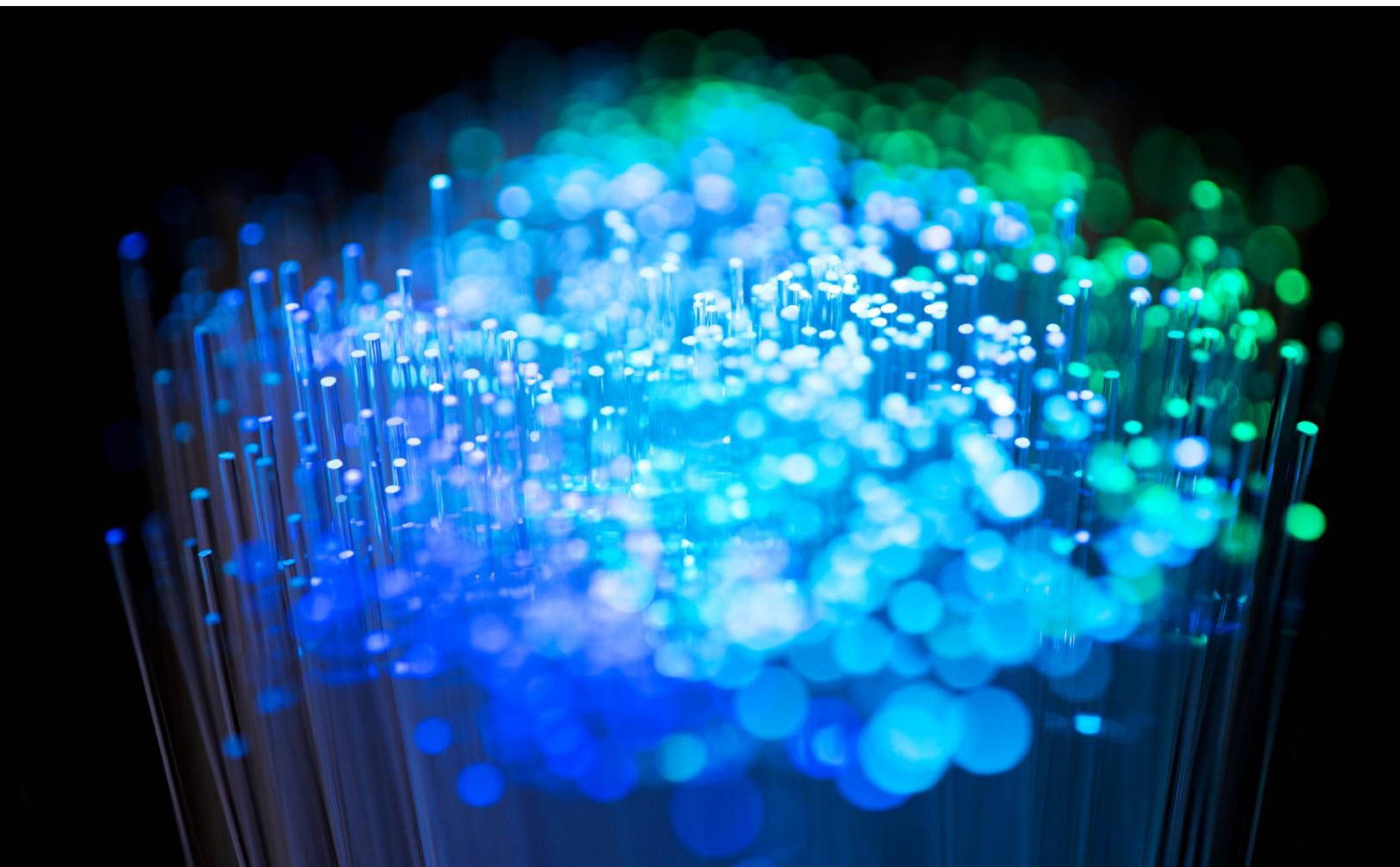


# Digital transformation: The CFO's role

With their role sitting at the center of the strategic-planning process and financial disciplines, CFOs are well positioned to become critical drivers of digital transformation.



In this episode of the *Inside the Strategy Room* podcast, senior partner Michael Bender sits down with Sean Brown to tease out the real meaning of digital-analytics transformations. They also talk through the role CFOs can take on to drive successful change efforts. (For more conversations on the strategy issues that matter, subscribe to the series on iTunes.)

### Podcast transcript

**Sean Brown:** From McKinsey's Strategy and Corporate Finance Practice, I'm Sean Brown. Welcome to *Inside the Strategy Room*. Today, we're joined by Michael Bender, a senior partner in our Chicago office and the global coleader of McKinsey Digital and Analytics. We sat down with Michael in London, where he had just presented to our Global CFO Forum on the role CFOs can play in driving digital transformations. We also covered the nature of digital transformations more generally, how digital and analytics go hand in hand, and the challenges companies can face when working to adopt both.

Michael, tell us just a little bit more about what is digital? What is a digital transformation?

**Michael Bender:** Sean, it's interesting that we get this question all the time. Digital is the radical reshaping of industries, companies, and society through the use of advanced technologies and advanced data analytics. The reason that's important is because at one level we all know certain industries are getting reshaped dramatically, such as media and retail. We also know that individual companies are getting radically reshaped by those changes and disruptions in the industries. It's equally important to note that society itself is getting reshaped. A lot of governments are trying to think through how technology changes the way they serve their citizenry. Here in Europe, there's a lot of discussion around whether or not there needs to be

more data privacy or control over the big internet giants; these things are all important. That's what we see digital analytics as. That's what we see digital as, and we see it as a force that's going to continue to shape the world for the next decade or two.

**Sean Brown:** How does this impact a CFO?

**Michael Bender:** CFOs are almost invariably sitting at the center of the operating committee or the leadership teams of their companies. In most cases, they're the keepers of the strategic-planning process and financial disciplines, and in many cases, the combination of the strategic-planning process and the financial disciplines becomes a critical enabler of how to drive a digital transformation. Today, I spent some time with a couple of CFOs, and we talked about getting to a "true north" around how much value there is in digital analytics for your company. How do you figure out how to identify, track, and monitor the big digital-analytics projects? How do you know you're spending the right amount on technology or new talent? These are all roles the CFO is central to in most big companies that I've seen working on digital analytics.

**Sean Brown:** If you were a CFO trying to drive a digital transformation within your company, what are some of the first steps you would take to help make that happen?

**Michael Bender:** First and foremost, we no longer see a real distinction between corporate strategy and digital-analytics strategy. We think the corporation, the individual functions, and the individual businesses have to figure out some way to make digital-analytics transformation or digital-analytics strategy a central part of the overall business or corporate strategy. In this strategic-planning model, the CFO has a real role in incorporating the digital-analytics thinking into the corporate strategy.

The second thing CFOs can be very impactful on is using some process, maybe over a year, maybe over two years, to identify where the dollars are that might come from digital analytics over the next three to five years. What is the full potential in my company from digital analytics? I had a discussion earlier today with a CFO working in a major oil-and-gas company. They talked about how they could see a lot from advanced analytics in certain areas; they could see a lot in their retail business from using better B2C digital marketing. They could see a lot in certain parts of the trading business from bringing new data insights into the trading business. They believed that number could be in the billions of dollars of impact by bringing those kinds of digital-analytics insights to the business. The CFO, on behalf of the overall operating committee in the CXO team, must have a good view of that full potential from digital analytics over the next three to five years for their business.

**Sean Brown:** It sounds like digital is one of the important enablers for being able to do the advanced analytics. Can you take us through an example of a company that has gone from digital to do some cool things with analytics?

**Michael Bender:** I think that digital and now analytics are like twins. Four or five years ago, before the rapid evolution in advanced analytics that has occurred over the last two to three years, we spent a lot of time in certain industries focusing on digitizing processes. We spent time on going into the back office of a mortgage underwriter and changing the process so there is less paper and more direct contact with the consumer. We spent time on retailing to figure out if you need all these physical stores, or can you augment the physical stores with online channels? Or can you augment online channels with physical pickup in ways that change the consumer experience and make it easier for the consumers and make it cheaper for the retailer to provide their services?

What we've increasingly begun to see is that with analytics tools, you can augment those digitized processes. In the mortgage-underwriting process, there is a whole set of new techniques you can bring to bear to better choose your customers and better know which customers will convert. When you bring that into the digital mortgage process, you can make that process better. In the retailing world, particularly when you're going direct to the consumer, there are any number of analytics-powered insights that give you a sense of the next product to buy, or give you a sense of where to direct that consumer to a different channel, or give you a sense when that consumer is trading or leaving your group and give you techniques and methodologies to bring back that customer. We see digital and analytics as twins working together to improve the customer experience, improve company performance, and improve the way companies work.

**Sean Brown:** Can you talk a little bit about the foundations of a digital transformation?

**Michael Bender:** When we started talking with a lot of companies about digital transformations three or four years ago, we used to say, "OK. Do a digital strategy." What's a digital strategy? A digital strategy is understanding how technology is going to change your business, thinking about big disruptions, thinking about new businesses you might build, and thinking about how technology or analytics is going to change your business processes.

What that leads to is two main pieces. It leads to a whole series of activities which we call reinventing the core—changing the mortgage process, changing the fulfillment process in a retailer, changing the online marketing of a new telco subscription. It also means figuring out whether there are new business models that you're going to want to introduce. Are you going to introduce a new direct-to-consumer capability if you're a brick-and-mortar retailer? If you're a chemicals processor, are you going to go

out and introduce a new channel for a different set of businesses? When you do that, you've got to do something different than reinventing or remodeling the core. You've got to build the new business, and it comes with all the accoutrements of business building: you put a technology team together, you come with the business plan, you identify the customer base, you identify the value proposition, and in the end, you're building businesses that are more digital businesses. You see this often in banking, where big banks are building sidecar banks, because they want to go to a more digital-savvy, younger consumer who's looking to the bank for a peer digital experience. That's the foundation of digital.

The challenge with the foundations of digital is that almost every company now has a digital strategy and a good set of ideas about how to reinvent the core and a good set of ideas on new businesses to build. The challenge they then run into is how to actually make it happen. There are two blockages that have emerged that are really putting a crimp in the ability to execute and implement a digital strategy. The first one is technology modernization. A lot of the technology for big companies was built decades ago in an old legacy-system model that's very hard to adjust. As you shift to digital, you get more consumer interaction, you add analytics into the equation, and that technology environment does not work anymore. It's very hard to transition away from that technology environment.

The second big blocker is organization. The typical organization has a very linear process: I set a strategy, I set some incentives, I use the incentives to figure out how I might use technology, I come up with the business requirements and specs, and then the technology delivers something. If it's not quite right, we go back and fix it. That doesn't work anymore, because a lot of these digital business-building efforts, and a lot of the digital change efforts, require an entirely different cadence of change and entirely different skill sets. You need a

customer-experience designer; you need product designers; you need agile, strong coaches to drive these teams; you need cross-functional teams; you need data scientists; and you need data engineers to go in and dig out the data. You need all of these things to make this work, and even if you get the strategy right, you've got two major blockers: technology modernization and the agile organization that's going to support digital change.

Finally, there's the pesky little question of, "Do you get any money out of this?" What a lot of organizations have done is, they've piloted a bunch of activities, they've introduced some digital, they've got a new website, and it's all kind of feeling more digital, but they're not actually getting any dollars, they're not getting that much more sales, and they're not reducing costs. The phrase I often use is, "If you're a digital bank, and you've created a new digital channel for sales, and you've created a new sidecar digital bank, and you've created a way for customers to interact through mobile and through their home computer, that's all great. But if you haven't yet closed some branches or reduced the size of the call center or changed the nature of that service model, then you really haven't gotten anything done." The real end of the process, the keys to the kingdom, is value capture, value adoption, and change management within the business, so that you're making the shift from what was a physical, analog business to a digital business and reaping the rewards of that.

**Sean Brown:** You talked about the organizational challenges that can happen. In your presentation, you highlighted "four horsemen" of failing digital and analytics transformations. It looks like "war" is the one around organization. Can you talk about the other three and give us an overview of these four horsemen?

**Michael Bender:** The first failure mode is "famine." What we mean by that is poor resource allocation.

Some organizations are overinvesting in reinventing the core and underinvesting in reinventing new business models. Some have done the reverse; they spend too much time building business models but aren't reinventing the core. Some overinvest in digitized processes and underinvest in analytics, others do vice versa. What we're seeing is that they just don't have quite the right resource allocation to go forward. This comes back to something we discussed a little earlier, which is around the CFO role. One of the CFO's primary roles is around financial disciplines and resource allocation. The reason we think CFOs and their associated CXO teams need to get a really good sense of where the value is in digital-analytics transformation is to get more thoughtful about resource allocation.

The second of the four horsemen—and I'm not sure if it really links to the topic—is "pestilence." What we mean by this is "death by piloting." Many organizations came into this and they said, "We've got a lot of good executives, we've got some different functions, we need to think about digital-analytics transformation, and each of our businesses are going to think about it and each of our functions are going to think about it." That's fine if you have a fairly small business and they're talking to each other. But if you're a big, multinational telco, or a big oil-and-gas company, or if you're a big multinational conglomerate, what that leads to is a whole lot of different people at very different levels of understanding about how digital analytics changes their business, all using some form of piloting to start figuring out what the answer is. Because we all love a pilot—doesn't have much commitment, you go and do some stuff, you put a team together, they pilot away. What's been happening over the last year or two is, we have organizations coming back to us saying, "Oh, yeah. We've got this great doodad that helps to predict when the plant might go down," and we said, "Well, that's great. Have you scaled it up? Have you brought it to a bunch of plants?" "Oh, no. It's more of a model we did in one little plant,

but someone lost the code now and we're not really scaling it up."

What they came back and said was, "Help us think through how we move from pilot paralysis or death by pilot into a real scale-up model," and the first answer to that, in a lot of cases, is just getting clarity on what the true value at stake is and where it is.

The second is getting the 200 pilots organized into maybe ten bigger themes—so there's a big theme on predictive maintenance, there's a big theme on direct consumer marketing, there's a big theme on using predictive analytics in the supply chain, and there's a big theme on inventory transparency across the supply chain. If you can get those grouped for a big organization, then you can build skills and capabilities to pursue and scale those.

Finally, how do you engage the front line? If you just do a pilot and you just do it in one plant, ultimately, for many of these organizations, if you're a pharma company and you've got 13 or 14 plants for your pharmaceuticals, you're going to have to scale out across the 14 plants. You have to figure out how to do that scaling.

The third of the four horsemen we talked about, and, Sean, you mentioned, is war, and by that we mean these organizational challenges, and there's a whole bunch of them. In the original form of company management, you'd have a strategic plan which you'd set each year. That strategic plan would set through how to make three changes. Some of those three changes had technology. You would then go through a business-requirement process. Then you'd decide you needed a large ERP [enterprise-resource-planning] system to implement the technology, and you'd go out and select a technology. By the time you'd gotten all that done, you'd be two-and-a-half years in, and then you'd start getting tired because the coding took too long. What we're seeing

is the need for a much more rapid organizational methodology. That could be much more rapid consumer insights in the marketing department. That could be forming cross-functional teams around technology-enabled projects, so you're actually creating rapid minimal viable product and then beginning to scale it up into the businesses. That could be creating more stage-gated funding processes, so if you think this is going to be a good idea, you get it going; if the pilot works, you then fund it to scale; if the pilot doesn't work, you defund it. It could be all of those things.

There's some critical ones here that we've talked about before. For an organization to move forward on digital analytics, you've got to have very technology-savvy senior leaders, and you've got to have incredibly business-savvy technologists, and that becomes a blockage in many organizations. Many organizations are working very hard to bring up the IQ of their companies and their executives around technology and digital analytics. Another big one is specialized skills. There are four or five specialized skills that every one of these transformations needs: there's data scientists, there's data engineers, there's architects, there's application architects, there's cybersecurity people, there's consumer-experience designers; all of these skills are quite difficult to find. Many of them are agglomerating in the West Coast or in some major technology centers like Amsterdam or Berlin or Silicon Valley or Austin, and for the big company, they've got to find out a way to attract that talent, keep that talent, and embed them in the business.

And then finally on the organizational side, there's a whole set of adjustments to the finance process—again, stage-gating, keeping track of big technology projects, funding the best things going forward, knowing where the true north in value is. All of those are big organizational challenges.

The last and probably most important of the four horsemen, of course, is “death.” That's when you've chosen to get the digital-analytics transformation defined, you've begun to pilot and scale, you've solved some of the organizational challenges, but you can't figure out how to monetize it and capture value. Because digital analytics is inherently creating more transparency, many organizations find that there's price pressure, there's consumer pressure, there's shopping behavior; all of that is putting some pressure on the revenue line. You see that most classically in the retail world with the emergence of Amazon dislocating on multiple categories relative to the bricks-and-mortar retailers, and the bricks-and-mortar retailers trying to find ways to fight back. You see that in shopping of insurance in most markets, where there's e-commerce websites where you can either shop one insurance site, or you can shop multiple, and so the cost of a personalized auto-insurance policy has gone down systematically over many, many years.

Most organizations do these digital-analytics transformations and they say, “Oh, my gosh. A lot of it is going back to the customer,” and what most organizations have to figure out is, how do you give some back to the customer but not all of it? Maybe you create some other services models that augment the product model in order to capture more of the value from digital. Finally, you're going to have to reduce the cost structure ahead of declining consumer demand. So that magic equation of how to get adoption in the front line and capture value so it doesn't just become a lot of expensiveness to make the consumer happier is a real challenge. That is the fourth of the four horsemen, death, and it's all about getting real value capture for your company.

**Sean Brown:** Have you seen any situations where companies have done a particularly good job of hitting their cost base as part of a digitization effort?

**Michael Bender:** In a lot of B2C businesses, the impact of digital analytics has been to create more price transparency, create more consumer choice, eliminate some of the distribution models, and the result of that has been, in many cases, declining revenue margin or declining pricing for the same product. Most organizations try to stay ahead of that by reducing cost, or in some ways adding services to the consumer bundle, but that's a tough strategy.

In B2B, a lot of companies are thinking about backward integration into other parts of the supply chain in order to continue to reduce their costs. Many organizations have introduced different procurement methodologies that allow them to go back into their supply-chain use procurement or auction methodologies to drive down the cost. The reality is that not all those methodologies need to be about procurement and driving down the price of your supplier. Some of those are more cooperative, meaning you establish a very tight linkage with your suppliers so you have transparency to inventory, and in that transparency inventory, you're helping your supplier get a lower cost of goods sold.

I know of one great example where a major retailer had this very nice data store that gave their consumer-goods suppliers good visibility into what was selling in which places. They decided that was such an advantage to their suppliers, and their suppliers liked it so much, that they were going to work cooperatively with a number of the suppliers in order to enhance that data store and provide even more information around what was selling in the stores or selling online. That would then give the suppliers the ability to better predict their own inventories and manufacturing so all along the chain you get savings that are able to offset what the consumer wants. The retailer maintains its margins as best it can, and the consumer-goods seller ends up maintaining its margins because it's holding less inventory, it's

manufacturing less, and it's shortening its global supply chain to reflect the demand signals coming from the retailer.

**Sean Brown:** Michael, earlier you talked about how digital and analytics go hand in hand. Can you just talk about the challenges of adopting both?

**Michael Bender:** It's increasingly clear that digital and analytics are complementary. Most organizations need to be building both those muscles. Digital is a process redesign and underlying technology support. Analytics is much more about collecting and organizing the data and then using new techniques and methodologies to interpret that data. Digital caught everyone's attention in a very dramatic way four or five years ago, and most organizations have done a pretty dang good job at working through the digital opportunities. Analytics is a little more recent. In fact, the power of analytics and the volume of data available has really accelerated over the last two to four years, and so many organizations are two or three years behind on their analytics journey than they are in their digital journey. Since they go together, one of our current arguments is, "You really ought to get focused on where data and analytics is going to add a competitive advantage in your business. And you really ought to get focused on building the skills required. Because if you think that digital, technology, and coding skills are rare and in demand, the demand for analytics and data-scientist skills is even more profound."

**Sean Brown:** If you're trying to tell your child what major they should be in, sounds like analytics is a pretty one to go to.

**Michael Bender:** I would think that anything in coding, analytics, design, technology, and machine learning is a good place to be.

**Sean Brown:** You've talked about these four horsemen of digital failure. What are some of the ways that a CFO can avoid these?

**Michael Bender:** I think there's six things. The first and most important one that we talked about earlier is to make sure the corporate strategy is heavily infused with the digital-analytics strategy, and that the digital-analytics strategy is central to the corporate or business strategy.

The second one is that the CFO has to get a full understanding of how much dollars or opportunities or threat or risk there is in digital analytics, with the five-year-out perspective. It's good to suspect that there's money in predictive maintenance. It's good to suspect they need a different direct consumer model. Ultimately, we think the CFO has got to be able to say, "If today my revenue is 14 billion and my profit is two, I can see price transparency and demand putting a threat to that 14. I can see my cost structure getting reorganized by these parts of digital analytics, and I think that the prize is two billion in incremental value that I need to capture, some of which I'll give back to the consumer."

Number three is really thinking through the funding mechanisms. By that I mean, in order to do this well, one of the organizational challenges is moving away from the very rigid year-on-year planning cycle and everyone trying to move opex up by a nickel and not getting clear on how the capex/opex trade-off and the technology spend versus operational spend is going to change. The CFO has to introduce a more sophisticated way of thinking about project ROI [return on investment] across technology in other parts of the business, about stage-gating, about incubator funds for certain parts of it, and certainly about how to adjust the cost of the technology department in terms of more expensive skills versus less expensive skills, and maybe using some of this cloud terminology, fixed

costs versus variable costs. The CFO's got a big role in thinking about stage-gating funding and the economic profile.

There's a fourth topic that CFOs are increasingly playing a role in. Because technology in ops and digital and analytics is becoming so important to the future of most organizations, it turns out that this is not just the CIO keeping track of the projects, and it's not just the CFO keeps track of the dollars. We're increasingly convinced that the digital-and-analytics-transformation plan has to be owned by the full executive team. The CFO has to be intimately involved with the CIO and other parts and the individual business heads, to ensure that transformation program and the underlying initiatives are being executed well. There are two other things that we think CFOs really play a role in digital analytics.

Number five is getting the investor story right. One of the things you see these days, if you go to investor day or go to a quarterly earnings report, is that the CFO is with the CEO and CIO describing a digitization-analytics journey—describing how it's going to change their industry, how they're going to work with their customers differently, and how it's going to impact their financials. CFOs have to figure out some way to weave that digital-and-analytics-transformation story into the investor story.

Finally, six, there's a lead-by-example issue here. With the increased power of certain cloud-based finance capabilities and other techniques like robotic process automation that supports shared services and remote delivery, there's increasingly an argument that the CFO has to lead by example, by digitizing the finance function. Whether that buzzword is robotic process automation, shared service, self-service in the finance function, ubiquitous business information, automation at scale, somehow the CFO needs to lead by example

and think through how digital analytics is going to change the finance function. So those are the six things we see that CFOs need to do.

**Sean Brown:** Michael, thanks for joining us today. ■

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