



5 Best Practices

for Successful Data Analytics Projects

The importance of data and data analysis has become clear in the modern digital economy. Today, organizations across a range of industries implement analytics projects to glean insights, make informed decisions, optimize operational performance and maximize profit.

Analytics projects can encompass many data types, techniques, tools and objectives. That said, there are common approaches that can be applied to any project to improve the chances of gaining meaningful results.

Over the past 16 years, GAP has worked with numerous enterprise clients on dozens of data analytics projects. Through these experiences, we have identified several best practices that can influence – and often guarantee – the success of such projects.

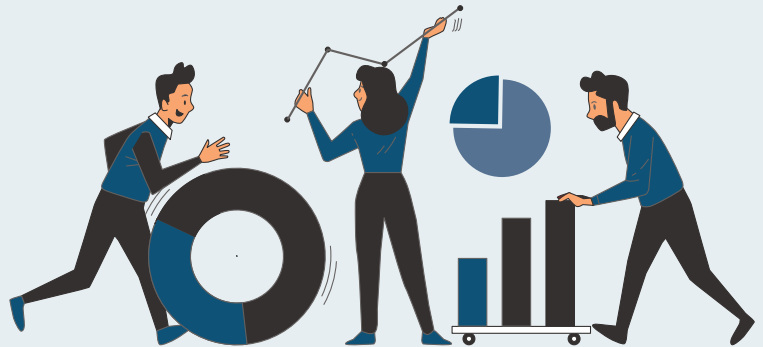
In this white paper, we discuss the processes that contribute to a successful data analytics project and ways to implement them in your own organization.

Best Practice #1: It Starts with Staffing

Many companies start an analytics project knowing what they want, but not understanding where to start. The fact is, you can't reach your goal unless you begin on a solid foundation. In an analytics project, this means putting the right talent in place.

Building an appropriately mixed team of data engineers, data scientists and data analysts allows a project to move forward efficiently.

Mistakenly using a data scientist to build infrastructure – or an engineer performing analytics tasks – are classic examples of creating unnecessary friction in a project that prevent team members from leveraging their core capabilities.



Staffing each position with the right personnel, and delineating well-defined pathways for them to achieve their goals, will keep your workers motivated and projects moving forward.

Best Practice #2: Understand What You're Getting Into Before You Get Into It



A common misconception with data-driven projects is that building models is the hard part. A machine learning model is a powerful tool that can open up new business possibilities, and provide valuable insights on the current state of affairs. Building these models can be challenging, especially for inexperienced in-house teams. However, with an iterative and non-siloed effort between subject matter experts and stakeholders, building models might be considered the easy part of a project.

What's harder is building a robust analytics product that becomes part of day-to-day operations. The most successful models have properly built infrastructure that integrates with the broader organization's data, people and processes. As your business requirements change, your data and infrastructure should be ready for it, so everything remains reliable and up to date.

A great project ensures its underlying tooling goes beyond the delivery of the model and can be maintained easily and used for future projects.



Best Practice #3: Think Long-Term

Your organization's business challenges and data requirements are likely to change. This is a given, considering the dynamic nature of the modern business landscape.

It is important to cut through the hype and make smart investments that are most likely to have a quantifiable and lasting impact. Many cutting-edge tools making the news may sound great for consumer use, but they have limited viability in an enterprise environment. Trending topics such as generative art or no-code tools may be great for individuals or even small companies, but their inability to be supported or version controlled across a broader organization create more problems than they solve.

Instead of building short-term prototypes with consumer-grade tools, it is important to think long-term, build scalable and future-ready tools, and staff accordingly. Data analytics projects are a long-term commitment that will generate positive ROI for years to come, and they should be approached as a long-term investment.

Best Practice #4: Create a Robust, Well-Organized Data Pipeline

The inability to build effective data pipelines can easily derail an analytics project. A well-organized data pipeline is required to ingest raw data from various sources and port it to a data store for analysis. A data pipeline is the heartbeat of a successful data analytics project

Many companies tell us they want to build a machine learning-based predictive engine or set up a next-generation data lake on a public cloud. Some of our first questions are, "What is your confidence in your data quality? How can it be consumed? Have you mapped out the solution's architecture?" We frequently get incomplete answers to these questions because creating a data pipeline is not a passive exercise. It is a concerted and deliberate effort requiring a dedicated team and budget. And while some companies may have mountains of available data, proper validation is still needed to ensure the consistency, accuracy and quality of data that will be used to make important business decisions.

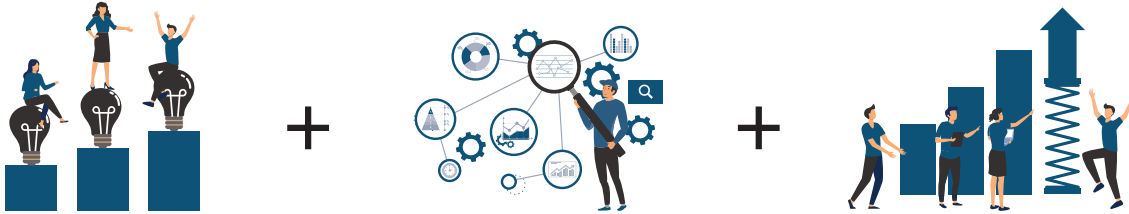
Implementing these vital building blocks before data modeling and the other steps of the project can begin is not only important, but the entire project depends on it.



Best Practice #5: Build a Data-Driven Culture

The right tools and technologies are vital to the success of any analytics project. But many organizations forget another critical success factor: people. It's critical to enlist the support of everyone who might be affected by the project.

To this end, it's useful to start with a proof of concept (PoC) that will demonstrate the project's value and get the attention and support of relevant stakeholders.



Another good practice is to build a center of excellence (CoE) to disseminate project information, train users, and establish or maintain the data governance structure.



When prioritized over time, these actions create a data-driven culture, where data is an organizational asset that extends beyond the priorities of the IT department. Every part of the organization uses and acts as a steward of data.

Analytics inform decisions and improve performance at every level of the business. A shared mentality exists throughout the organization – and is promoted by senior management – to readily protect, share, invest in and consume data assets.

- In a data-driven culture, data is consistent, readily available and easily accessible.
- It is standardized and validated so ambiguity, noise and complexity are minimized.
- Data is reproducible and insights are shareable to maximize the data's positive impact.

And all of this is done outside the scope of any particular project or team. Instead, it is a part of the organization's culture and represents an acknowledgment that data is a key to the organization's success.

GAP Ensures Successful Data Analytics Projects

Every data analytics project is different, but some universal approaches are more likely to contribute to a successful outcome.



If you're thinking about starting a data analytics project, keep these tips in mind as you begin planning. And if you need help getting started, GAP is here to lend a hand. With our experienced team of consultants, software developers and engineers, we can turn your data analytic goals into reality.

Our engineers and data scientists have decades of experience building analytics projects from the ground up – the right way – based on your vision, requirements and use cases. Most of our clients remain engaged with us for many years after the project is completed, working alongside internal teams to maintain, support and refine analytics efforts.

Let's Talk About Your Project

GAP helps augment your internal team by putting the right talent in the right roles and establishing proven processes. In addition to staff augmentation, we also assist with staff training and development in a cost-effective, low-friction manner.

Contact GAP today to discuss your needs and get started on your next project.

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