# Managing the parking lot! Must-haves and good-to-haves for a highly effective analytics team

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## ABSTRACT

Every organization—from the most mature, old-line company to a day-one startup—needs to grow organically. A deep understanding of internal customer and operational data is the single biggest catalyst to develop and sustain it. Advanced analytics and big data directly feed into this, and there are best practices that any organization (across the entire growth curve) can adopt to drive success.

Analytics teams can be drivers of growth. But to be truly effective, key best practices need to be implemented. These practices include in-the-weeds details, like the approach to data hygiene, as well as strategic practices like team structure and model governance.  When executed poorly, business leadership and the analytics team are unable to communicate with each other—they talk past each other and don't work together toward a common goal.  When executed well, the analytics team is part of the business solution, aligned with the needs of business decision makers, and can drive the organization forward.

Through our engagements, we have discovered best practices in three key areas. All three are critical to analytics team effectiveness. They are the:

- Right data – Data hygiene
- Right methodology – Complex statistical modeling and
- Right team collaboration – Data governance/change control process

## INTRODUCTION

Analytics teams can help promote growth for any organization, by putting customer and operational data to fruitful use. To be truly effective, however, these teams need to adopt best practices at every level, from their approach to basic data hygiene to strategic issues such as team structure and model governance.  Otherwise, the analytics team risks having poor relationships with the business leaders; the two groups will talk past each other and fail to work together effectively.

It's useful to group best practices in three areas:  Analytics teams need to have the right data, the right methodology and the right team collaboration model. Each area is essential to success, and while we have seen many of our clients get the first two areas right, they often fall short on the third, leading to suboptimal results. Let's review each of these three areas in turn.

## THE RIGHT DATA

**The right data—data hygiene**. Any analysis is only as good as the quality of the data going in, so proper data hygiene is essential. Here are a few simple rules to guide the organization:

- Assemble a comprehensive data dictionary and documentation to map and understand the process flows.
- Document the assumptions and techniques used to build a master data set.
- Ensure that the organization has the right variables available. Data must align with key business performance metrics, and should allow executives to answer pressing business questions.
- Keep data current, by measuring and refreshing it at appropriate times.

## THE RIGHT METHODOLOGY

**The right methodology—complex statistical modelling**. Identifying the right methodology for the right data for a business need is the core of any analytical team.  And these three things must work together: The methods used must be appropriate for the data.  The result must answer the business question.  And

the data has to be the right data to enable the model to uncover the relationships, if they exist.

- Build a data architecture that can be easily scaled up.
- Because one size does not fit all, revisit model architecture based on changing patterns in the data.
- Build the model with appropriate accuracy and precision for the desired business outcome.  Don't overinvest in precision if it's not required to make a business decision, and be willing to risk an occasional false positive or negative in order to run more models and address more issues.
- Emphasize testing and validation to assess the models and track performance.

## THE RIGHT TEAM COLLABORATION

**The right collaboration model—data governance and the change control process**. This requires an overarching set of protocols and norms for "how we work." Each team needs to have a structure for how requests are received, how they are prioritized, how work is allocated among the team, how to communicate progress and set expectations, and how results are presented back to the business.

- Encourage strong collaboration among the data center, advanced analytics teams and business stakeholders to determine priorities and objectives.
- Require the analytics team to collaborate with IT and direct points of contact to ensure seamless integration.
- Build the right forums for model decision rights and develop processes to build trust across different business departments.
- Increase transparency through the model process to improve results and drive acceptance and adoption.
- Create an effective change management process. Build distribution lists to explain the business impact of model changes to avoid ad hoc requests for information.

Each "right" plays a very important role in building a successful and effective story for analytical teams in every organization. With a solid list of must-haves in hand, we can now stitch in some of the best practices of good-to-haves. The objective is to keep advanced analytics close to stakeholders and the groups that their analysis will impact in order to maintain transparency, accountability and business-driven decision making.

## GOOD-TO-HAVES IN ALL AREAS

For any analysis to be actionable, there need to be a few simple rules to guide the organization:

- Communicate any limitations of the model architecture and IT/data systems, selecting predictive variables based on action ability and business relevance.
- Build models on the available data, avoiding assumptions where possible and documenting all instances where assumptions are required.
- Do not let "perfect" be the enemy of "good." Build a model that is actionable, operational and nimble; strive for the simple solution that is internally coherent and business-oriented.
- Remember garbage in is garbage out.  Conducting monthly data refreshes, using the QA process developed, is critical to establishing model accuracy.  Slippage here can reduce team credibility.
- Ensure all changes to the model ecosystem are first vetted by the change management or steering committee. This helps ensure a stable production model at all times as well as a clear record of all changes.
- Build error checks into each stage of the model build process and matrix development process; mistakes lead to a loss of trust and credibility that is hard to regain.
- Document everything—from data dictionaries to model summaries.  Codification also makes it easier to train new members, answer stakeholder questions and explain model outcomes.
- Provide opportunities for junior advanced analytics team members to engage with the steering committee on decisions and improvements. This type of engagement also helps build skills and confidence.
- Ensure that ROI drives model priorities, not intellectual interest or statistical complexity.

- Remember that proactive communication is key.  To that end, build distribution lists to explain the business impact of model changes and head off ad hoc requests for information. Tailor information to various stakeholder groups and ensure that they have a clear channel for questions and feedback.
- Manage the parking lot.  Steering committee meetings are important opportunities for advanced analytics teams to have a highly leveraged discussion with business stakeholders on model priorities, changes and outcomes. Do not let the meetings stray into unrelated topics, though.

## CONCLUSION

These guidelines do not, in themselves, guarantee success. Analytics teams will still need to excel in other dimensions. For example, they can raise their level of accountability through a detailed work plan that adjusts as priorities change or new requests emerge. They should socialize the model structure with others in the organization. And they should proactively explain the effect of model changes on business outcomes. Yet with a solid foundation in data, methodology and collaboration, analytics teams will be well-prepared to advance the cause of strong, data-driven decision making.

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