

How Big Data and Analytics Are Disrupting the Financial Sector

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Executives at a European financial services firm had a clear vision. The company would create a data analytics application for all the markets it served. The company would collect data about its customers' behaviors and preferences and, through analyzation of the data, could identify opportunities that would enable the firm to present the right offer to the right customer at the right time. The company, thereby, would become more central to the financial lives of its customers. Rising revenues, of course, would follow.

Partway through the work of building the application, however, cost pressures at the firm whittled away at the scope of the project. Instead of an application that would address all its markets, the firm decided to prioritize one market and launch the application there. But the company had neglected to establish frameworks for defining and categorizing the data assets being collected, making it difficult (if not impossible) for the application to recognize how data points related to each other. The company also missed the opportunity to document its work clearly so that future application developers and business analysts could build upon the work already done. This meant the data the firm had collected could neither be used nor reused. Not surprisingly, the attempt to roll out the system in the aforementioned pilot market did not yield the results the company had envisioned.

Revenues, of course, did not rise.

As enterprises look to access the benefits of Big Data analytics, the urge to seek major wins too quickly can mean time and resources wasted if proper management support and appropriate

data management approaches don't accompany the efforts. At the European financial services firm, the project's failure forced the company to begin again, recreating data management processes that would meet the needs of one market. Having to scrap all the work done and starting over from scratch meant that the firm essentially had lost four or five years of opportunity to leverage the data it had painstakingly collected.

As the firm struggled, its competitors moved forward with their own Big Data analytics efforts even as new technology-savvy companies entered the market.

The Data Management Imperative

There are many established companies with great stores of internal data, as well as access to external data sources. Combining the two can lead to intriguing possibilities for exploring a range of vital questions. How is our business positioned in its field compared with rivals? What signals do different market segments present that could inform our

strategy going forward? What preferences do our customers demonstrate, and what is likely to entice them to be loyal to us and increase their consumption of our products and services?

Taking full advantage of a firm's information resources requires consistent, coherent data management practices, and that calls for corporate leadership dedicated to two principles:

1. Consistent data management

Corporate leaders must be committed to taking advantage of data resources and the insights they offer. This enables business and information technology (IT) leaders to align their efforts with corporate strategy. And it empowers a commitment to a master data management approach (see "Data Masters," page 3).

2. Commitment to deploying data analytics as a competitive lever

An organization's leaders need to commit to the idea that implementing analytics has become a requirement in understanding existing customers and connecting with new ones; such a belief

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is essential to business success. Analytics are necessary to stay abreast with competitors both old and new, especially as companies, including Apple and Google, are using data-enabled strategies to enter the financial services industry (see “Restless Digital Natives”).

These recent entrants have certain advantages over established companies that currently possess dominant market share. Newcomers don’t have the difficulties traditional firms have in integrating the data held in legacy systems with state-of-the-art systems. Apple and Google don’t have the same kinds of legacy systems, and data management is central to each company’s mission. Established firms must make this commitment to analytics a central part of their strategy if they expect to succeed.

This, of course, is doable. For example, the European financial services firm could have taken a different course in its data analytics project. Instead of going for a big bang by launching a system for all its markets, the company could have established prototype projects in one or two countries to pilot the program. By following master data management principles, the company could have formulated quality controls for the data collected and analyzed and then developed business processes to manage the data.

This approach would have allowed the firm to demonstrate the worth of these practices with early and relatively small wins. The company then could have used those formats as a prototype for rollouts in other markets and countries. With all that in place, the regions would have been able to share in each other’s success and accumulate business value

along the way as the firm moved toward a full, companywide adoption of the system.

Even though this would have been an incremental approach, the project would have placed strong data management at its center and made analytics core to the company’s growth strategy — just as the new market entrants do. It likely would have saved the firm valuable years (and money) that, instead, were wasted.

What Success Looks Like

An insurance company found it was able to reduce its risk by analyzing data about accident claims for its transportation clients. The company shared its analysis with clients, and the transportation companies rerouted some of their trucks to avoid roads where there consistently were more accidents. This resulted in the insurance company (which created incentives for its clients to use the alternative routes) reducing payouts to claimants.

This case demonstrates the benefits of good data management practices. The insurance company leveraged data associated with accident claims/insured vehicles and studied traffic and highway data from external sources. Predictive analytics were implemented, and models were developed to determine what would happen if vehicles drove a range of routes to reach their destinations. In this manner, the company learned which routes met its business requirements and was able to reduce the probability of accidents and claims.

While this summary may read like an IT success story salted with applied

Data Masters

A master data management approach establishes definitions for business processes and data assets for maintaining these resources as they accumulate over time. It includes a consistent data quality and stewardship program.

With this approach, when companies change strategies, IT leaders or staff, the organization will retain an understanding of the data assets it holds, including:

 How each data asset relates to others

 How each data asset relates to new incoming sources of data

 How the assembled data assets can deliver business value

statistics, it is more than that. The insurance firm’s top executives demonstrated their belief in the value of data analytics (Principle #2); and they worked with IT colleagues to align the analytics program with business goals (Principle #1). Combining the two resulted in supporting the investments needed to develop the applications. And because the program was properly implemented, it led to a high return on investment.

Restless Digital Natives

It's hard to escape the news that technology firms are entering the financial services arena:

[Apple Pay](#), launched in 2014, allows purchase of goods at the point of sale via a user's iPhone and iPad.

[Google Compare](#), a service in the United Kingdom started in 2013, enables consumers to search for car insurance price quotes among 123 providers, promising savings.

[CurrencyFair](#) and [FairFX](#) have entered the currency exchange market with data-driven approaches.

[PayPal](#) is running a pilot to allow customers to pay for goods in Bitcoin, adding to PayPal's services.

Established players should consider these moves as merely the start of an inexorable onslaught from entrants that are data rich, analytics competent and masters of data management.

Your Three-Point Checklist

High-quality information drives decisions. Executives who lead firms need to be able to analyze data. Not being able to do so well invites failure.

To assess your capability, ask yourself these three questions:

1. Are we taking the right steps to put analytics at the center of what we do?

In other words, are you treating analytics as an asset with both strategic and tactical applications? Your plans for analytics should have clear business imperatives. The results from analytics

applications should drive business decisions.

2. Are we taking the right delivery approach for our analytics?

Simply put, too little doesn't get you anywhere, and too much in a short time frame can lead to failure. Proceed with both strategic goals and tactical intent. Avoid big bang projects. Prove the worth of analytics with small victories and build on them to achieve a defined destination. Embrace change management disciplines to ensure analytics adoption in your organization. Consider collaborating with service providers for speed and expertise.

3. Are we leveraging different business model options to increase speed to market?

There are many technology and service providers that can offer valuable components of your overall analytics strategy. This enables you to procure variable cost elements of your analytics outputs on an as-needed basis. You also can learn and adopt analytics best practices from domain experts.

Significant value is available through analytics-led initiatives. The factors outlined above underpin success and can position your organization to remain competitive and defend the company from the inevitable: technology companies entering and disrupting your market. ■

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