competitor's blueprint and realize the same benefits? Many of the BRIC (Brazil, Russia, India and China) nations have seen tremendous growth because of this same thinking. Most multinational pharma companies have some sort of operation overseas. But along with this low-cost opportunity comes supply chain complexity and heightened compliance issues. The details behind what it takes to make

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such an expansion and your organization's ability to meet these challenges will dictate the degree of success in terms of business performance.

Unique

The systems developed for the high performers within our industry are unique to each company's make-up, from the leadership capability and experience down to the approach to market analysis. Building upon the previous expansion decision discussion, if supply chain and distributed compliance are not your strengths then such a move could actually debilitate the organizations near term revenue stream—or worse—jeopardize consumer confidence in the face of a high profile quality issue. Perhaps, rather than pursuing an expansion strategy it makes more sense to exploit your organization's strength in automation and technology, driving concepts such as PAT upstream and downstream through your organization. Focusing on process stability, predictability could provide a much greater level of business efficiency providing a similar cost reduction while reducing compliance risk and increasing business nimbleness. High-performing organizations are comfortable with breaking the conventional paradigm to achieve business performance because the metrics for success are well understood and are unique to their organization.

Adaptable

Analytic competitors often find that the system used to optimize one facet of the business can be adapted to catalyze performance in other parts of it. For example, if an organization has developed a well-refined approach to market analysis through the utilization of focus groups, the same principles could be applied to catalyze employee satisfaction, building a high performing organization.

Better Than the Competition

High performing analytic competitors build capability, and a survey of high-performing companies found that they were just better at interpreting the available data. Some key characteristics of high performers are summarized in Table 1. The summary is consistent with the basic principles of operational excellence except the emphasis is on the application and interpretation of the metrics and its alignment with business performance.

In reviewing Table 1, 65 percent of high-performing competitors indicated they had significant decision-making support across the organization and the ability to leverage real-time data and analytics compared to only 23 percent of the low performers. Eight percent of the low performers felt that management valued data and analytics compared to 36 percent of high performers. Interestingly, one-third of the low performers felt they were pretty good at analytics despite their poor business performance, while 77 percent of the high performers knew they had higher than average capability when it came to analyzing data. Finally, 40 percent of the high performers indicated that they had embedded this concept of analytics across the organization, compared to only 23 percent of the low performers.

Table 1. 2006 Survey Summary of High and Low Business Performers

Low Performers	Attribute	High Performers
23%	Significant decision making/ Analytic capability	65%
8%	Analytical insight highly valued as part of culture	36%
33%	Have above average industry Analytic capability	77%
23%	Analytics used across the entire organization	40%

Source: Adapted from Competing on Analytics, Davenport and Harris

Renewable

Like all continuous improvement initiatives, the application of an analytics framework must be reviewed on a regular basis. The ability to aim analytics at a new market opportunity is the difference between capturing a market and having to compete within it. By placing analytics at the foundation of decision making, the organization can extend the framework to the strategic level, driving informed decision making and business risk reduction.

Conclusion

As our industry braces itself for another period of market and economic uncertainty, the potential for

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jumpstarting business performance through focused application of analytics is enormous. The last decade has seen pharma recognize the immediate benefits from efficiency gains through Lean, and to some extent recognized the benefits of reduction variation through the application of Six Sigma. However, few have embraced the enormous potential the integration of high-performing data analysis capability can have on business performance. We have seen consolidation and cost cutting at an unprecedented level over the last few years. Going forward, if companies are to thrive they must build upon the ability to understand what they do best and how that can be exploited as business differentiator through the broad and thoughtful application of analytics.

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