

The Digital Metamorphosis of Three Industries

The Rise of the Next-Generation Telco

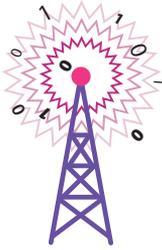
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The \$6 trillion global telecommunications industry has been buffeted by digital technology over this decade. For wireless providers, average revenue per user (a key indicator) fell 34% globally between 2006 and 2017,⁹⁶ in spite of trillions of dollars of investments in network infrastructure around the globe. Said another way: Telcos' ability to harvest profits from their infrastructure spending is fading. The core services they provide—wireless telephony, Internet connectivity, data—are commodities that no longer generate strong returns.

Having recognized this, communication service providers are adapting. Digital products and services have become a major revenue source this decade, according to a new TCS survey

⁹⁶ PwC report, based in part on data from TeleGeography, published 2018. Accessed Aug. 20, 2019. <https://www.strategyand.pwc.com/media/file/Grasping-at-differentiated-straws-v2.pdf>

of executives at 60 European and North American telcos. These firms, part of a broader survey of 1,010 IT executives in 11 industries, are sizable: 80% had revenue of \$1 billion or more and 23% topped \$20 billion. Their revenue from digital businesses, products, and services is going up: from 45% on average in 2010 to 59% in 2018. As Figure 21 shows, the telecommunications industry by this measure ranked second among the 11 sectors we studied.

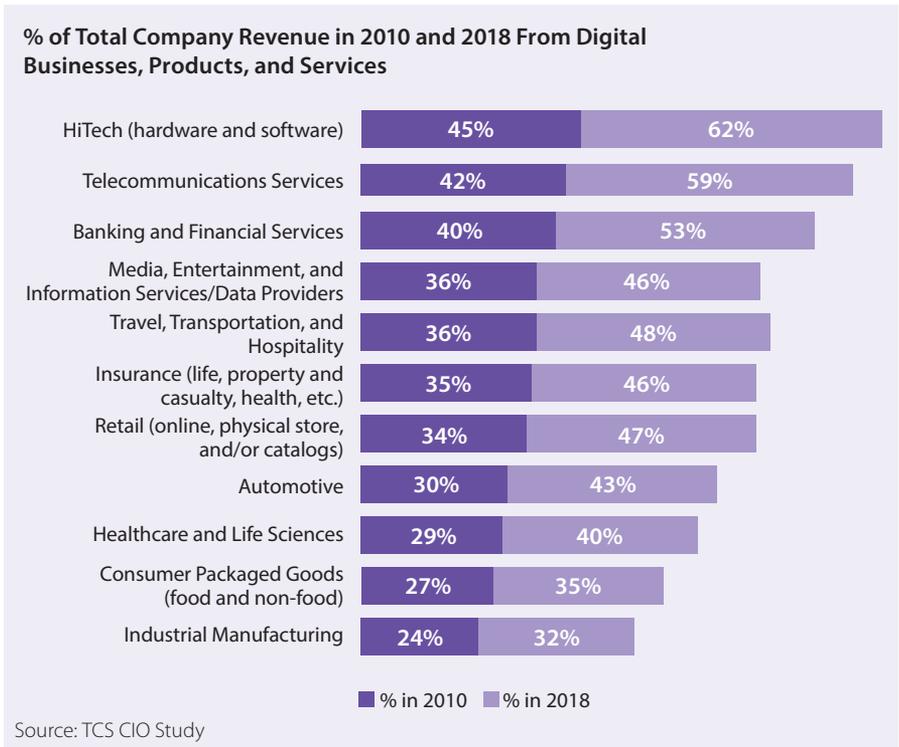


Figure 21: Revenues from Digital Business by Industry, Growth in This Decade

The latest generation network will unleash new applications of digital technology—services that can connect and improve the way people and companies operate.

CSP leaders know they now compete in a digital ecosystem with a widening array of competitors. The entertainment industry can use a CSP's pipes to create a new business model. Technology firms can build customer pleasing apps that help consumers navigate, shop, and buy. And all industries can use CSP services to develop new customer experiences, from B2C advertising to B2B logistics.

But at the same time CSPs face clear challenges and rising competition, the digital ecosystems in which they operate present a plethora of opportunities. CSPs have a strong set of core capabilities—providing connectivity and collecting massive amounts of data on the performance of their networks.

The key differentiation for telcos is their ability to steer and manage network traffic in real-time, cognizant of end consumer's digital service context, so that the end customer experience is assured. This requires telcos to derive insights on customer experience in the digital ecosystem, be it whilst using home automation services or enjoying immersive reality entertainment services, and anticipate the demands they place on the network. Data from customer devices, channels, and network platforms plays a pivotal role in helping telcos derive insights and drive AI-led anticipatory actions.

From this and other data, telcos have the capability to create a bevy of lucrative new products and services. However, it will require a cultural change from top to bottom for many

of them—starting with understanding what business they are really in. “In the past 20 years, we as an industry have actually made a huge pivot from being 95% in a vertical industry dominating communications businesses to being a horizontal business that is the underlying platform for almost anything that society now and especially in the future needs,” says Christoffer von Schantz, senior vice president, strategy and M&A, at the Finnish telco DNA.⁹⁷

To seize the opportunities, telcos need to view their investments in 5G networks not solely for the speed and performance they offer customers, but also as a chance to offer services beyond voice, data, and video. The latest generation network will unleash new applications of digital technology—services that can connect and improve the way people and companies operate. Telcos need to make their play in such fields because if they don’t, others are likely to encroach—from Apple, Facebook, Netflix, and Google, to new digital disruptors.

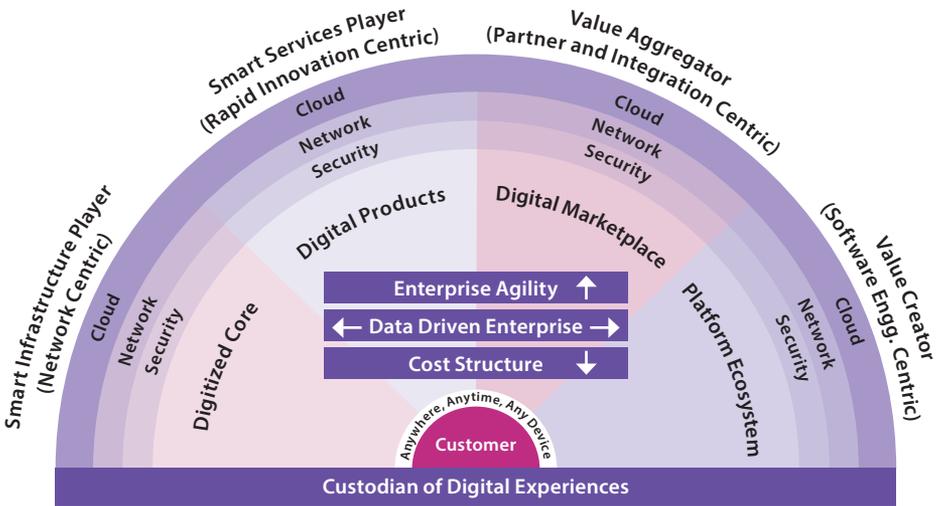
⁹⁷ Harvard Business Review Analytic Services sponsored by TCS, “Making the Smart Call: Telcos Plot Their Digital Future,” 2019, accessed August 14, 2019. <https://www.tcs.com/making-the-smart-call-telcos-plot-their-digital-future-from-hbr-tcs>.

Four Strategies to Compete

Telecommunication firms can't control every element of the digital ecosystems in which they play. These ecosystems generate value because multiple companies participate in them. They require relinquishing some control to enter, and for all stakeholders to gain.

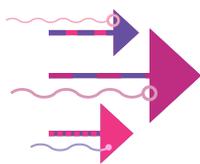
CSPs can use their core capabilities in high-speed connectivity, data, and video to establish themselves as what we call 'custodians of digital experiences'. They can use these capabilities to provide digital marketplace products and services and move beyond being solely connectivity providers.

Specifically, we see four strategies that CSPs can take:



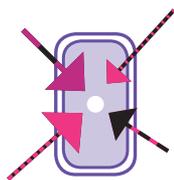
Source: TCS CMI Industry Advisory Research

Figure 22: The Four Strategic Choices for CSPs to become Custodians of Digital Experiences



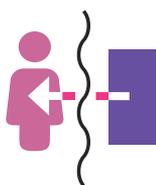
Smart connectivity provider. These communications companies would leverage advanced software and communications networks to provide ultra-fast internet services. Having software-driven networks that use AI, predictive analytics, and more automation allows these companies to provide better networks. The goal: to

create self-healing networks that automatically anticipate and take action to prevent network congestion and security breaches without human intervention. Says an executive at one multinational telco: “The dream is to get rid of the person who has to press the button to switch the traffic or to send a (a person) out to repair a line when it’s down.”



Smart services and products provider. In this role, CSPs would sell services to enterprise customers that take advantage of connectivity, Internet of Things, and business applications.

For example, Comcast’s Smart Office service performs physical surveillance of offices. For the consumer market, telcos have many opportunities as well. Comcast has developed a digital dashboard (Xfinity xFi) that personalizes the consumer’s experience and helps her manage her Wi-Fi network and connected home services. BT has been selling wi-fi home security cameras for several years in its UK market, capitalizing on its trusted and well-recognized brand⁹⁸.

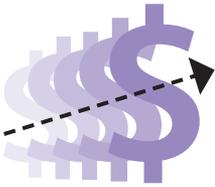


Value aggregator. Here, a telco would be a middleman between consumers and companies that provide content and services in digital marketplaces. Excelling at this strategy requires a superior digital customer experience through hyper-personalization, omnichannel integration, and service innovation.

⁹⁸ Forbes article, Aug. 5, 2019. Accessed Aug. 20, 2019. <https://www.forbes.com/sites/marksparrow/2019/08/05/bts-home-security-cam-is-easy-to-set-up-but-needs-more-resolution/#7d3e6a61178b>

AT&T, for example, has a service for health care providers to consult with patients via video chats. Rogers Communications (Canada) and Telefonica (Germany) have launched initiatives in digital banking services.

The keys for CSPs pursuing this strategy: Making these services work for customers, rather than the CSP focusing on managing its own products. Forming and managing digital partnerships with other companies—and excelling at these relationships—will differentiate one CSP from another.



Value creator. CSPs pursuing this strategy develop digital services platforms that they can sell to other channels. Here, a telco becomes a software-centric (rather than network-centric) firm. Japanese telco NTT Docomo, for example, is developing a carrier billing and payment system. Saudi Telecom is targeting financial services, media, and enterprise IT services with a digital wallet service called STC Pay. The company is also launching its media service (called OTT), and building a new IT platform to support a new metro transportation system in Riyadh.

The Importance of Mastering One Strategy

CSPs face a big choice as they decide how to advance from purveyors of commodity-level pipelines to providing more valuable products and services enabled by digital technologies and data analytics. We believe the key is to select one of the four strategies above—and master it.

Any of these strategies are likely to require cultural change that breaks functional silos and builds innovation capabilities. Telco leaders know they must move quickly

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to implement these changes because of the competitive environment. Thirty-two percent of telcos in North America and Europe said they see their most formidable competition between now and 2025 to be digital-native firms, according to a TCS survey of CIOs. And 45% expect their toughest competitors to be new digital companies that aren't here yet, but will be by 2025. Only 23% said they see their stiffest challenges coming from established rivals.

Companies in any industry pursuing an ecosystem strategy also must be aware of their strengths. Telcos have one in the huge amounts of digital data, generated continually by their networks. Consider the location data that telcos could harness, with customer's permission, to

create new information services. A telco could use its data and network expertise to help marketers personalize offerings to customers depending on whether they're at work (i.e., offering coupons for a nearby lunch restaurant) or out with family (i.e., cinema vouchers for all).

From our research with CIOs, telcos recognize the opportunity. Sixty-one percent said top management thinks about digital opportunities in ecosystem terms among a group of companies whose digital initiatives were more advanced than average, 61% of these 'digital leaders' who worked at telcos said they capitalize on customer data better than their competitors. And they're listening: Among the most important types of data for the future of their business is how customers view them and what they are interested in

buying. Some 80% of telcos said mining customer data to improve products and services will be a key growth driver.

At the same time, our research shows that telco leaders have opportunities to do more by analyzing customer data. A TCS survey of 516 chief marketing officers in North America and Europe, including 33 from telcos, found that only a minority are taking full advantage of their rich data sources. Only 42% use geo-location data to personalize brand awareness marketing messages and only 40% use this data

to personalize messages in post-sale customer support. Additionally, half use geo-location in up-selling and cross-selling customers.

Clearly there's an opportunity here. Those telcos that succeed in digital ecosystems will be using these, and other data sources, to develop new products and services, as well as determine how to build their platforms for growth. The telco executives in our CMO research recognize this. By the end of 2020, 64% of them believe it will be of critical, or high, importance to use data and analytics based on customers' geo-location to provide a superior brand experience.