
THE DIGITAL SPRINTERS

How to unlock a
\$3.4 trillion opportunity

Prepared by AlphaBeta
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THE DIGITAL SPRINTERS:

HOW TO UNLOCK A \$3.4 TRILLION OPPORTUNITY

THE CHALLENGES OF TRANSITIONING DIGITAL CONNECTIVITY INTO ECONOMIC GROWTH

Economic growth has not kept pace with digital penetration. The Digital Sprinters represent approximately

19% OF INTERNET USER GROWTH BUT ONLY 7% OF GLOBAL REAL GDP GROWTH

since 2013

For the Digital Sprinters, increased internet penetration has not led to dramatic productivity gains. For example,

INTERNET USER GROWTH HAS OUTPACED LABOR PRODUCTIVITY GROWTH BY 15 TIMES

since 2013

Digital adoption can vary by **MORE THAN 2X** across different sectors within one country



THE VALUE OF DIGITAL TECHNOLOGIES TO EMERGING ECONOMIES



Digital technologies could create an

ANNUAL POTENTIAL OPPORTUNITY OF UP TO USD3.4 TRILLION

in economic impact across 16 important emerging economies in Latin America, Eastern Europe, Africa & the Middle East – the “Digital Sprinters”, in 2030

Surprisingly,

47% OF POTENTIAL BENEFITS

of digital technologies accrue to sectors such as resources, infrastructure and agriculture – not services



12 POLICY LEVERS CAN UNLOCK THE DIGITAL OPPORTUNITY FOR ECONOMIC DEVELOPMENT

LEAD FROM THE TOP

1 Steer the direction

Drive change through the public sector

4 Create tipping points through government procurement

5 Go 100% digital on government services

6 Crowd source policy innovation

2 Coordinate across government

Equip the private sector with the digital essentials

7 Craft regulations for the digital, not analog era

8 Build future-proof digital infrastructure with interoperability and upgrading in mind

9 Equip MSMEs with the digital tools to support their growth

10 Use co-creation, the sharing economy and new digital incentives to stimulate innovation

3 Support global digital integration

Put citizens at the center of the digital economy

11 Support those who could be left behind by the digital transformation

12 Equip people with the right skills to access digital opportunities

EXECUTIVE SUMMARY

“ THIS WILL REQUIRE MORE SOPHISTICATED POLICIES AROUND UTILIZING TECHNOLOGIES DIFFERENTLY AND A SHIFT IN FOCUS FROM INCREASING THE NUMBER OF INTERNET USERS TO ENABLING AN ACTIVE DIGITAL ECONOMY WITH “DIGITAL WORKERS AND INNOVATORS, DIGITAL BUSINESSES AND DIGITAL GOVERNMENT. ”

Digital technologies can be a powerful catalyst for improving incomes, productivity and economic growth. There is much evidence on how developed countries have leveraged digital transformation in the way products and services are produced, distributed and consumed. From rolling out autonomous robots on factory floors, to purchasing groceries online, to consuming entertainment on mobile devices, this digital transformation has increased efficiency across the developed world. However, evidence suggests that simply focusing on generating access to digital technologies, such as driving internet penetration, is not sufficient to leverage their benefits. Emerging economies will need to go beyond simple digital penetration to fully integrate and leverage available digital technologies to drive economic development. This will require more sophisticated policies around utilizing technologies differently and a shift in focus from increasing the number of internet users to enabling an active digital economy with “digital workers and innovators, digital businesses and digital government”. This report aims to understand the potential economic benefits of unleashing the full digital technology benefits in a number of important emerging markets and identify the policies to help realize that potential.

Internet penetration (as evidenced by rising internet use) has seen significant uptake globally. Yet, this increase in digital connectivity has not led to the transformation of productivity and economic growth, and improvements in livelihoods anticipated in academic literature. As Nobel laureate Robert Solow observed, “you can see the computer age everywhere but in the productivity statistics”. This became known as the “Solow Paradox”. More recently, some observers have argued that the same paradox exists with regard to digital technologies.¹ While digital technologies have penetrated most aspects of our lives, it is not yet clear how this translates into fundamental increases in productivity. From 2013-17, more than one billion people have started using the internet globally, reaching 4.1 billion users.² There is strong evidence that internet penetration is closely linked with productivity, at least at the firm level. Yet, over the last decade, economic productivity growth has been slower than over the previous decade. Global labor productivity grew at an average annual rate of 2.9 percent between 2000-07, compared to 2.3 percent between 2010-17. Many factors may have contributed to this, in particular the aftershocks of 2008’s global financial crisis resulting in persistently weak demand and uncertainty. It is definitely arguable that the penetration of digital technologies may have helped the world economy recover faster. However, the expected drastic transition of digital connectivity into productivity and economic growth has not occurred.

This poses a particular challenge for emerging economies. Productivity is a crucial driver of long term economic development³ and many emerging economies have focused on boosting broadband penetration, anticipating spillovers into economic development. Despite having made significant progress in internet penetration, these countries’ share of global growth is lagging behind their share of global internet user growth. Evidently, driving penetration is not sufficient to boost economic development if unsupported by policy that enables full utilization of digital technologies. Following the adverse impacts of COVID-19, capturing this potential digital dividend becomes ever more crucial. The aim of this report is to understand how emerging economies can fully leverage digital technologies for economic development. This report focuses on 16 important emerging economies (which we dub the “Digital Sprinters”). These are Argentina, Brazil, Chile, Colombia, Egypt, Israel, Kenya, Mexico, Nigeria, Peru, Russia, Saudi Arabia, South Africa, Turkey, the United Arab Emirates and Ukraine. They include six of the ten largest economies in both the Latin America and Middle East & Africa regions, as well as three of the five largest non-high-income economies in Europe. Together, these “Digital Sprinters” account for 13 percent of GDP, 16 percent of population and 19 percent of internet users globally.

The report identifies the following key messages:

1 In the Digital Sprinters, fast growth in internet penetration has not translated into faster economic growth.

Historically, economic growth in the Digital Sprinters has not kept pace with internet adoption. Together, the Digital Sprinters represent approximately 19 percent of internet user growth but only 7 percent of global real GDP growth since 2013. In absolute terms, the number of internet users in the 16 economies from 2013-18 has grown annually more than 15 times faster than average labor productivity. Despite internet user growth of 9.2 percent in these markets, labor productivity increased only minimally at 0.6 percent and GDP per capita by only 0.1 percent. There are also large variations in digital technology adoption rates between sectors (even within the same economy).

2 If the transition from digital penetration to economic growth could be fully leveraged, digital technologies could transform economic development in these emerging markets.

Across the 16 economies, the annual economic impact of selected key technology applications in ten sectors could reach up to **USD 3.4 trillion by 2030** (equivalent to about 26 percent of the estimated combined GDP of these economies in 2030). Surprisingly, 47 percent of the total potential opportunity estimated in this report in 2030 is in industrial sectors and agriculture, not services. In particular, the resources sector is forecast to account for only 12 percent of the total GDP of the Digital Sprinters in 2030; however, it could drive 26 percent of the digital opportunity. These sectors are also those where there is often limited adoption of digital technologies to date. Closing this gap in digitalization between sectors is crucial to realizing the economic development benefits of these technologies.

1. There are a number of explanations and theories, for this paradox, also referred to as the “productivity puzzle”, which have been discussed at length in the literature: i) mismeasurement of outputs and inputs; ii) lags due to learning and adjustment, adoption barriers, and transition costs; iii) redistribution and dissipation of profits, i.e. cannibalization of incumbent revenues; and iv) Mismanagement of information and technology (i.e. inability to harness the digital benefits). For more detailed expositions of the re-emergence of the paradox in the digital age see McKinsey & Company (2018), “Is the Solow Paradox back?”, McKinsey Quarterly. Available here: <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/is-the-solow-paradox-back#> and McKinsey Global Institute (2018) Solving the productivity puzzle: The role of demand and the promise of digitization. Available here: <https://www.mckinsey.com/featured-insights/regions-in-focus/solving-the-productivity-puzzle>

2. World Bank (2016), World Development Report 2016: Digital Dividends and sources within. Available at: <https://www.worldbank.org/en/publication/wdr2016>

3. McKinsey Global Institute (2018) Solving the productivity puzzle: The role of demand and the promise of digitization.

Available at: <https://www.mckinsey.com/featured-insights/regions-in-focus/solving-the-productivity-puzzle>

3 12 policy levers linked to four strategic imperatives are crucial to go beyond digital penetration and capture the digital benefits linked to economic development.

A thorough review of impactful, innovative and practical digital policies identified a number of important levers for capturing the digital-led economic development opportunity:

STRATEGIC IMPERATIVE 1:

LEAD FROM THE TOP

These policy levers are concerned with setting the right direction for the digital transformation of the economy. They entail elevating digitization to be a top national agenda item, developing concrete sector-level plans to guide progress, and improving coordination. As a result, different to the other three imperatives, these levers tend to be cross-cutting across several sectors. Specific policy levers include:

1. **Steer the direction.** From the outset, governments should create a clear plan, roadmap or national strategy for digitization with accountability residing at senior levels of government.
2. **Coordinate across government.** Create government mechanisms to coordinate digital policies across sectors with strong public and private sector champions.
3. **Support global digital integration.** Engage in active knowledge sharing and setting of standards and effective digital trade rules to enable growth in sectors.

STRATEGIC IMPERATIVE 2:

DRIVE CHANGE THROUGH THE PUBLIC SECTOR

These levers leverage the position of government to directly drive the adoption of technology in the public sector as well as establishing public sector provisions that facilitate digital transformation for the private sector and citizens. Specific policy levers include:

1. **Create tipping points through government procurement.** Use government procurement to scale promising digital technologies to drive them down the cost curve.
2. **Go 100% digital on government services.** Digitize relevant government services (e.g. going "cloud native") and support digital interactions with citizens for services in that sector (e.g. digitizing tax filings or utility bill payments).
3. **Crowd source policy innovation.** Encourage sharing of government data and establish collaborative platforms to spur innovation on public policy.



STRATEGIC IMPERATIVE 3:

EQUIP THE PRIVATE SECTOR WITH THE DIGITAL ESSENTIALS

Having established a clear direction for leveraging digital for economic development, these policy levers are focused at enabling the private sector to obtain the maximum benefits from digital technologies. Specific policy levers include:

1. **Craft regulations for the digital, not analog era.** Go beyond adjusting regulations for a digital economy in an ad-hoc manner to actively experimenting with new regulatory approaches (e.g. regulatory sandboxes) enabling firms to explore new digital products and services.
2. **Build future-proof digital infrastructure with interoperability and upgrading in mind.** Going beyond universal broadband access to support investment in critical infrastructure (including 5G networks) requires new approaches, with a strong focus on developing mechanisms to create shared and interoperable infrastructure.
3. **Equip MSMEs with the digital tools to support their growth.** Work with MSMEs to help them understand the benefits of adoption and tackle specific barriers through model learning factories and socialization programs.
4. **Use co-creation, the sharing economy and new digital incentives to stimulate innovation.** Co-create products and services with the private sector; develop regulatory models to support sharing economy models, and rethink R&D incentives for a digital era.

STRATEGIC IMPERATIVE 4:

PUT CITIZENS AT THE CENTER OF THE DIGITAL ECONOMY

Preparing individuals for this digital era requires going beyond just providing broadband access, but instead focusing on innovative ways to provide individuals with the necessary skills and also to support behavior change. Specific policy levers include:

1. **Support those who could be left behind by the digital transformation.** Rethink social protection mechanisms so that they protect workers and not jobs, repurpose existing infrastructure to support digital access, and go beyond simple information campaigns to use behavioral science to spur greater adoption of digital technologies and change usage patterns.
2. **Equip people with the right skills to access digital opportunities.** Enhance the responsiveness of the curriculum, target talent in the diaspora, embed technology in the classroom, and introduce digital bootcamps (short-term, focused education courses, which are run by employers can be crucial to fill in necessary skill gaps).

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TRANSLATING DIGITAL TECHNOLOGIES INTO BROAD-BASED ECONOMIC DEVELOPMENT WILL BE ONE OF THE CRUCIAL POLICY MAKING CHALLENGES OF THE 21ST CENTURY. UTILIZING THE 12 POLICY LEVERS HIGHLIGHTED IN THIS REPORT CAN HELP GUIDE POLICYMAKER EFFORTS MOST EFFECTIVELY. THE SPECIFIC IMPLEMENTATION OF THESE POLICY LEVERS COULD LOOK VERY DIFFERENT IN EACH COUNTRY, DEPENDING ON THE COUNTRY CONTEXT (E.G. REGULATORY PROCESSES, HISTORY OF ENGAGEMENT WITH THE PRIVATE SECTOR, ETC.). HOWEVER, ALPHABETA'S RESEARCH PROVIDES A NUMBER OF INNOVATIVE POLICY LEVERS AND GLOBAL BEST PRACTICE EXAMPLES THAT COULD BE CONSIDERED IN COUNTRIES' ONGOING 'DIGITAL SPRINT'.

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For more detailed information on the research, please refer to the full report at:
<https://alphabeta.com/our-research/the-digital-sprinters-capturing-a-us34-trillion-through-innovative-public-policy/>



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