THREE IMPERATIVES TO LEARN FROM YOUR DIGITAL INNOVATION INITIATIVES

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Digital transformation involves a great deal of uncertainty, which companies are starting to mitigate by increasing how much they learn during the process of innovating.[1] Companies are investing in approaches such as A/B testing, sponsoring hackathons, partnering with start-ups, generating minimum viable products, and co-creating with customers.

However, in many companies, only one stakeholder group is enhancing what it learns from its efforts: innovation teams. These teams monitor how three attributes—what is possible with digital technologies, the needs of end users, and what is valuable for the company—interact and evolve to inform further iteration and produce a successful innovation.

The three learning imperatives demand learning within each digital innovation initiative, across the entire portfolio of initiatives, and when developing shared resources.

But two other stakeholder groups also need to learn from digital innovation initiatives[2]: senior executives and experts from corporate functions. Senior executives need to learn how to identify the most strategically valuable initiatives, with the aim of better allocating resources—most notably, scarce talent—to a portfolio of initiatives that addresses immediate opportunities and threats and advances on longer-term strategic objectives. Experts from corporate functions such as legal, risk and compliance, human resources, and IT need to learn from initiatives to identify challenges that are common across multiple initiatives and to build resources that help multiple initiatives make better innovations faster and cheaper.

We have defined three learning imperatives that address a company's needs to learn continually about building (1) a successful innovation, (2) a portfolio of initiatives that realizes strategic objectives faster, and (3) shared resources that propel multiple initiatives. Each learning imperative represents the aim of a specific stakeholder group and the group's approach to learning that best achieves that aim. All three learning imperatives are pursued by collecting data regularly from digital innovation initiatives. The companies we've studied that have successfully tackled these learning imperatives have reported creating more valuable digital innovations for their customers, delivering a higher number of digital innovations without increasing overall effort, reducing time to market through the utilization of shared resources, and reacting more swiftly to changing threats and opportunities while also achieving strategic objectives.

In this research briefing we outline the three learning imperatives and provide examples of how three companies from our research—Posten Norge, BBVA, and Munich Re—are pursuing them to achieve strategic objectives more effectively and efficiently.

1. LEARNING TO BUILD A SUCCESSFUL DIGITAL INNOVATION

MIT CISR research has highlighted the importance of testing and learning in developing a successful digital innovation. More and more innovation teams are taking iterative, test-and-learn approaches and drawing on methodologies such as Agile and design thinking to continually generate insights from past efforts and adapt their next efforts based on what they learned. Without continually learning about key aspects of a successful innovation, a team risks spending resources on innovations that are not useful to end users, are expensive or impossible to scale, and fail to create strategic value for the company.

1 See N. O. Fonstad, "Innovating Greater Vaue Faster by Taking Time to Learn," MIT Sloan CISR Research Briefing, Vol. XX, No. 2, February 2020.

2 A *digital innovation* is a new (from your company's standpoint) or significantly improved offering or capability that relies on digital technologies; for more, see N. O. Fonstad, "Designing a Competitive Innovation Portfolio," MIT Sloan CISR Research Briefing Vol. XVII, No. 7, July 2017. An *innovation initiative* is an investment of resources over time intended to generate value through innovation; for more, see N. O. Fonstad, "Conversations with CISR: Innovating Greater Value Faster," MIT Sloan CISR, video recording, July 10, 2020.

The Nordic postal and logistics group Posten Norge[3] developed an approach to digital innovation called the Helix Model (in reference to changing the company's DNA). Drawing on design thinking, the Helix Model defines a valuable innovation as one with the greatest overlap of three attributes: it is (1) *desirable*—customers/end users want it; (2) *feasible*—Posten Norge can provide it; and (3) *viable*—it makes business sense. The Helix Model also defines the process that an innovation team must follow, which entails three phases of learning: Explore, Create, and Implement. In each phase, the innovation team generates a distinct set of insights that helps determine whether the team will advance to the next phase and, if so, what they do next. The approach has discouraged teams from pursuing innovations of little or no value and increased the likelihood that they will create competitively advantageous innovations.

This first learning imperative details why an individual innovation team needs to learn from its own efforts. Senior executives and experts from corporate functions need to learn from multiple initiatives—which is what the second and third imperatives are about.

2. LEARNING TO BUILD A PORTFOLIO OF INITIATIVES

Senior executives need to build and maintain a portfolio of digital innovation initiatives that helps advance a diverse set of long-term strategic objectives while also addressing unanticipated needs that suddenly arise due to changes in the business environment. The executives must choose which innovation initiatives receive resources and how many. This is a challenge because senior executives may be unaware of how initiatives relate to strategic objectives and KPIs, and they don't know how initiatives will evolve after funding—or how the business environment will evolve.

Companies we've studied learned to build and maintain a valuable portfolio of initiatives by standardizing the information strategic initiatives provide and how often they provide it. Executives evaluate innovation initiatives at frequent intervals, based on updated business cases (i.e., reassessments of costs and benefits), to inform resource allocation changes.

At BBVA,[4] executives require that business cases for new initiatives be expressly linked to corporate-level strategic objectives and related KPIs. They developed a "project canvas" (a form of business case) that every strategic innovation initiative updates quarterly. Each project team reports on the output it delivered and its value, using metrics that are common across the bank. The team also reports on its plans for the next quarter, including needed talent. The project canvases enable executives to produce each quarter an updated holistic view of their portfolio of initiatives that is linked to strategic objectives. Executives learn, among other things, how deliverables from initiatives relate to strategic objectives, how changes in talent relate to the performance of initiatives, and how changes to the portfolio influence some strategic objectives more than others.

As they learn, executives improve at assessing value, coaching initiatives to develop more realistic and effective business cases and execution plans, and prioritizing initiatives based on those plans. Consequently, they get far better at quickly reallocating resources—most notably scarce talent—among initiatives as needs change.

3. LEARNING TO BUILD SHARED RESOURCES

Most digital innovation teams prefer to innovate autonomously to maintain speed and agility. But some corporate functions—such as IT architecture, which has an interest in maintaining simplicity in operations—are keen to coordinate initiatives in order to address challenges that are common across them with a shared set of reusable resources. Many IT architects try to proactively build resources that all initiatives can use—for example, a platform of shared digital services. But because initiatives evolve in unanticipated ways, shared resources and initiatives' needs often become misaligned, and the resources end up hindering initiatives more than helping them. To avoid this, owners of shared resources need to learn continually about both initiatives' challenges and what makes shared resources sufficiently valuable to warrant the costs to initiatives and the company for developing and maintaining them.

One way companies help owners of shared resources learn more from initiatives is to change how the owners engage with initiatives. For example, a company can appoint IT architects to co-lead initiatives, then have the owners of shared resources learn from the architects about common challenges of the initiatives and the value of shared resources. Based on their learnings, the resource owners can develop and maintain the resources in an iterative manner. The resulting shared resources are more likely to add value—by helping initiatives get innovations to end users faster, reducing the cost of or making it easier to scale an innovation, or enhancing the user experience—and for not just one, but many initiatives.

Munich Re[5] invests in dozens of initiatives concurrently, generating new sources of revenue by delivering insurance-as-a-service.

3 From N. O. Fonstad, "Innovating with Greater Impact at Posten Norge," MIT Sloan CISR Working Paper No. 440, January 2020.

4 From N. O. Fonstad and J. Salonen, "Four Changes: How BBVA Generated Greater Strategic Value," MIT Sloan CISR Working Paper No. 452, October 2021.

5 From N. O. Fonstad and M. Mocker, "Munich Re: Building a Foundation for Innovating Digital Offerings," MIT Sloan CISR Working Paper No. 445, August 2020.

In 2018 the company created a unit called Business Technology that helps innovation initiatives build digital offerings by providing shared expertise and reusable digital components. Business Technology assigns an IT architect to each of the most valuable initiatives as its "initiative chief technology officer," or iCTO. The iCTO and a business-side product owner act as co-founders of the initiative, with the iCTO drawing on digital technologies to build deliverables. Initiative CTOs share experiences with each other to identify challenges common across multiple initiatives and work closely with Business Technology to help build and maintain a platform of shared digital services. To assess whether services continue to add value to initiatives, Business Technology links each service to KPIs (e.g., time to market, better customer experience, cost reduction) that reflect the service's value to initiatives and guide its adaptation—for the betterment of not just individual initiatives but the entire company.

LEARNING TO LEARN MORE FROM INITIATIVES

The three learning imperatives demand learning within each digital innovation initiative, across the entire portfolio of initiatives, and when developing shared resources. Figure 1 summarizes the imperatives. Pursuing the imperatives will likely require a company to change its approach to developing digital innovations, how and how frequently it assesses initiatives, and how those providing shared services interact with initiatives. The reward for these efforts is an organization that uses resources more efficiently and continuously creates greater value from digital innovations for customers and the organization. Companies simply can't afford not to learn more from digital innovation initiatives.

Figure 1: Three Learning Imperatives

LEARNING TO BUILD:

To what extent ...	Who learns?	What do they need to learn?	What is the risk of *not* learning?	Key learning mechanisms
A successful digital innovation				
... is our digital innovation fulfilling an important need of users in an economically viable way?	Each individual digital innovation team	• The most important needs of end users, what is possible with digital technologies, and what is viable for the company	• Innovations will not be valuable to end users, feasible and scalable, or viable	• Hypothesis-based testing and co-creation in cross-functional teams, using Agile and design thinking methodologies
A portfolio of initiatives				
... is our company achieving its strategic objectives by means of a portfolio of digital innovation initiatives?	Senior executives responsible for prioritizing and allocating resources and for realizing the company's strategic objectives	• How all strategic digital innovation initiatives across the company relate to strategic objectives over time	• Resources get allocated based on criteria such as budget rather than value • The company cannot respond quickly to sudden opportunities and threats in ways that also advance longer-term strategic objectives • Portfolio gets imbalanced over time and unsustainable	• Learning regularly from initiatives based on standardized data • Funding in stages
Shared resources				
... do our shared resources help multiple initiatives to thrive?	Those responsible for developing shared resources that help multiple initiatives	• Common challenges faced by initiatives and how to address them with shared resources • How service-level agreements of shared resources relate to the strategic interests of multiple initiatives	• Each initiative duplicates effort • Initiatives, because they are required to use less relevant resources, are hampered rather than helped	• Responsibility for initiative shared by initiative CTO and business-side product owner • Owners of shared resources learn regularly from initiative CTOs • Linking shared resources to initiative KPIs (e.g., time to market, cost reduction)

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