The CFO as the catalyst for the DATA-DRIVEN ENTERPRISE
The CFO has an important role in monetizing data, and supporting advanced innovation and business agility with cloud, AI and analytics

Across industries, the demands for rich, accurate, and timely data are growing dramatically as organizations increase their use of data to innovate, compete, and improve profitability. Recent Accenture research found a direct correlation between high performance and becoming what we call a “data-driven enterprise”—cloud-enabled companies that can maximize the value of data and treat it as an asset differentiated by its completeness, lineage, and quality.¹

Such companies use data as the basis for business agility and critical business decision-making through advanced technologies such as artificial intelligence and analytics. As we wrote in our recent paper, “The power of the data-driven enterprise,” the data-driven enterprise is one that pursues growth and innovation through cloud technologies, data optimization, prediction, continuous learning, and an insights-driven culture. Data-driven businesses embed cloud-enabled data and predictive analytics at their core.²

But who should manage the cloud-based, data-driven agenda? Accenture research³ has found that Chief Financial Officers (CFOs) are increasingly being asked to help steer the data-driven journey, working with the IT function as it moves the organization to the cloud and implements advanced technologies such as AI, analytics, and automation. CFOs are well placed to measure the financial impact of data-driven decisions and report the true monetized value of data to shareholders. CFOs are also in a position to help identify and validate the monetizable revenue streams of a business and apply data-driven techniques to those processes. Finance executives have the potential and mandate to make a data-driven agenda more widely adopted. Accenture research indicates that a large portion of our clients believe that the CFO is better positioned to be the steward of data and that, when the CFO is leading the charge, the data-driven agenda is more widely adopted.⁴
Finance executives understand the discipline of assigning economic value to data. With the advent of digital and cloud, data has now become one of the most critical sources of new business value. Cloud-enabled data requires a new foundational framework for business to manage, measure, and monetize information as an actual asset. Setting up the appropriate IT systems to enable the extraction of value (for cash or trade) is just step one, and a CFO can help in assessing various commercial models, thinking through the financial risks, how to recognize and account for new value created, and apply the necessary controls and governance.

It is thus critical for today's CFO to play the role of the custodian of digital information as the business becomes ever more dependent on deriving monetizable insights from data— as Accenture research has shown (see Figure 1).  

**FIGURE 1.**  
Proportions of finance functions that are receiving growing requests for insight and analytics in key areas.

<table>
<thead>
<tr>
<th>Data Type</th>
<th>High-growth firms</th>
<th>Rest of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market data (price and trade-related data)</td>
<td>74%</td>
<td>52%</td>
</tr>
<tr>
<td>Social media data (sentiment analysis)</td>
<td>74%</td>
<td>51%</td>
</tr>
<tr>
<td>Marketing (including web traffic) and CRM data</td>
<td>74%</td>
<td>47%</td>
</tr>
<tr>
<td>Financial data</td>
<td>72%</td>
<td>54%</td>
</tr>
<tr>
<td>Risk and compliance data</td>
<td>72%</td>
<td>49%</td>
</tr>
<tr>
<td>Operational data</td>
<td>69%</td>
<td>45%</td>
</tr>
<tr>
<td>Macroeconomic data</td>
<td>66%</td>
<td>42%</td>
</tr>
</tbody>
</table>
Other factors that figure into the growing importance of the CFO to data-driven, digital innovation include:

Digitizing finance and harnessing the power of data
CFOs continue to automate routine accounting, control, and compliance tasks. They are increasing their focus on value creation as cloud-based, digital technology empowers them to shape strategy through data. According to our CFO research, more finance functions are already using a variety of emerging tools for better interpretation of the base data—from predictive analytics (74 percent of those surveyed for the report) to artificial intelligence (61 percent). In part because of these developments, CFOs can increasingly provide higher-level thinking, answering new questions in new ways and bringing the C-suite together to act on insights gleaned from data analysis.

Leading digitalization efforts
CFOs play a critical role in the digitalization of their enterprises, with most starting in their own departments. In a virtuous cycle, the data capabilities CFOs develop can help them make decisions about investing in cloud and digital technologies across the enterprise based on economic value, which in turn empowers them to generate and combine even more useful data.

CFOs’ ability to synthesize rich and complex data sets, and develop rigorous analyses of potential investments while managing risk, lets them assess plans and strategies more objectively. These capabilities are making CFOs even more popular as appropriate managers and coordinators of data and insights. They can help facilitate data as a monetizable asset that drives strategic decision making—an asset that can be measured against the economic impacts it can have on value creation, profitability, and shareholder value.
Monetizing data

Finance executives are optimally positioned to facilitate the means for their organization to consume cloud-enabled data as the primary methods for generating profits in the digital era. These methods can range from directly monetizing data—which may include, for example, the opportunity to sell data to drive a new revenue stream—to indirectly monetizing data’s economic value.

Direct monetization

Here’s an example of the importance of the CFO to monetizing digital innovation and driving a new source of revenue. A major international airport group has been working with Accenture to drive growth in commercial revenue and improve the customer experience. As part of this effort, the group is leveraging AWS cloud technology, along with WiFi usage logs and beacon data, to track the movement of users within the airport and trigger real-time marketing. This has helped the airport group:

01
Increase revenue from personalized campaigns. This is achieved through advanced analytics and machine learning.

02
Monitor browsing behavior from external websites, allowing the creation of microsegments to improve personalization.

03
Better utilize marketing spend using analytics-based insights for specific customer segments.
The CFO has been front and center in helping to monetize data from the group’s B2B sales channels with tenants, increasing the company’s commercial value.

Or consider another example of a direct monetization method from KDDI, one of the largest mobile carriers in Japan with more than 50 million subscribers. To deliver a better customer experience, which in turn can drive revenue growth, KDDI teamed with Accenture to form ARISE Analytics, which analyzes Big Data for meaningful customer activity information. Since the initial success, the venture has expanded beyond KDDI. An example is JapanTaxi. General traffic congestion in Tokyo often results in a lack of taxi availability in areas where demand is high. JapanTaxi, along with Toyota and ARISE, piloted a taxi dispatch support system for predicting demand for taxis.

Using KDDI’s smartphone location-based data and other third-party data sets on a cloud platform, ARISE was able to build artificial intelligence inferences that could predict the location-based demand for taxis, the number and locations of occupied taxis, and the positioning of potential passengers. Drivers using the taxi dispatch support system during the pilot recorded up to a 94 percent accuracy rate in dispatching and a 20 percent increase in sales. That is a data-driven source of new revenue for KDDI and ARISE Analytics that a CFO can effectively assess.

AWS is an important enabler of this kind of data analysis. AWS enables customers to upload disparate data sets (both internal and external) to conduct holistic analysis (e.g., internal data, market data, weather data, etc.) to determine causality and improve profitability.
Indirect monetization

In addition to direct monetization, significant economic value can also be produced for organizations by indirectly monetizing their data. Indirect monetization methods include using data to improve productivity and operational efficiencies, or to reduce risk and develop new products and markets. The importance of finance executives in driving the economic value of indirectly monetizing an organization’s data should not be taken lightly as an organization looks to lean on CFOs’ support to drive the transformation to be more data driven.

Here is an example of how indirectly monetizing data to execute a digital transformation can be led by finance executives to drive operational efficiencies, and then also to work with IT and the business to evolve cloud-based services for new markets through data and digital channels.

An industrial company that manufactures ship engines and power turbines was looking for ways to increase efficiency. The organization worked with Accenture to help predict, with a high degree of accuracy, when the marine engines they manufactured would require servicing. Using machine learning models to accurately predict service schedules is a vital part of the company’s services and parts revenue. Late delivery could cause a customer to switch to a different parts manufacturer and service company, so timing was critical.

Supported by the AWS cloud platform, the solution used sensor-based information captured from the ships’ engines and engine rooms correlated with GPS data as the ships navigated the world’s oceans. With this data, Accenture and AWS were able to help the company improve engine failure predictions, which ultimately led to a significant increase in the company’s parts and service sales.

The company did not stop there. Its success with increasing sales from data insights led to initiatives by business and finance executives to create new ways to use the same techniques and data to identify new revenue streams and markets. Today, the company provides insights into engine room safety and efficiency, ship navigation and route planning, and similar cloud-based, data-driven services for global shipping fleets. The company’s goal is to become the best-known provider of digital, data-driven insights to service smart vessels and ports.
How the CFO can help shape the data-driven agenda

What can CFOs do today to help speed their organizations toward becoming more effectively data-driven? Here are a few things to bear in mind:

01 **Indirectly monetize your data.** Finance teams should look to identify simple operational processes from existing revenue streams. By working with data in a cloud environment to drive insights into those revenue streams, the technology and finance organizations can work collaboratively to improve existing operating efficiencies.

02 **Enable data as a strategic asset.** Once finance executives have established how to leverage data to drive efficiencies, an important step in monetizing an organization’s data is modeling the true value of data to the enterprise so that data can be treated appropriately as a strategic asset. This step involves defining the accounting practices and principles that can help speed the adoption of cloud and data-driven insights.

03 **Expand on the notion of indirectly monetizing data.** Once the proper accounting principles are in place, finance executives can then prioritize the backlog of data opportunities in their business. Cloud-based, predictive analytics can help uncover untapped revenue and new business opportunities, but only if the financial processes have been established and companies have a clear understanding of the value of their data as a strategic asset.

04 **Explore opportunities to directly monetize your data.** As finance teams mature with cloud technologies, and as the economic value of their company’s data is quantifiably understood, then expanding beyond indirect data monetization should be explored. Some options to investigate include prioritizing direct sales channels, and determining how best to use data to service other organizations as a new, direct revenue stream.
CONCLUSION

The CFO and the data-driven agenda

The ability to use cloud, AI and analytics to capture, structure, and improve the use of data and data insights to increase profitability is an important source of a CFO’s innovation and business value. The importance of being a data-driven enterprise will only intensify as more organizations uncover better cloud-based data insights to improve their competitive advantage and drive growth. To be successful, CEOs and boards will increasingly turn to the CFO to help drive the organization’s data agenda.

References

4. Ibid.
5. Ibid.
6. Ibid.
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