

Three snapshots of digital transformation

Financial services, food retailing, and pharma are reinventing themselves in different ways.

As companies grapple with the different dimensions of digitization highlighted in McKinsey's latest research (see "The case for digital reinvention," forthcoming on McKinsey.com), here are snapshots of three industries in the eye of the storm: financial services, food retailing, and pharma.

The first highlights the impact of new digital entrants on products and services in banking; incumbents will either need to compete head on or use their financial muscle to move into adjacent markets. The second offers an example of how retailers can use digital means to increase efficiency in the supply chain, thereby buying time before taking more radical action to deal with disruptors. And in the third, new research in pharma highlights the importance of digital self-awareness and the scope to improve performance by better connecting digitally with patients and physicians.

FINTECH: THE WIDENING SCOPE OF PRODUCTS AND SERVICES

Over the past decade, fintech companies—technology firms that focus on financial products and services—have forced incumbents to rethink their core business models and embrace digital innovations. Now fintechs themselves are maturing and entering a period of rapid change.

Where once these companies focused on payment applications, lending, and money transfers, for instance, the industry's reach has extended into more than 30 areas (Exhibit 1). The shift brings fintechs away from a focus on

frontline activities to a broad engagement throughout the value chain. The new offerings cut across a wide swath of financial services: retail, wealth management, small and midsize enterprises (SMEs), corporate and investment banking, and insurance.

Technologies vary from robo-advisory systems that provide automated recommendations with little human input to the more experimental blockchain systems that track and store an expanding series of transactions to help reduce infrastructure costs. Fintechs, meanwhile, are also moving beyond addressing a customer’s financial needs to offering a wider range of services, blurring the industry’s boundaries. Holvi Payment Services, a Finnish start-up acquired by Spanish financial group Banco Bilbao Vizcaya Argentaria in 2016, began by offering banking services to SMEs and expanded to provide complementary offerings, such as an online-sales platform, bookkeeping services, expense-claims systems, and a cash-flow tracker.

Exhibit 1

We see more than 30 tech-enabled areas emerging as new norms in banking.

Retail

- Next-generation personal financial management
- Peer-to-peer lending and investment
- New digital lending
- Aggregator comparison engine

Wealth management

- Robo-advisory
- Social investing
- Crowdfunding
- Investment across regions engine

Insurance

- Telematics
- Social integration
- Internet of Things and connected devices
- Prevention

Payments

- Mobile payments
- International remittances
- Mobile point-of-sale devices
- Other payment processing

Operations and infrastructure

- Blockchain
- Application programming interface ecosystem
- Payment infrastructure
- Big data base risk assessment
- Anti-money laundering and know your customer
- Artificial intelligence and machine learning
- Cybersecurity

Capital markets, investment banking

- Next-generation trade finance
- Trading
- Next-generation collateral management
- Trade analytics

Small and midsize enterprises

- One-stop shop for businesses
- Peer-to-peer corporate lending and investment
- Next-generation lending to small and midsize enterprises
- Digital cash management

Beyond banking

- Digital for the unbanked
- Digital model reinventors
- Next generation digital marketing
- Virtual marketplace
- Retail value chain and coupons

Source: Panorama by McKinsey



For the full article, see Miklos Dietz, Vinayak HV, and Gillian Lee, “Bracing for seven critical changes as fintech matures,” on [McKinsey.com](https://www.mckinsey.com).

FOOD RETAILING: DISTINCTIVENESS IN THE SUPPLY CHAIN

Fresh food is becoming a challenging battleground in grocery retail as discounters, convenience-store chains, and online players recognize the power of fresh-food categories to drive store visits, basket size, and customer loyalty. Retailers constantly have to make difficult trade-offs in the supply chain: order too much, and the food goes to waste; order too little, and they lose sales and erode customer loyalty. With demand fluctuating daily, how can they know the right amount to order?

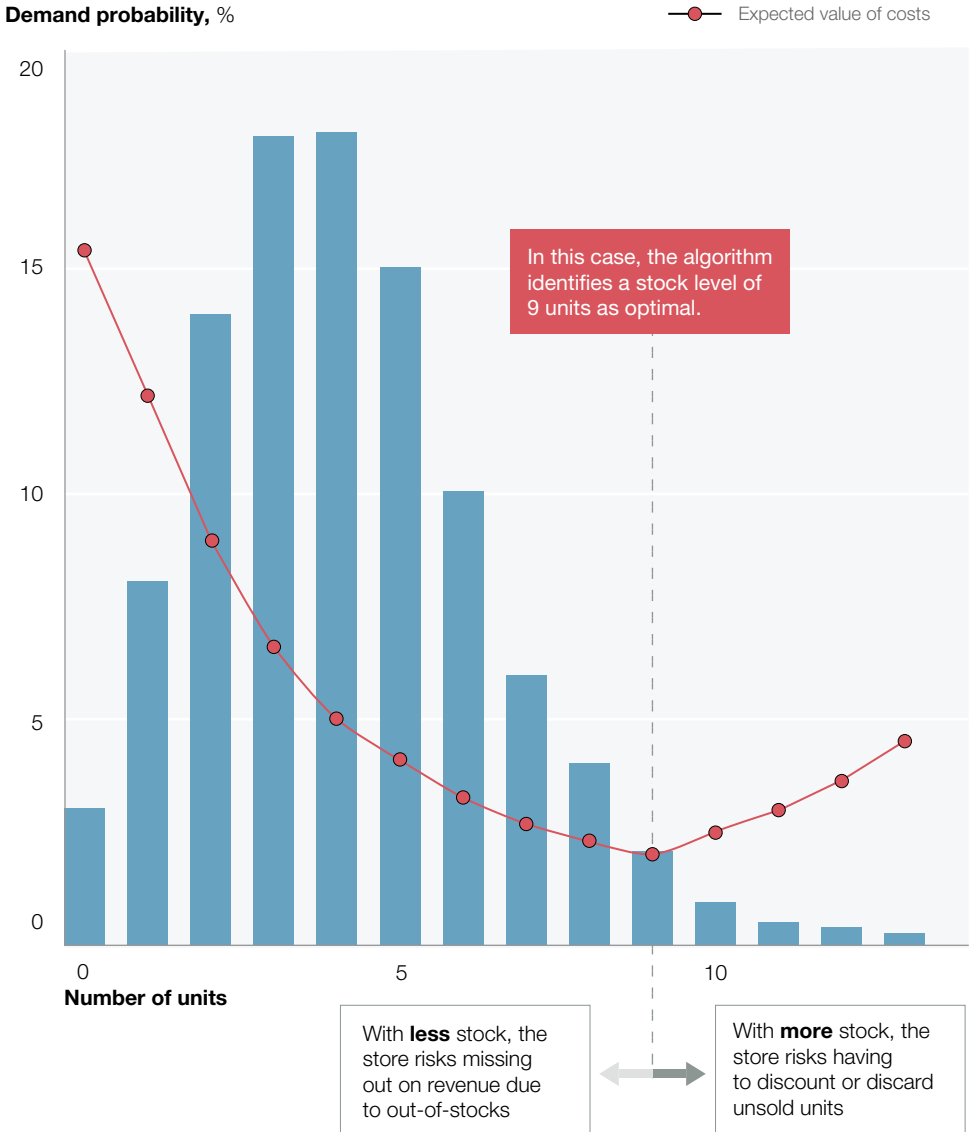
A number of leading players are now revolutionizing their planning through machine learning. Based on algorithms that allow computers to “learn” from data even without rules-based programming, machine learning allows retailers to automate formerly manual processes and dramatically improve the accuracy of forecasts and orders. Retailers that use machine-learning technology for replenishment have seen its impact in many ways—for instance, reductions of up to 80 percent in out-of-stock rates, declines of more than 10 percent in write-offs and days of inventory on hand, and gross-margin increases of up to 9 percent.

The histogram in Exhibit 2 shows the demand probability for a specific SKU-store-date combination, in this case, pineapples in Store #123 on June 10. The vertical bars show that stocking four pineapples in that store on that day will probably be enough to meet demand; the store will likely sell most or all of them, so the risk of having rotten pineapples in the store is small. But what if a customer wants to buy a fifth or sixth pineapple that day? The store would lose out on revenue because pineapples would be out of stock. The green curve on the exhibit represents the expected value of costs for each stock level, taking into account potential loss of revenue due to out-of-stocks, as well as potential markdowns and waste. In this case, the algorithm identifies a stock level of nine units as optimal.

The system can align individual ordering decisions with the retailer’s strategic goals and key performance indicators (KPIs). For instance, if the retailer is more concerned about margins than revenues, the algorithm will adjust decisions accordingly. It can also work toward improving several KPIs at the same time.

Exhibit 2

Machine-learning algorithms help retailers determine optimal stock levels, taking into account both waste and lost sales.



For the full article, see Christoph Glatzel, Matt Hopkins, Tim Lange, and Uwe Weiss, "The secret to smarter fresh-food replenishment? Machine learning," on McKinsey.com.

PHARMA: BETTER CONNECTIONS TO THE CUSTOMER

Healthcare is no exception to the way digital technology is transforming business. Nearly 70 percent of US consumers use an online channel to manage health and wellness, more than 50 percent of US healthcare providers use three or more connected devices professionally, and one in five of the top pharma companies now has a chief digital officer or equivalent. That said, the pharma sector is dramatically lagging behind other industries in digital performance.

McKinsey's Digital Quotient (DQ) assessment tool measures maturity across four categories (strategy, culture, organization, and capabilities) and 18 management practices ranging from agility and customer focus to governance and connectivity. Using a 100-point scale, the exhibit shows pharma's score of 27 lags behind the average of 33 across all sectors. It even trails other highly regulated businesses, such as banking (32) and insurance (31) and is closer to those of sectors that historically have been digital laggards, including the public and social sectors (Exhibit 3).

When pharma companies look to create a digitally savvy organization, many will focus on building digital and data-analytics capabilities and seeking partnerships to deliver new services or insights. Indeed, many industry leaders believe that this analytics gap is what holds them back in realizing their digital strategy. In fact, our assessment shows that specific elements of their strategy, culture, and organization will likely need addressing.


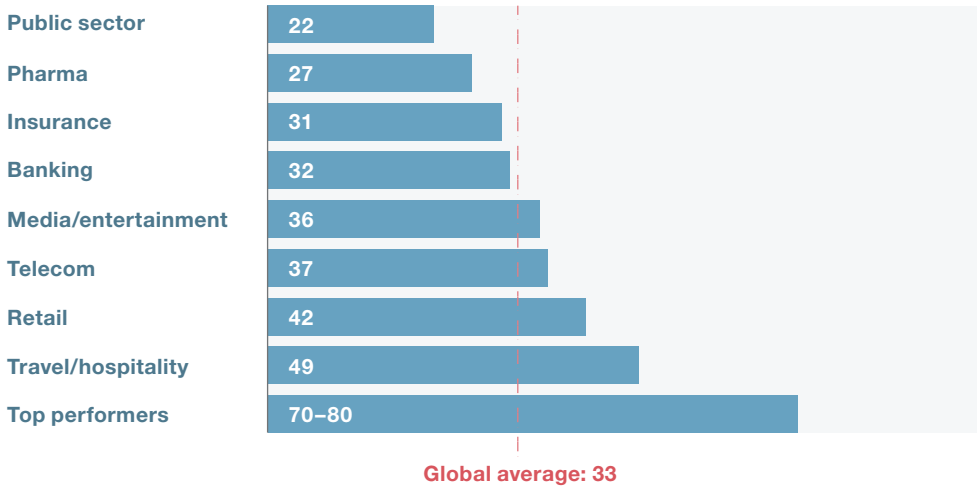
For example, pharma's DQ scores revealed a consistent lack of a customer orientation, indicating that companies pay too little attention to the customer decision journeys that patients and healthcare providers undertake to access, interact with, and benefit from their products; we call these CareFlows. Nearly 40 percent of pharma companies admit they do not understand these journeys well enough to map digital touchpoints and align them with their digital strategy. Organization tends to be a much larger barrier in pharma than in other sectors: indeed, pharma is twice as likely as other companies to score lowest on organizational dimensions. Specific issues include understanding digital trends at leadership level, clarity in roles and responsibilities, transparency of digital spending, and alignment of organizational structures with digital strategy. 

Exhibit 3

Digital maturity varies significantly by sector.

Distribution of Digital Quotient (DQ) score¹ by industry (global), points, out of 100



¹ DQ score is an average across 4 equally weighted dimensions: culture, strategy, capabilities, and organization.



For the full article, see Brian Fox, Amit Paley, Michelle Prevost, and Nisha Subramanian, "Closing the digital gap in pharma," on McKinsey.com.

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