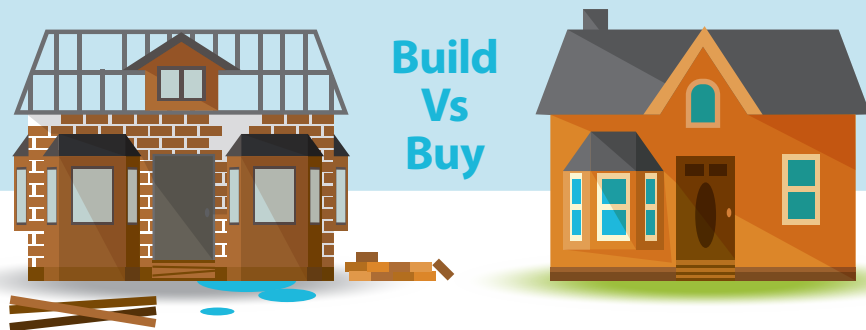




# Building Analytics vs. Buying an End-to-End Solution



## About CoolaData

CoolaData is an open, unified behavioral data service. Save time and money by not having to develop, store, manage or monitor data yourself. Ask any query on any dataset from multiple data sources. Behavioral analytics will reduce your churn and optimize acquisition, improve gamer loyalty or eCommerce channel effectiveness and enable an accurate, effective calculation of user lifetime value. CoolaData provides a full analytical stack at a fraction of the cost of developing similar capabilities in-house. CoolaData's customers are data-driven online and mobile companies, such as Fiverr, MySupermarket, FTBpro, Wix and Playbuzz.

For more about CoolaData go to [www.cooladata.com](http://www.cooladata.com).

## Introduction

The digital universe is doubling in size every two years and will reach 44 trillion gigabytes by the year 2020 ([IDC report](#)). This blue ocean of data makes more and more companies realize that a well-conceived analytics solution has to be weaved into the growth plan of every business. A recent [QuinStreet](#) survey conducted with 540 decision-makers involved in big data purchases, found that more than three-quarters of companies consider big data analytics a priority. It also found that 71% of mid-sized and large companies have plans for, or are currently involved with, big data initiatives ([QuinStreet Enterprise Research](#)). Yet, companies confront several challenges when it comes to implementing big data solution: costs, human resources, infrastructure scalability, integration and so forth. This white paper focuses on key considerations underlying the choice of an analytic solution, comparing the two main approaches: build, or buy.

## What it Takes to Develop Big Data Analytics

The first questions one asks oneself have to do with the main objectives and expectations from analytics. Study your use cases thoroughly and know what insights you wish to unearth with your data.

The essence of big data solutions is in collecting, storing and displaying information and insights. Each of these elements requires one or more specialties, not only for assembling the system, but also for its operation and maintenance. Unlike traditional BI systems, Big Data infrastructure is made of diverse technologies. There are scores of different technology products for each step, many of which are constantly evolving. Also, with regards to manpower, different skills sets are required and it is far from a “one-size-fits-all” environment. First, one or two specialists oversee data collection; next, data is integrated with data collecting applications; and finally, a high volume of data needs to get processed and validated.

The same is true for storage: a company that doesn’t possess specific knowledge in cloud construction for big data might be able to store information, but it lacks the know-how of handling data in the cloud. Equally important, the system has to support complex visualization which is more than basic reports, yet this visualization has to be clear and intuitive for business executives who aren’t analysts. One option is to rely on help from others, who are experienced knowledgeable and in possession of out-of-the-box solutions; the other is to re-invent the wheel all over again.

A high-quality outcome fulfills expectations and demands top notch data scientists, hundreds of thousands of dollars (depending on the amount of data), time and a commitment to the project. Otherwise, it is doomed to fail.

## Decision Making Criteria

First and foremost, ask yourself whether analytics is your company's core business, or a means to an end. The amount of resources invested in terms of time, money and personnel will depend on the answer to this key question.

Another criteria that weighs in has to do with the organization's culture. Some companies have the NIH (Not Invented Here) syndrome. Is yours the type that has to make everything from scratch, in its own way, or are you ready to implement another company's journey of trial and error?

Let's scrutinize the two options of build and buy

## Build

### Advantages

The indisputable advantage of building a solution is that it can fit very particular, customized needs. You know your product best - its strengths and weaknesses, needs, customers, assets and problems - and so you can tailor-make exactly according to your requirements. This means saving on unnecessary addendums, while not stay short of required functionality. Having a custom-made solution means getting to pick and choose tools, queries and experts on each and every step of the way.

### Disadvantages

The main disadvantage which encompasses many other shortcomings of building a bespoke analytics solution is in a defocus from core business strategies. We've already mentioned that implementing a big data solution is a complex procedure, which requires software engineers who know Big Data. It's an expensive and quite a rare resource. Most systems require several people (from different disciplines) to develop and the annual maintenance embodies about 60-70% of the total headcount. This results in any company investing massive IT and R&D time in data management, instead of producing core value to its original product.

At first, building from scratch may seem less expensive, as there is no initial large payment. But more often than not, these savings eventually turn to be the more **expensive** option in the long run. Company funds shift to in-house and outsourced personnel, as well as to major investments in equipment and infrastructure. Not to mention money lost due to unavoidable trial-and-error processes, which are a byproduct of this being a unique solution, designed and performed for the very first time.

**Trial-and-error**, which is one of the main problems of a DIY (Do It Yourself) strategy, is inevitable. Analytics not being a core competence entail a long learning curve, including research, choosing and assimilating tools and eventually implementing a solution – in short, investing time and money in options that others, more qualified in the domain, are already aware of.

An internal process of understanding objectives and learning use cases is crucial in order to extract the most out of an analytical solution. Now, let's look at the time aspect. **Time to market** in the case of building a DIY solution is significantly longer and takes 12-18 months more than buying one. This time gap might be critical to the success of a business, as delays in implementing the analytics solution inevitably delay implementing policy, conclusions and insights from the analysis. Furthermore, this is time not invested in your core product, the *raison d'être* of your company.

Another problem with "build" is that once a solution is up and running, **changes** are difficult to apply. A constant growth in data dictates that scalability, new features and upgrades be basic requirements.

The biggest disadvantage however, according to Gartner, is that more than half of all analytics projects **fail** because they aren't completed within budget or on schedule, or because they fail to deliver the features and benefits that are optimistically agreed on at their outset ([here](#)). DIY no doubt increases this risk drastically.

## Buy

### Disadvantages

Unsurprisingly, the main disadvantage of the "buy" alternative is in it not being tailor-made. Still, working with the right vendor, one that is flexible and offers open tools like elaborate queries or an open database, should overcome this obstacle substantially.

Another thing which might be a problem with buying, particularly in an early stage, is an initial, large upfront fee. It is important to keep in mind the overall investment and its impact on costs in the long run.

### Advantages

Perhaps the foremost benefit of buying is in a company's ability to stay focused on its core business. Buying a solution allows you to rely on professionals to do what they know best - analytics. Somebody has already done all the thinking for you: the analytical roadmap exist, there are samples, documentation and people to consult with. Implementation takes a matter of days and doesn't require the same attention, time and human resources the platform originally required.

While time to market is a major disadvantage of the DIY approach, it is obviously a main gain of buying. True, the process of understanding your needs is the same and you still have to choose and compare different vendors. But finding an analytics provider is a onetime event, and spares customers the audit of every tool separately. Implementing the system is a matter of days, so all in all the time to market is usually 6 months, compared to 18-24 months for DIY.

An analytics solutions provider is at the forefront of technology. The benefits of working with experts continue to create added value, long after the system's set up. Specializing in big data and analytics delivers advanced features such as working in real-time as well as batches, fine grained analysis and the enrichment of data, providing viable metrics such as Lifetime Value (LTV) and churn.

“Buying” provides an end-to-end solution which ensures that all parts of the platform interact seamlessly. Instead of patching up the way to answers and figures, the analytics provider collects, stores, manages and displays data with the appropriate tools that have already been proven to be effective on others.

“Buying” offers the option of out-of-the-box solutions. Many of the challenges have already been met with the optimized solutions. All you need to do is implement them.

Elasticity and Scalability is another concern that an analytical solution provider is accustomed to managing. With an increasingly growing user base and billions of events, there should be no memory or processing constraints. The right solution is automatically scalable.

An analytics solution provider will constantly evolve, ensuring scalability and staying abreast with rapid changes in the industry. After all, analytics is its core business.

## Conclusion

An analytics solution is not just another project in your business. It should be treated as a constantly evolving strategy, one that has a critical role in determining goals as well as tactical and operational decisions. Many solutions are built in-house, dealing with incorrect data, providing inadequate performance and suffering from unfriendly user interfaces. These outcomes result in an idle system in which organizations invest, and often waste, tremendous amounts of time and money.

**“Buy” costs are lower, time to market is substantially shorter, it is future proof, and all in all risk is substantially minimized.**

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