Digitization Drives Schumpeterian Change

Idea In Short

Digitization drives productivity and profits, but the gains are uneven. Industries that lag in digital adoption pay less and grow slower. Assess where your industry falls on the digital spectrum and act aggressively to close the gap.

The Digital Divide

McKinsey published a 120-page report on the digitization of America. The two main arguments may seem obvious at first glance. Digitization drives productivity, and those gains are shared unevenly across industries, companies and people. The report tells the story of the digital divide between the haves and the have-mores. Moore's Law has driven productivity for more than 30 years, and waves of technology stretch back long before the microprocessor to figures like Archimedes, Ptolemy, Faraday and Marconi. The question for executives is not whether digitization matters but where their industry falls on the spectrum and what to do about it.

Digitization Drives Profits

Technology drives innovation, new products, better applications and improved allocation of fixed assets. McKinsey demonstrates that over a 20-year time frame, the profit margin of non-financial industries grew from 5.6 percent to 9.0 percent. Those gains were not shared evenly. IT manufacturing, media and IT services grew profits most spectacularly. Telecom growth fell as older technology was cannibalized by cell phones and voice over internet protocol [VoIP]. The pattern reflects Michael Porter's industry attractiveness framework, where structural differences determine which sectors capture value. What stands out is how management consultants can take an immeasurably broad topic like digitization and make it readable. It is all storytelling. 1 The narrative turns amorphous data into actionable insight.

Bucketing the Complexity

For anything vast, chaotic, interrelated, complex or messy, one of the key tenets of consulting is bucketing. Bucketing forces thinkers to isolate the drivers, assumptions, trends and outliers. McKinsey does exactly that by breaking down the data, building it back up with hypotheses and testing those recommendations. This is standard consulting fare, and it works because it imposes structure on complexity. The first thing McKinsey does is categorize digitization into three major buckets: assets, usage and people. Each can be broken down further. The sectors are then rated by level of digitization from high to low. Sectors with lots of green are highly digitized, while those in yellow and red are not. Judging by share of gross domestic product [GDP] and employment, many of the laggards, especially government and healthcare, have the most to gain marginally from digitization.

The Less Digital, the Less It Pays

The correlation between digitization and wages is striking. Digitization equals productivity, which equals higher value per asset, per person and per hour, which equals higher wages. Industries that lag in digital adoption pay less and offer less upside wage potential. Executives in red-coded industries face a critical question. Are they change agents driving technology into an analog, slower-growth industry, or are they coasting? Do they love the industry enough to accept lower profits and wages? The data suggests that sitting still is not a neutral choice. It is a choice to fall behind.

Power Shifting to Platforms and Consumers

In the old model, the manufacturer or supplier held the asset and the power. That has changed. Platforms like Facebook, LinkedIn and Airbnb create value from synthesis, comparison and navigation of choice. In the United States, abundance is so extreme that the real scarcity is time. Platforms and digital intermediaries save people time, from Yelp to Uber. Platform economics combine low marginal costs with the growth from network effects. McKinsey notes that within 10 years, Facebook amassed more users than the population of China. 2 Low cost plus network effects equals hyper growth. Traditional intermediaries get disrupted. Insurance brokers and travel agents are disappearing. From 2000 to 2014, online travel booking increased tenfold while the number of agents dropped by half.

Peak Digitization and the Robot Question

Digitization drove enormous growth in the 1990s and less in the 2000s. McKinsey admits that productivity in the United States slumped dramatically in the 2000s, raising the question of peak digitization. The recovery from recessions tells a sobering story. It took 15 months to restore lost jobs after the 1991 recession, 39 months after 2001 and 43 months after 2008. Large companies now respond to downturns by pushing to improve productivity through cutting employment rather than increasing output and innovation. 3 Some of this messaging is depressing. Too frequently, companies get more productive not by creating more output but by reducing human inputs. The thinking goes that since market share is fixed, the only lever is cost reduction. This is generally uninspired thinking, and you cannot cut your way to prosperity.

Smart Supply Chain and Better Resource Use

The Internet of Things [IoT] holds the promise that connected devices will improve lives through tracking data, getting smarter over time and optimizing usage. Consumers are just tasting this now with Google's Nest and Tesla cars. Large industrial companies like General Electric, Siemens, Philips and Rolls Royce have done remote diagnostics and smart connected devices for decades. McKinsey makes a bold prediction that digitization can boost US GDP by $2.2 trillion, with a significant portion from a smarter supply chain. In the macroeconomic formula for GDP, which is consumption plus investment plus government spending plus net exports, much of that is supply chain. Every product bought at a store has changed hands hundreds of times, traveling from factory to boat to train to truck to warehouse to shelf.

The Have-Mores Keep Moving

In true Schumpeter style, the application of technology continues to evolve. Just as the late majority picks up on technology, the chasm moves again. Technology helps people and companies run faster, with or without you. The have-mores continue to push the boundaries of digitization, particularly in augmenting what their workers do, while everyone else scrambles to keep up. Large companies buy startups rather than funding basic research, acquiring both vetted technology and the people behind it. These valuations are not cheap and are susceptible to hype and bubbles, as seen with unicorns valued at $1 billion or more. The imperative for executives is clear. Identify where you fall on the digital industry spectrum, question whether you are a change agent and act before the gap becomes unbridgeable.

- 1McKinsey Report On Digitization Of The US Economy
- 2McKinsey On Platform Economics And Network Effects
- 3McKinsey On Productivity, Employment And Downturns

Summary

Digitization creates Schumpeterian change where the haves pull ahead and the laggards fall behind. Profits, wages and platform power flow to the digitized. Assess your position on the spectrum, question assumptions and act. You cannot cut your way to prosperity.