



By Chris Caplice

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What Makes an Effective Analytics Group?

If you don't have one already, there is a fair chance that an analytics group (AG) will become part of your supply chain organization at some point soon. This type of resource is attracting more interest partly in response to the increasing complexity and strategic importance of supply chains. Other drivers are the growing volume of market data that companies need to interpret and the availability of more sophisticated analytical tools.

One can think of this development as the next logical step after the arrival of technologies such as RFID that capture movement and other types of data for shipments and inventory. Where there was once a paucity of data there is now an overabundance. Companies now need to make sense of the mountains of data that these sources now generate.

The emergence of specialist analytical teams represents yet another challenge for talent managers. The role of AGs is still evolving in many companies and across the supply chain community. So determining the mix of skills and professional experience they need is a challenge.

Thirteen companies from various industries explored these issues during a recent roundtable at the MIT Center for Transportation & Logistics. Some organizations had well-established AGs while others were in the process of developing them. The discussions, along with an informal survey of roundtable invitees, yielded valuable insights into how companies can develop an analytics resource.

Defining the Workload

Supply chain analytics groups come in many shapes and sizes. But in general they provide key problem-solving support for supply chain management—and in many cases, other functions such as finance and marketing.

Three broad categories of work come under the analytics umbrella:

- **Reporting.** Including basic reports, studies, and dashboards from multiple data sources.

- **Business Analysis.** Delivering business insights to various stakeholders, as well as ad hoc reports and analysis.

- **Decision Support.** Using operations research, statistical, and other math-based methodologies, as well as specially developed tools to support decision making on various levels.

Firms seem to differ widely in the amount of work conducted in each of these categories. Personnel requirements differ dramatically for each type of work as well. Specific classes of work identified by our roundtable participants included analyses related to strategy, acquisitions and surge capacity, developing models for sourcing and forecasting, flow path optimization, and managing long-term strategic projects.

The level of support offered by these groups reflects the needs of each organization. A global equipment manufacturer, for example, uses its analyst group to supply competitive intelligence. One of the team's tasks is to investigate the veracity of competitors' customer service claims. The analytics team at a transportation service provider supplies strategic advice. So when a customer wanted to ship food products on a certain route, the AG analyzed the business case for the proposal and concluded that the new route was no better for the customer from a competitive standpoint than the existing arrangement.

Some companies see the AG's role as being "an honest broker" that separates fact from fiction. This is becoming increasingly important as supply chain decisions become more complex and involve a wider range of stakeholders. One AG head noted that his group's main objective is to "keep the stupid" out of the organization by analyzing and demonstrating the potential detrimental impact of proposed initiatives and projects. Keeping a bad initiative out is just as—if not more—important as introducing a new one and yet it rarely shows up in annual reviews.

The Skills Required

Given the wide-ranging role of AGs, what skills do these groups require? Roundtable participants addressed this question on two fronts: from a general perspective and in terms of the specific types of qualifications and mix of skills needed. What follows are some general observations.

Fluency in the language of business. Crunching the numbers is only part of the job. The team must be able to translate detailed analyses into business needs and communicate these insights to non-technical executives. The ability to communicate cross-functionally also helps. "Can you help people to shift from anecdote to data," suggested one AG leader.

Ability to sell. Although the AG's chief role is to provide analytical support, in order to function effectively it needs to be able to "sell" its services to internal clients, particularly when dealing with overseas offices. That requires sales skills, and an ability to engender trust and build credibility. Shortcomings in these latter areas can make it tough to become the go-to resource for analytical projects, and to carry out meaningful research. "Sometimes we have to do a lot of work to get people to talk to us," said an AG leader.

Know how questions should be asked. The analytical process can be greatly streamlined if clients are able to ask the right questions. AGs should train clients to avoid research proposals that are ambiguous and/or address the wrong issues. To do this, they need communications skills, a sense of the business context of proposed research questions, and the ability to view a problem through the client's eyes.

Know how to frame responses. "Don't give static answers," advised one AG leader. Reporting that the answer to a research question is, say, a single number invites skepticism. It's better to give sliding scale type answers so that clients can consider different options and test them against their own knowledge and assumptions. Also, "create summary reports that are drillable," advised an AG manager; clients should be able to mine the information for fresh insights.

Know how to say no. This can be tricky in any business activity, but in an analytics context it is a critical skill. An AG practitioner described the following scenario: A VP gets promoted to Senior VP and decides to exercise his new-found power to explore questions he could not get answered as a more junior executive because the concepts are too vague or off target. Making it appear that the client himself or herself helped to arrive at a "no" is one way to approach the problem.

A key question for any organization that wants an effective analytics group is: What is the optimum balance of expertise for the team? Obviously this will vary depending on the group's role—particularly in relation to the mix

of business and supply chain-oriented projects—and its status within the organization. Overall, a blend of technical, operational, and general business skills is needed.

A manufacturer in the healthcare industry has an AG team with five members: four people with MBAs and a more junior data analyst. The four business types have experience in consulting and do their own number crunching, while the analyst handles heavy-duty math problems in areas such as data min-

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ing. An eight-person AG team in an electronics manufacturer includes one person with an MBA, a computer specialist, and folks with a mix of math and operations research skills.

The Retention Issue

Keeping these talented individuals engaged is a top priority. Avoid the pitfall of stretching the team with an intellectually challenging assignment, only to lose members when the interesting work dries up once the project is complete. Providing stimulating projects can be an ongoing challenge. A medical industry manufacturer has set some clear cost savings goals for its AG team. But the company is aware that if the work required to hit these goals is too tactical, some of its AG specialists might start looking elsewhere for more strategic challenges.

Some companies take pains to vary the workload in terms of the emphasis on analysis and implementation, subject matter, and scope. Part of the motivation at a leading retailer is to push its team to increase the number of projects that are actually implemented. Another strategy is to encourage the group to be innovative; one company allocates 10 percent of team members' time to innovation.

It is difficult to find individuals with the right mix of technical and business skills. And the competition for these professionals comes not only from other organizations, but from within. "If you have been in this job five years and not had an offer of a job internally, something is wrong," commented a senior AG person.

This is good news for personnel. The demand for analytics expertise is likely to increase, and individuals who can offer solid experience in business consulting, analysis, and operations, have abundant employment options. Moreover, the skills gained as a member of an AG will enhance your career prospects. And those managers who can effectively create, retain, and motivate the diverse set of people who make up an AG will also be in demand.