



**How to evaluate an Analytics and
Decision Sciences Partner**

White Paper



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How to evaluate an Analytics and Decision Sciences Partner

Ten things to consider when evaluating analytics and decision sciences partners.

The information explosion has led organizations to leverage data to improve the overall decision-making process. Organizations are looking to deploy data-driven strategies across their business processes and functions, such as marketing, risk, supply chain and finance. It's critical now more than ever to have the right people, processes, methodologies, platforms and infrastructure that enable the institutionalization of analytics. In response to this a wide a range of players have come forth to help organizations with analytics.

However, working with an analytics partner should not be seen as a short-term, project-based decision. Data-driven decision-making is a key muscle that all organizations need to develop, and it requires an ongoing effort. The choice of an analytics and decision sciences partner therefore is one where an organization is entering into a joint collaboration and journey. So how should organizations go about choosing the right analytics and decision sciences partner?

Following are 10 key factors to consider in the search for an analytics partner:

1. Core decision sciences and analytics DNA.

Every company has an underlying DNA that informs its culture and all parts of its organization – recruitment, training, talent management, engagement model, processes and infrastructure. Look for a partner that has built its organization from the ground up around the application of analytics and decision sciences to solve business problems. For example, recruitment and training processes should focus on hiring and preparing the right profile of employees who not only have the required quantitative skills but can combine that with the right consultative, communication, structured problem-solving and business skills.

The culture should emphasize inferential learning, culture of experimentation, innovation, thought-leadership and craftsmanship, while at the same time creating an environment to scale the art of problem-solving using analytics. Processes should be in place that can account for the unique needs of analytics, such as the iterative nature of analysis and the need to balance the creativity and agility required for business with the rigor of math and science. The analytics industry is still nascent. Companies with their core focus and experience in analytics will be able to create, evolve and sustain the right operating culture and DNA.

2. Interdisciplinary approach

Helping organizations make better decisions via analytics requires a combination of business, math and technology skills. The appreciation of business domains, such as marketing, risk and supply chain, keeps analytics relevant. The ability to apply multiple math disciplines such as statistics, econometrics and operations research ensures the partners can address a wide range of business problems of varying levels of complexity. Enabling technologies, which include statistical tools, databases, BI platforms, visualization tools and big data technologies, helps develop, operationalize and scale analytics solutions. Without this mix of math-business-technology, the partner will not be effective.

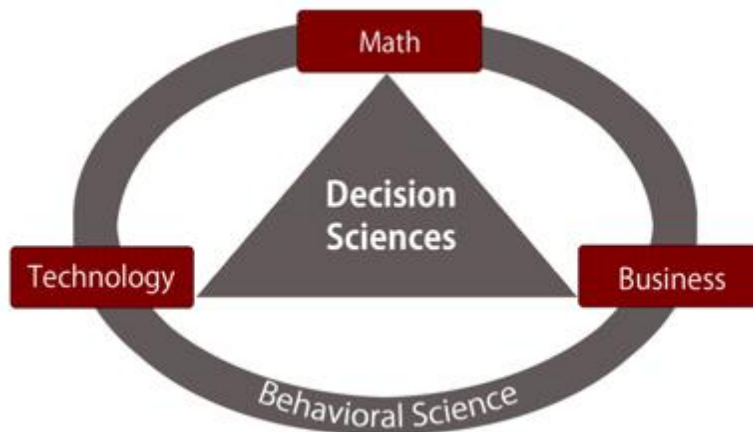


Figure 1

Further, a number of the business problems that organizations need to tackle start off muddy and fuzzy before evolving to be clear for which the scope, objective, analytical solution requirements and methodology can be clearly defined. Addressing such problems needs a synthesis of approaches, for example, the left-brain/algorithmic along with right-brain/heuristic approaches, a mix of art and science, a mix of analytical thinking and design thinking. The ideal analytics partner should be able to appreciate the fact that different problems require different approaches and should be able to traverse the journey from merely the analytics process to decision sciences via integrating multiple disciplines such as business, math, technology, behavioral sciences and design thinking.

3. Analytics across the descriptive to inquisitive to predictive to prescriptive (DIPP™) spectrum

Counter to conventional thinking that organizations evolve from descriptive to inquisitive to predictive to prescriptive analytics, all four kinds of analytics need to be utilized in the right mix to enable the holistic creation of insights.

Briefly, descriptive analytics answers the question, “What happened in the business?” It is looking at data and information to describe the current business situation in a way that trends, patterns and exceptions become apparent. Inquisitive analytics answers the question, “Why is something happening in the business?” It is the study of data to validate/reject business hypotheses. Predictive analytics answers the question, “What is likely to happen in the future?” It is modeling to determine future possibilities. Prescriptive analytics is the combination of the above to provide answers to the “so what?” and the “now what?” questions.

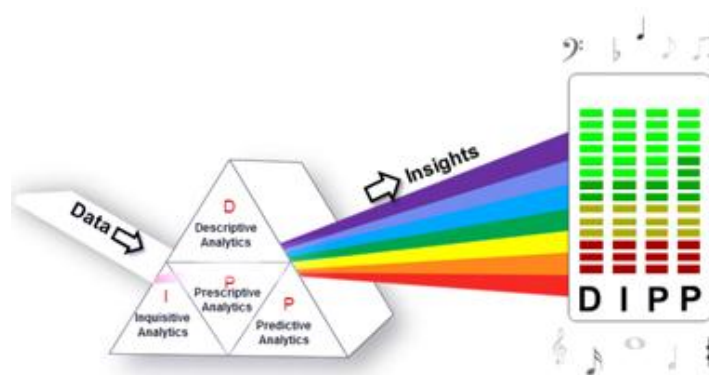


Figure 2

Different business problems will need different levels of all four kinds of analytics. Being able to effectively navigate the DIPP spectrum is essential to generating the right insights and recommendations and enabling better consumption. Organizations should be cautious of analytics companies that focus on only one or partial aspects of the DIPP spectrum.

4. Enabling creation, translation and consumption of analytics

Analytics is not just about data science. The goal of analytics is to solve business problems and enable better decisions. To institutionalize analytics, organizations need to industrialize creation, be very smart about translation and greedy about consumption. To be effective, business problems need to be articulated and translated into analytical problems. Analytical problems need to be solved. Analytical solutions then need to be translated back into business solutions.

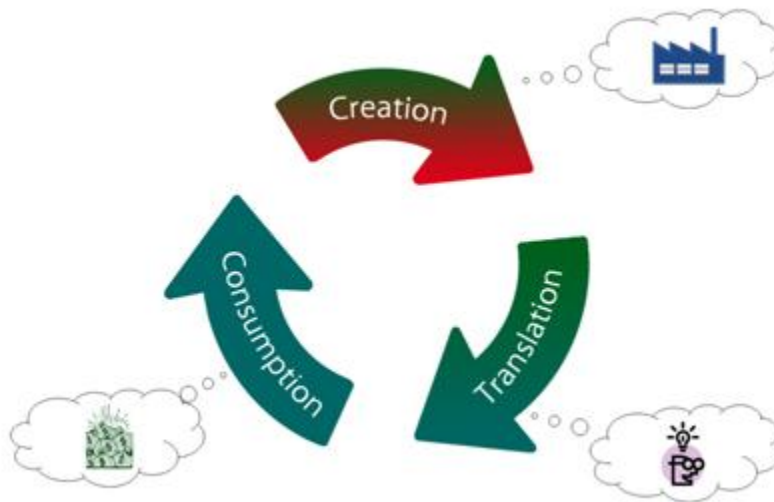


Figure 3

These business solutions then need to be communicated, socialized, implemented and consumed by the organization to realize the benefit from data-driven decisions. While consumption of analytics will primarily be the responsibility of your organization, don't just look for partners who are good at the creation of analytics. Look also for partners who are able to translate across the business and math worlds and for partners who will help you derive value from the insights and outputs by enabling consumption. Drill down into case studies and engagements where the analytics partner demonstrated the ability to not only analytically solve the business problem but also enabled the right translation and consumption.

5. Integrated ecosystem

Today there is a lot of focus on having data scientists that can combine applied math and computer science skills to address complex business problems. However, having data scientists is just one part of the equation. As previously noted, decision science requires an interdisciplinary approach that combines business, math, technology, design thinking and behavioral sciences. Institutionalizing decision sciences requires a complete ecosystem where people, processes, tools, reusable intellectual property and asset solutions come together as bionics helping convert data scientists into decision science professionals. This ultimately provides the foundation for institutionalizing decision support via analytics. This integrated decision support ecosystem should support the creation of a better art for problem-solving rather than be designed to only solve specific problems.

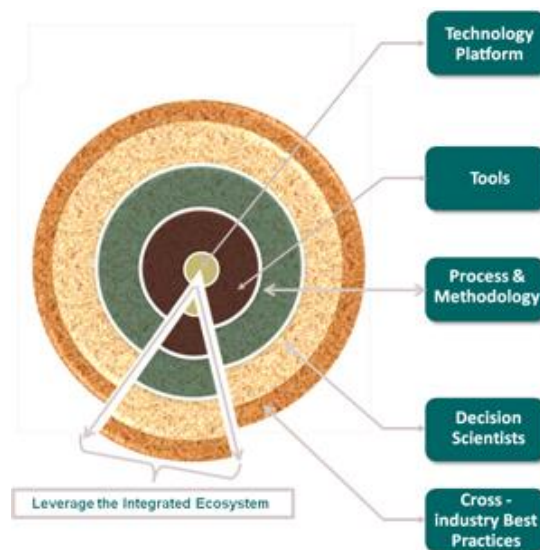


Figure 4

Ask yourself these questions when you're evaluating a partner: Does the partner have frameworks for structured problem definition, analytical maturity assessment analytical process guides and Q&A processes designed for analytics? Has the company developed tools for productivity improvement, knowledge management and infrastructure for supporting analytics delivery? Has the partner invested in developing assets that address both the art of problem-solving as well as address specific problems?

Obtaining answers to these questions will put you one step closer to identifying the analytics partner that fits your business needs.

6. White-box and collaborative approach

Since analytics is a journey it is very important to have a collaborative approach with the partner. The partner should have a white-box engagement model in which every part of the analytical process (problem definition, solution design and insight generation steps) is transparent, and the organization has the ability to participate, audit and enhance the process. Building trust behooves the partner to leverage the relevant business context and share the key assumptions with relevant stakeholders.

A white-box approach is critical to ensuring the consumption of analytics as the ability to explain the methodology, assumptions and insights will lead to better buy-in. Organizations should be cautious of companies that offer a black-box approach, as it is unlikely that you will be able to translate or leverage that work effectively in ensuring consumption and implementation of the insights.

7. Sustainability

Analytics is an ongoing initiative rather than a one-time project or a set of projects. One of the barriers to the institutionalization of analytics in organizations has been the supply shortage and the consequent high cost of partnering. Sustainability requires the ability to scale to the volume demand of analytics in your organization in a cost-effective manner. To ensure this, organizations should look for partners that have optimized their operating and models to be sustainable partners of analytics.

Look for partners that have applied levers such as global delivery, use of “assetized” platforms and ongoing engagement models rather than short-term, project-based engagements. Further, in today’s environment partners that can scale well are those that are able to create their own talent rather than depend on talent acquisition. When evaluating analytics partners, pay special attention to the recruitment, training and talent management activities that helps create analytics professionals.

8. Convergence via cross-industry experience

Many organizations prefer to choose partners who have deep expertise in their own industry or with their set of problems. However, it is important to look for cross-industry and cross-domain experience. In a world of continuous business transformation and blurring of value-chain boundaries, organizations can learn more from best practices from across domains and industries rather than from the same industry.

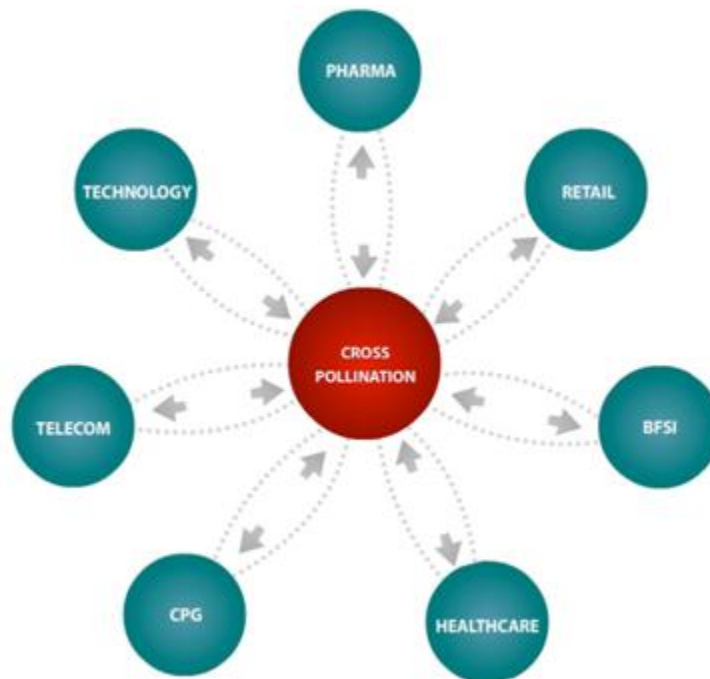


Figure 5

In an era where the next big idea is increasingly becoming harder to come by one of the ways companies are tackling this is to learn how other industries are solving critical business challenges. For example, online advertising networks learn how to manage ad space by learning how airlines manage seats, and health care organizations could become more efficient by learning from the assembly chain. In addition, studies have shown that creativity thrives in conditions where there is a constant exchange of ideas and concepts. To generate creative ideas as well as bring in learning and cross-pollination from other industries, it is very important for the partner to have solved a variety of problems across several industries.

9. Scale

By scale we mean the sheer breadth and depth of business problems that the partner has solved in its experience. In a field like analytics and decision sciences scale has immense learning benefits. The more problems the partner has solved, the better it gets at the art of problem-solving and the better it will be able to help you with your current and emerging needs.

Organizations should look for partners that have achieved scale not only from a particular domain and industry, but also from working with a diverse client base solving a variety of business problems.

10. Applied research and innovation

The field of decision sciences and analytics is evolving in real-time. Data explosion has allowed for the emergence of new techniques, technologies and applications that can expand the breadth and depth of analytics across the enterprise. A partner that is constantly researching these new developments and can offer solutions for new technologies, techniques and applications is invaluable.

Innovation is no longer the result of one big idea but the coming together of a combination of changes that lead to disproportionate returns. A partner that can help generate ideas and provide the ability of low cost experimentation in a fail fast mode will help accelerate the innovation cycle.

Analytics is a key differentiator for companies that seek to be more competitive in the new reality of fast changing business and an economy that looks for cost efficiency. The choice of an appropriate decision sciences and analytics partner is a very important part of making analytics work. Seriously considering the points mentioned in this article will help you maximize the chance for success as you take this important decision.