

How a digital factory can transform company culture

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Companies are beginning to use digital factories as incubators of more agile ways of working, often filtering the best attributes of the factory culture back to the larger organization.

A digital factory often calls for a whole new set of rules, including increased agility, new technology solutions, and cross-functional teams. Those differences have often spelled success for companies trying to develop and push out new digital capabilities quickly. In this episode of the *McKinsey Podcast*, senior partner Rohit Bhapkar and partner Joao Dias speak with McKinsey's Barr Seitz about the challenges leaders might face in building digital factories and how to set themselves up for the best results.

Podcast transcript

Barr Seitz: Hello, and welcome to the *McKinsey Podcast*. I'm Barr Seitz, global publishing lead from McKinsey's Marketing & Sales and Digital Practices, and I'm very happy to be joined today by Joao Dias, a partner based in McKinsey's Cologne office, and Rohit Bhapkar, a senior partner in our Toronto office.

They are also the coauthors of the article "Scaling a transformative culture through a digital factory." For today's conversation, we'll be discussing what a digital factory is, how senior leaders can overcome the management challenges in setting one up and running it, and what it takes to get started.

So, let's dive in. Joao, I'd like to ask you the first question. In your article, you make the point that companies have had plenty of successes with small-scale digital pilots, but they start to run into real problems when they try to scale those digital programs across the business. Why is that? And why is setting up a digital factory one way to address that issue?

Joao Dias: Thank you, Barr. The issue that most companies face is that, when they start doing digital transformations and digital projects, they realize that they need to break a lot of rules.

They need to break the rules on how to allocate people into the initiative, or how to fund the initiative, or even what technologies to use or what project models to use.

And it's OK to do it in a pilot. Oftentimes, the CEO and most senior people pay a lot of attention to those pilots, and they help bend the rules or they just dictate that, for that short period of time, it's OK to do as they do. But a CEO or a senior-executive team cannot spend all their time paving the way for it to happen.

That's where a digital factory comes in. A digital factory is basically an organizational construct where you end up allowing for a number of rules to be different. Within that digital factory, it's OK to work in an agile manner. It's OK to use a different technology set. It's OK to host a number of things on a quasi environment, for example. So the digital factory ends up being the setting of a whole new set of rules that allow people to work differently and give the senior team the space to then just sponsor it and support it instead of fighting every single fight, every single day.

Barr Seitz: Rohit, what exactly is a digital factory? Can you explain what one looks like, how it operates, and maybe give an example of a digital factory in action?

Rohit Bhapkar: Building off what Joao was talking about, one element is the culture and the operating model of the digital factory. This is generally a place where teams will work in very different ways than they may work in the rest of the organization. You can think of a digital factory as a construct of ten to 50 teams, squads, pods, whatever the name is. Usually each of these teams will be eight to 12 people, and they'll be working on projects that build the digital capabilities of the organization.

As an example, a common thing for one of these teams to be working on is digitizing a customer journey like credit-card onboarding or small-business account opening. What you'll have is a cross-functional team that comes together for a period of time to reimagine and build something really new for the bank. The team will generally have people from the digital factory, so people like designers, developers, product owners. And it might have some people from the legacy business, which helps with the whole culture change—so people from risk and operations and other parts of the business that are relevant to reimaging this journey.

The teams will work in what we call agile sprints. Every couple of weeks, they build some new part of the journey. They test it with customers, they refine, and they iterate.

Once they have something that they feel is worth testing in the market, they'll create what we call an MVP, a minimum viable product. That will then be tested with a subset of customers and then eventually become the new way of credit-card onboarding or small-business account opening for the bank.

Another common element I see is the factory can be a place where some people maybe go work every day, and other people come a couple of days a week because they're part of a project team. Or maybe people do a rotation through the factory. The factory can often be used as a tool for the broader organization to slowly transform itself, as well, over time.

Joao Dias: One exciting thing I find in digital factories is that yes, there are a number of things that are common across digital factories, but they are also very different. I've seen in a banking client of mine in Europe where they ended up having multiple branches of these factories because they thought it was important to locate the factories relatively close to the businesses that they were supporting. And so you would have factories in multiple cities, in multiple locations, all of them operating under the same rules and the same set of operating principles but located in different places.

Another client of mine, a much smaller organization, a very lean private-equity-owned institution, they ended up creating a digital factory that is very similar to the organization itself. It's also very lean, very small, located in one of the floors of the main building. You can see how the factories end up mimicking the organizations that they belong to.

Barr Seitz: Are there any sectors that are in the lead when it comes to developing digital factories? And why is that the case?

Joao Dias: Let's also be clear that the digital factory is a construct that serves the purpose of initiating and conducting the digital transformation of a business. It's not the only construct for that. We see some sectors that are more developed, and particularly in some companies that are more developed, they end up doing the digital transformation in a much more organic way because their corporate centers already operate in a very agile way. They already have this set of rules applied to the normal company. So they don't need to create this construct on the side. And we've seen that, for example, in banking, in some institutions in Europe.

Some other sectors, like pharma or energy, they tend to be a little bit behind because the customer behavior and the economic pressures are different compared to some of the other sectors. They tend to be in a phase where they do more pilots. Sectors like retail and consumer goods and media have been in the forefront of this for a long time, and you've seen them for a while having large-scale digital factories or even embedded in the organization.

Barr Seitz: If that's the case, are the digital factories that banking, for example, is putting together applicable in terms of lessons that can be used for other sectors, such as pharma?

Rohit Bhapkar: As we've been talking about, a big component and a big reason for doing a digital factory, creating a digital factory, is the culture. The cultural challenge any large, complex, incumbent organization has as they attempt to digitally transform, there are similar challenges whether you're a large bank or whether you're a large telco or whether you're a large oil and gas company. And so I do think the digital-factory construct is an important one to think about across all of those. All of the institutions are going to have to think about how do they recruit, attract, inspire, and retain a new kind of digitally native talent if they're going to succeed going forward?

They're all going to have to think about, when they do attract those people, how do they work in a way that is very, very different than the way they've probably worked for the last 20, 50, 100 years as an organization? This is around being more agile, being more customer centric, leveraging data and analytics in a different way.

In the factories I've seen that work very well, as Joao pointed out earlier, they challenge all of the norms of the organization, all of the existing rules around talent management, around operating model, around ways of working. They're willing to try things and have them fail and then pivot. That kind of mind-set and that kind of environment is required for any organization that's looking to go on this journey, sort of irrespective of what sector they're in.

Barr Seitz: I want to dig into this point that you both have brought up on the idea of culture and how a digital factory can be an incubator for developing it. Rohit, you talked earlier about this idea of a digital factory being a place where you can infect the larger organization.

It's an interesting visual, this idea of a culture farm around the factory, and, in fact, it highlights one of the main purposes of a factory. So, Rohit, could you talk more about how to set up a digital factory so that it really can be an incubator for digital culture?

Rohit Bhapkar: On the first point of how to start one, there are a couple of common things to have in place. One, you need leadership buy-in at the top of the organization, that this is an important piece of an overall transformation and that they're going to be supportive not only in helping invest in and fund the factory but also in helping ensure that the factory is successful. So you need alignment and top-leadership support.

The name "factory" is interesting. With some of my clients, when we've chosen that name versus calling it a lab or an innovation center or something like that, the reason they liked "factory" is because they wanted the stuff that is produced in this construct, in this team, to actually be meaningful and real for customers, employees, and shareholders.

Having them work on things that are aligned with the business strategy and key objectives and top priorities of the business is a second, very important piece of this. If they're just the lab that's working on stuff that nobody will ever see or use, it may be a sexy idea at the beginning, but then it will fizzle out and it won't infect the rest of the organization, as you put it.

Communication is a very important thing to think about in any transformation, especially one like this. How do you make sure people who maybe aren't spending time in the factory understand what is going on there, feel a sense of pride and ownership for what is happening there, rather than maybe envy for what is happening there?

Using these kind of rotational ideas, where people are going to come spend four months, six months, a year working on a project in the factory is very important. Exporting the best ideas from the factory to the rest of the organization is very important, recognizing that the factory will be a test bed for some new ideas and maybe new tools and new types of capabilities, and the ones that really work and we think have relevance at scale, exporting those.

Joao Dias: Some organizations are very, very purposeful about that. So they will have organized programs for the senior group of the company to come and see and to sponsor elements of the digital factory and spend time there and discuss it. One traditional implication that I've seen in many clients is the expansion of agile operating models beyond the digital factory. People see how effective those are, how they help colleagues collaborate, how

they help colleagues focus on the end product that they want to achieve instead of the internal bureaucracies. And so they realize that that is a big unlock for the new culture of the organization, and they start exporting it.

But there are others as well. Things like the design thinking that often comes into a digital factory, and having new skills such as understanding customers and what they want and how to design solutions for them.

Barr Seitz: You've talked very eloquently about how to export ideas from the digital factory into the larger business, but what sort of things can a business put in place to make sure that these ideas that come out of the factory, and are successful there, can really take and have an opportunity to flourish in the broader organization?

Joao Dias: I see three common struggles and three common themes that top managers end up having to take on themselves to support the development of a digital factory and then, as you were saying, the spread of it beyond. One is people. Finding the right leaders for the digital factory, not only at the leadership or at the top of the digital-factory level but beyond that.

That typically means finding people from within who are really scarce, who are the ones who will be needed in other parts of the organization, and therefore makes it a very painful trade-off that needs to happen. Oftentimes, it also means going out to the market and finding new blood to come in, which in some organizations can be painful, as well, particularly organizations that are more used to developing from within.

The second element is mandate and power, if you will—making sure that the digital factory has the set of governance opportunities or governance mandates to execute on what they need to execute. And it goes from very high-level, critical, business-related stuff, like being able to very quickly approve a new sales process that comes out of that digital factory and spread it through the organization or launch a new digital product online.

But also some more mundane and simple decisions arise, such as being able to make changes to an IT system and put it online live in very quick timeframes. Then the third one is, well, it's about money. These digital factories do require resources, and they require funding to be allocated to this. If every single initiative within the digital factory has to go through a traditional funding-request process of a company, the whole digital factory is a nonstarter from the beginning.

So this whole notion of allocating strategically, allocating resources for the digital factory and protecting it, it's an important decision that oftentimes is difficult for top management to do. But in my experience, if you, early on, as a top-management team, grind through these difficult trade-offs and difficult decisions, it paves the way for the digital factories to flourish and then to expand beyond it.

Rohit Bhapkar: A couple of things I'd push folks to think about. One is being very clear about what is the culture change we're trying to create. We can talk a lot about culture and being faster, but I think clarity from the top team on what is the culture shift we're trying to create is very important, and making sure everybody in the organization understands that.

One of my clients framed it as a series of four performance-oriented culture shifts they wanted to make and then four what they called customer-oriented culture shifts they wanted to make.

Then, as Joao alluded to, it's all about leadership. You have to have leaders throughout the organization, at the top of the house and throughout middle management, who are committed to helping drive the change and helping their people through that. The factory can only do so much.

Another piece that the factory can be a big help with is creating symbols or lighthouses of the change we're trying to create. If one of the things you're trying to move is this idea of velocity and building things faster and doing things faster, if the factory can help show that it can be done, it will inspire others in the organization. It will quiet those who say, "Oh, we've never been able to do things in a fast way, and so why would we believe we can do it now?"

Barr Seitz: Rohit, I'm sure you would agree that very few businesses have not already tried something in terms of a digital transformation. Everyone's launching pilots and trying experiments. How would they pivot from what they've been doing to moving toward more of a digital-factory model? And how would you advise them to start?

Rohit Bhapkar: There are a couple of different ways I think about it. One is you can maybe start the factory as a virtual factory, if you will, in that you tie together, like how Joao was describing, a few of the different initiatives that are already going on under the same set of rules and culture and operating model.

The times I've seen where people have made really bold bets on this, it's been around getting a clear sense of what is the mission for the digital factory going to be. In a banking context, you might say the digital factory is there to support the migration of our customers in terms of digital sales, service, and engagement and building the capabilities to support our customers.

In an energy company, you might say, "We want to dramatically increase the level of automation and monitoring that happens in our mines," thinking a little bit about, OK, so what is the talent we need to be able to start to deliver on those things; starting to think about the number of people we'd need, how many of those can come internal, how many can come external; starting to think about, as we talked about earlier, the culture shift we want the factory to help create and what does that mean for the setup; then, as Joao pointed out, thinking about the ring-fenced funding and leadership for the factory and what it's going to require.

Barr Seitz: I really like that point about how important it is to get a clear sense of what the mission is for the digital factory to be successful. And it's a good point for us to end on because I'm afraid we're out of time. Thank you, Joao and Rohit, for joining me for this conversation.

Joao Dias: Thank you, Barr.

Rohit Bhapkar: Thank you, Barr.

Barr Seitz: You can read their article, “Scaling a transformative culture through a digital factory,” on McKinsey.com, and you can keep up with the latest from McKinsey on digital topics by following us on Twitter, @McKinseyDigital. Thank you for joining us today. □

Rohit Bhapkar is a senior partner in McKinsey’s Toronto office, and **Joao Dias** is a partner in the Cologne office. This interview was conducted by **Barr Seitz**, of Digital McKinsey and McKinsey’s Marketing & Sales Practice.