Organizing analytics
Building an analytical ecosystem for today, tomorrow, and beyond

Written by
Jane Griffin, Principal, Deloitte Consulting LLP and
Tom Davenport, Senior Advisor, Deloitte Analytics

Introduction

Analytics are hot. There is really no debate anymore on whether or not to add analytics to the information technology (IT) and business activities within an organization. Instead, the debate centers on how to make the best use out of the myriad of analytical opportunities that are out there. Whether a company is seeking to "compete on analytics" or simply to use analytics to make better, more informed decisions and bolster its competitive market position, it will need an analytics organization that is staffed with appropriate tools, a good mix of skilled analysts, and an implementation strategy that is "right" for the particular organizational culture. There is no one "correct" way to build an analytics organization. In fact, there are many alternatives for building an analytics organization that is the right fit for the business it serves. Each model has strengths and weaknesses.
However, there are key similarities for each model as well. The leadership role for the analytics function plays a critical part. Reporting structure is also important, as is the formation of external alliances to create an "analytical ecosystem." Finally, it's also important to remember that, no matter the model, the analytical organization structure will change over time, and, therefore, it's necessary to implement any analytics organization with an eye toward the future.

Goals of an analytics organization

In any analytics organization, there is a set of overriding goals that are typically set as benchmarks for success. These goals include:

- Supporting business decision makers with analytical capabilities
- Providing leadership and a "critical mass" home for analytical people, and the ability to easily share ideas and collaborate on projects across analysts
- Fostering visibility for analytics throughout the organization and ease in finding help with analytical problems and decisions
- Creating standardized methodological approaches, tools, and processes
- Researching and adopting new analytical practices
- Reducing the cost to deliver analytical outcomes
- Building and monitoring analytical capabilities and experience

Different priorities for these goals may lead to different organizational models. For example, the goal of supporting business decision makers with analytics may be better served by locating analysts directly in business units and functions that those decision makers lead. However, this decentralized structure may work against the goal of giving analysts the ability to easily share ideas and collaborate.

Also, no set of organizational structures and processes is perfect or permanent, so organizations must decide what particular goals are most important to their business and which are most important to their analytics needs. Corporate leadership must be willing to change the analytics model if it's necessary to continue meeting the needs of the business.

For example, if a company has implemented a centralized analytics organization, but that organization has become unresponsive to the needs of the business, it may be time to rethink the model and establish a more decentralized model that promotes stronger ties between business units and leaders. Conversely, a company with highly localized analytics may need to switch, at least for a while, to a more centralized structure. The key is to keep the organization flexible enough to meet changing needs and expectations.

Alternatives for analytical organization structures

Though all businesses are different, with different needs and expectations, most of them tend to use one of five common models to structure their analytics capabilities. Each of these models has strengths and weaknesses in particular settings, and as we've discussed, the model may need to change over time to meet business needs. The particular model is not as important as how well it's implemented.

The centralized model

Some companies choose to implement a totally *centralized analytics model,* in which a group of analysts, acting as a core unit (perhaps elevated to a business function), serve the entire company. Companies that are large, single-business organizations with a high need for analytics applications that cross functional boundaries tend to be the ones that implement this type of model. The analytics function may report to IT, strategy, or a corporate services function.

The strengths of this model — which is growing in popularity — include the ability to work on cross-functional projects, to share ideas easily across analysts, and to assign analysts to problems and projects efficiently out of a central pool. Another advantage of the centralized model is that if a central group is given long-term funding, it often leads to a high level of security and dependability for the company long-term.

The downside of a fully centralized model is the potential to become unresponsive to the needs of the business due to workload and time constraints. Therefore, it's crucial to have mechanisms in place to ensure that the analytics organization is meeting the needs of the business.

The consulting model

A variation on the *centralized model* is the consulting model, in which analysts are centralized, but are assigned to work on projects throughout the organization, and are expected to recover their costs by charging for their time. One strength of this model is that this "chargeback process" does help the C-suite see the value of the analytics organization to the business because analytical functions — down to the project level — can be tracked and reported on.

However, this model has a glaring weakness. It's that oft-quoted perversion of the golden rule — "he who has the gold rules." With the consulting model, the analytics organization may be pressured to follow the money and thus may not work on the company's most strategic analytical problems due to funding constraints — just because a business unit or function can pay for analytical services doesn't mean their problem is important.

The center of expertise model

A somewhat less centralized approach is the *center of expertise (CoE) model.* In this model, analysts are based primarily in business functions and units, but their activities are coordinated by a small centralized group. The CoEs typically remain responsible for issues, such as training, adoption of analytical tools, innovation, and facilitating communication among analysts. This model is probably most appropriate for large, diverse businesses with a variety of analytical needs and issues because it mirrors the organization structure of these companies. The strength of this model is that it keeps training and coordination functions centralized while putting analysts in direct contact with the business units they serve.

However, a potential weakness of this model is that the CoE may not have enough control over decentralized analytics staff to be able to truly oversee and coordinate their work and ensure its effectiveness.

The functional model

The *functional model* places analysts primarily within the specific function — or functions — that dominate analytical activity within a company. For example, if finance is the dominant function, the analytics capabilities will be centered within the finance function. Alternatively, if almost all the analytical work supports marketing, most analysts will be located within that function.

The upside of this model is that analytics activities are concentrated where they are thought to be most needed — and therefore of most value to the business. Their value can thus be directly traced. The downside is that this model may limit the ability to expand analytical work to other functions that could benefit from it as well, leaving those functions without much analytics support, thus potentially harming their performance.

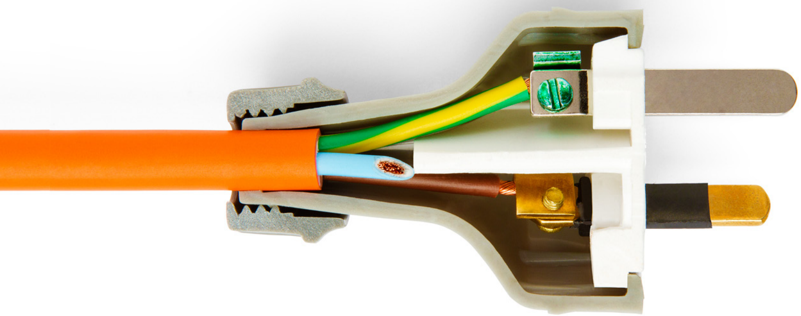
The dispersed model

Finally, there is the fully *dispersed model*, in which analysts are spread throughout an organization with no mechanisms in place that facilitate collaboration or coordination on an enterprise level. This "model" is not really a model; it's usually the result of multiple and uncoordinated efforts to implement analytics without any formally defined effort. While many of the other models have some rational justification, this one is difficult to defend. It usually means that the senior management of the organization doesn't recognize the importance of analytics and that small groups of analysts have been allowed to proliferate without any coordination or collaboration.

The advantage of such dispersed analytics efforts is that the different business functions and units get what they *think* they need in terms of analytics capabilities. However, this model is not suited for enterprise applications of analytics because there is simply no coordination of analytics power or capabilities that can be brought to bear in solving enterprise problems or meeting enterprise goals.

Assessing and tweaking the models

Regardless of the analytics organization model a company chooses to implement, it's necessary to keep in mind that the model will most likely need to be modified or improved upon at a future time, either temporarily or permanently. For example, organizations with a centralized model can assign analysts to work with particular business unit leaders and can also assess them on the basis of their contribution to the business to which they have been assigned. Therefore, it's essential to reexamine, on a regular basis, how well the chosen model is meeting the needs of the business and make changes accordingly.



Analytics leadership and the emergence of the chief analytics officer

Once the analytics organization model is chosen, the next key task is to choose a leadership strategy for the analytics organization. Some companies choose to have the finance function lead the analytics effort; some choose IT. Still yet, some forward-thinking companies are realizing the value of analytics to the enterprise and elevating the leadership of the analytics organization to the C-suite. These companies have created the position of Chief Analytics Officer (CAO).

While there are few official CAOs thus far, more will emerge. The role may not always have that title, but there is a need — at least for each of the three centrally coordinated models described above — for someone to lead the analytics organization. The CAO could be either a permanent role or a transitional role for a company that needs to improve its analytical capabilities and requires strong leadership to do so.

The roles of a CAO could include any or all of the following activities:

- Mobilizing the needed data, people, and systems to make analytics succeed within an organization
- Working closely with executives to inject analytics into company strategies and important decisions
- Supervising the activities and careers of analysts
- Consulting with business functions and units on how to take advantage of analytics in their business processes
- Surveying and contracting with external providers of analytical capabilities

One key issue for the CAO role is whether analysts across the organization should report to the CAO. While an indirect reporting relationship (as one dimension of a matrixed organization) may be feasible, a CAO without any direct or indirect reports seems unlikely to be effective.

For example, the CEO could be passionate about the role of analytics and name a CAO as a direct report. If the CAO has only a couple of staff and other analysts don't report directly to the CAO, the CAO may not have the ability to effectively carry out his or her objectives. This could lead to a failure of the CAO role. The alternative is to give the CAO control of — and responsibility for — the analytics function, whether or not the analysts are centralized or mostly dispersed. This model is like a contractor model; the contractors may work with the clients, but they are still ultimately controlled by, and responsible to, their own leadership.

The “home” for the analytics organization

Centralized analytics organizations can report to a variety of different functions in the organization. There is no ideal reporting relationship; each one has its strengths and weaknesses. Alternative functional reporting relationships include IT, strategy, shared services, finance, or marketing.

Information technology

Some organizations build out analytical capabilities within the IT organization or transfer them into IT. There are several reasons why this reporting relationship makes sense:

- Analytics are heavily dependent upon both data and software and experience on both of these is most likely to reside in an IT function
- The IT function is used to serving a wide variety of organizational functions and business units
- Analytics are closely aligned with some other typical IT functions, e.g., business intelligence and data warehousing

Of course, there are some disadvantages as well. The IT function is sometimes slow to deliver analytical capabilities and may have a poor reputation as a result. They may also overemphasize the technical components of analytics and not focus sufficiently on business, organization, behavior, skill, and cultural issues. In principle, however, there is no reason why IT organizations cannot overcome these problems.

Corporate strategy

Some companies choose to have their analytics organization report to the corporate strategy function. This relationship allows analysts to become privy to the key strategic initiatives and objectives of the organization. Another virtue of this structure is that strategy groups are often staffed by analytically focused people who may understand and appreciate analytical work, even if they cannot perform it themselves.

There are two possible downsides to this reporting relationship. The first is that strategy groups may not be able to fully understand the technical and data resources to make analytical projects succeed. The second is that strategy groups are usually relatively small and they may not be able to marshal the resources needed to help analytics efforts succeed.

Shared services

In companies that have a shared administrative services function, the analytics organization can simply be absorbed by that group. The primary benefit of this relationship is that analysts can serve anyone in the company as long as the appropriate charging and resource allocation mechanisms are put in place . The downside is that analytics may be viewed as a low-value, non strategic resource like some other shared service functions. However, as long as corporate leadership champions the analytics organization and continually communicates the value of analytics to the enterprise, this problem can usually be avoided.

Finance

Since it is inherently a numbers-focused function, finance has the potential to be a good home for the analytics organization, with the CFO being responsible for analytics. The obvious virtue of this arrangement would be the ability to focus analytics efforts on the issues that matter most to business performance, including enterprise performance management itself. For some reason, however, many CFOs have not embraced analytics, and the finance function remains an uncommon, if logical, home for analytical groups. This is slowly changing, though, and the finance function is beginning to play a much stronger role in championing analytical projects and perspectives. For example, one company that was one of the first to compete on its analytical capabilities recently pulled its analysts into a central group and decided to have it report into finance.

Marketing or “other”

As noted above, if an organization’s primary analytical activities are concentrated within marketing or some other specific function, it might make sense to incorporate the analytical organization within that function. The resulting structure would allow a close focus on the analytics applications and issues in the functional area. However, it would obviously also make it more difficult for analytical initiatives outside those functional areas to be pursued, thus perhaps diminishing the value of analytics to the enterprise as a whole.

Building an analytical ecosystem

Aside from developing, organizing, and finding a home for analytics capabilities, there is a broad set of other considerations in implementing an enterprise analytics effort. Perhaps the foremost non-technical consideration in implementing analytics is to understand and nourish the enterprise analytical ecosystem.

The analytical ecosystem includes providers of services and information, such as consultants, IT (primarily software) vendors, offshore analytical outsourcers, data providers, and others whose assistance is absolutely critical to the effective implementation and continuation of analytics activities. Some of these ecosystem resources might deliver general analytics help across industries, but in almost every industry, there are also specialized analytics and data providers. Each is just as important as the other in helping the analytics organization grow and thrive.

One key in constructing a thriving analytical ecosystem is not to let it grow at random but to identify the analytical capabilities the organization needs overall, then decide whether internal or external capabilities are most appropriate to fill a specific need. In general, external capabilities make sense when the need is highly specialized, not likely to be needed frequently, and not critical to the organization's ongoing analytical capabilities.

For example, an organization might have a well-developed internal analytics capability with a large group of internal analysts, but their capabilities might be supplemented by outside help when necessary. The internal group might also work with specialized consultants on an as-needed basis when their experience is not sufficient to solve a particular problem. Software vendors might also consult on analytical methods and techniques. Finally, the internal group might farm out its more routine tasks to an offshore analytics vendor to reduce costs and let the internal analysts focus on more pressing problems.

Developing the analytical organization over time

Going forward, it's important to remember that nothing worthwhile is built quickly. Analytics organizations are no different. The analytics organization should develop and evolve over time, both philosophically and structurally. An internal structure and ecosystem that makes sense at the beginning of developing analytical capabilities might become obsolete later on. For example, it may be very reasonable to have a highly decentralized organizational model early on, but most organizations create mechanisms for coordination and collaboration around analytics as they mature in their analytical capability and needs. It may also make sense to "borrow" a number of external resources in an organization's early stages of analytical maturity before making the commitment to build internal capabilities.

Therefore, it's crucial to have a road map for analytics implementation that includes an assessment of current needs and capabilities, as well as a projection of future needs and a plan to address those needs. Admittedly, in the early stages, there may not be anyone with the formal authority to even create such a road map. However, if it appears that analytics are going to be key to an organization's future, it may make sense for a small group of analysts to get together and create at least an informal road map. It will most likely be necessary, however, to formalize the road map at some point to realize continued benefits from analytics efforts.

For example, an organization might have many analysts dispersed throughout the enterprise, but those analysts might not be providing the value of which they are capable. To solve the problem, the CEO or some other interested senior executive might meet with the heads of the diverse analytics and reporting groups and ask one of them to take the lead in assessing and solving the problem.

Analytics road maps should probably be revised every year or so, or with major changes in the demand or supply around analytics. There are usually clear signs that the current model has become dysfunctional. Going forward, it will be critical for someone to assume responsibility — either informally or formally — for assessing the organization of analytical resources and for creating a more effective model.

No plan or organizational structure is perfect — even for a given time and situation — and every structure, if taken beyond its limits, will become a limitation. The leaders of contemporary organizations will need to become conversant with their analytical capabilities and how they are organized. Most importantly, they will need to realize when their current organizational approach no longer functions effectively and needs to be restructured. With a little planning and forethought, and a lot of hard work and perseverance, most organizations will be able to reap the tremendous value and benefits of analytics.

For more information, please contact:

Jane Griffin, Principal
Deloitte Consulting LLP
Atlanta, Georgia
Tel: +1 404 631 2506
E-mail: janegriffin@deloitte.com

Tom Davenport
Senior Advisor, Deloitte Analytics
President's Distinguished Professor of IT and Management
Babson College
+1 781 775 1001

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