THE DIGITAL SPRINTERS: THE CASE OF SAUDI ARABIA

> SAUDI ARABIA COULD UNLOCK AN ADDITIONAL USD318 BILLION OF ECONOMIC IMPACT FOR 2030 THROUGH SUPPORTIVE POLICIES THAT ENABLE FULL UTILIZATION OF DIGITAL TECHNOLOGIES.

Globally, there has been a large increase in policy focus on the digital transformation of economy, society and government. This has led to significant uptakes in internet penetration (as evidenced by rising internet use). For example, from 2010 until 2018 Saudi Arabia has successfully brought an additional 52 percent of its population online.[1] This increased connectivity mostly stems from mobile broadband internet.[2] In the recently formulated National Transformation Program 2020, the Saudi Arabian government has decided to expand broadband services to all regions, targeting to increase the provision of fibre-to-home technology from 44 percent of its urban areas in 2016 to 80 percent by end of 2020.[3] However, more than providing access to the internet may likely be required to leverage digital technologies for economic development to the fullest potential. Saudi Arabia could reach a potential annual (year-on-year) economic impact of up to ***USD318 billion in 2030*** *through supportive policy that enables full utilization of digital technologies.[4] Given the need to rebuild economies following the impact of COVID-19, the importance of capturing this potential digital dividend becomes ever more crucial. This research by economic strategy firm AlphaBeta (commissioned by Google) aims to understand how emerging economies can fully utilize digital technologies to achieve gains in economic development. The report focuses on 16 important emerging economies (which we dub the "Digital Sprinters"). These economies are Argentina, Brazil, Chile, Colombia, Egypt, Israel, Kenya, Mexico, Nigeria, Peru, Saudi Arabia, South Africa, Russia, Turkey, the United Arab Emirates and Ukraine. Together, these "Digital Sprinters" account for 13 percent of GDP, 16 percent of population and 19 percent of internet users globally.*

Based on this research, a number of insights across the Digital Sprinters emerged, that are of relevance to Saudi Arabia and are summarized in this document. More details can be found in the full report.[5]

1. Based on World Bank, World Development Indicators.

2. Oxford Business Group (2019), "Rollout of expanded broadband in Saudi Arabia progresses rapidly". Available at: https://oxfordbusinessgroup.com/analysis/broad-appeal-broadband-network-expanding-rapidly-though-fixed-connections-are-far-0

3. Saudi Vision 2030, "National Transformation Program 2020". Available at: http://www.arabia-saudita.it/files/pages/2014/05/ntp_en.pdf

4. These estimates refer to the value generated by 39 technology applications across 10 sectors in 2030, quantified based on a "Full adoption" scenario (i.e. 100 percent adoption). This implies that these ten sectors will become "Digital leaders" with significant leap-frogging. A "Full adoption" scenario is unlikely to be realistic but useful as a thought experiment and to frame the total opportunity.
Estimates do not represent GDP or market size (revenue), but rather a combination of economic impacts such as productivity gains, increased revenues and cost savings. The relevant technology applications by sector and their sources of value (e.g. reduced wastage in production, enhanced consumer offerings) were identified based on a detailed review of the academic literature. The exact sizing methodology is unique to each of the 39 technology applications, but estimates use a series of international and country-specific case studies for each technology application to quantify estimates. Across the 39 estimations economic indicators sourced from international organizations such as the World Bank, International Labor Organization, OECD and national statistics offices were used.
Detailed data sources and estimation methodologies for each of the 39 applications are listed in the Appendix to the main report, linked here https://alphabeta.com/our-research/the-digital-sprinters-capturing-a-us34-trillion-through-innovative-public-policy/

5. This research was prepared by AlphaBeta for Google. All information in this summary and the main report was derived from AlphaBeta analysis using both proprietary and publicly available research, data and information. Google does not endorse any estimates.

In Saudi Arabia, as in most of the Digital Sprinters, fast growth in internet penetration has not translated into a faster pace of economic growth.

Historically, economic growth in Saudi Arabia has not kept pace with internet adoption. For example, since 2013, Saudi Arabia's internet population has grown by 11.6 percent annually, but real GDP has only increased by 2.2 percent annually.[6] Labor productivity has also declined by 1.3 percent annually during this same period.

If the transition from digital penetration to economic growth could be fully leveraged, digital technologies could transform economic development in Saudi Arabia.

This research identifies eight groups of digital technologies with significant potential to enhance economic development. In the hypothetical scenario where applications based on the eight digital technologies in ten sectors are fully adopted, the combined annual economic impact in Saudi Arabia could reach up to ***USD318 billion in 2030***, which is about 31 percent of the country's estimated GDP in 2030 (see Exhibit 1). About 70 percent of the ***potential benefits of digital technologies accrue to traditional sectors, namely resources, infrastructure and agriculture.***

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 review of impactful, innovative and practical digital policies identified a number of important levers for capturing the digital-led economic development opportunity (see Exhibit 2).

While it is unlikely that all 12 policy levers will be applicable to the Saudi Arabian context, a number of innovative policy levers could be considered.

POLICY LEVER 1:

CO-CREATE NEW PRODUCTS AND SERVICES WITH THE PRIVATE SECTOR

Governments and the private sector could work together to leverage their respective expertise to co-create mutually beneficial products. While such ventures can be highly mutually beneficial, they can also be difficult to implement. For example, private sector players may often lack trust in government and regulatory uncertainty could be a significant barrier for cooperation. To mitigate these challenges, clear guidelines on cooperation and avoidance of non-competitive lock-in of supply of products and or services are required.

POLICY LEVER 2:

LEVERAGE CLOUD COMPUTING FOR EFFICIENCY GAINS ACROSS THE GOVERNMENT

Cloud technology, in particular cloud storage and cloud computing power, is an enabling technology that could be utilized for different applications. Cloud computing technologies across government could lead to significant efficiency gains and cost savings for governments' ICT budgets. Currently, Saudi Arabia's Ministry of Communications and Information Technology has put forward a "Cloud First Policy" which encourages government entities to consider cloud solutions first for every new IT investment which is expected to provide around 30 percent cost savings of total cost of ownership.[7]

POLICY LEVER 3:

IMPLEMENT TARGETED TRAININGS, SOCIALIZATION AND BEHAVIORAL LEVERS FOR TECHNOLOGY ADOPTION

Targeted training initiatives can be effective at exposing MSMEs to new sector-relevant digital technologies, as well as developing their skills, and driving adoption. Trainings can be developed in partnership with solution providers. Sweden's Digilyft Kickstart program which aimed to support industrial companies to make use of digital technology through raising awareness is an example of how such initiatives can be effectively driven by governments in close cooperation with industry bodies.[8]

POLICY LEVER 4:

CREATE ONE STOP-SHOPS FOR OPEN DATA

Open data—machine-readable data that is made available to others—has generated a great deal of excitement around the world for its potential to drive innovation through Research and Development (R&D) in the private and academic sectors. One of the key complexities of using existing open data is that it can be housed in multiple locations. Having a single portal to access information can play a crucial role in disseminating data. Singapore, for example, operates an Open Data Resources portal that provides access to an array of government data from over 70 public agencies, direct developer support and special sub-portals for more niche data.[9]

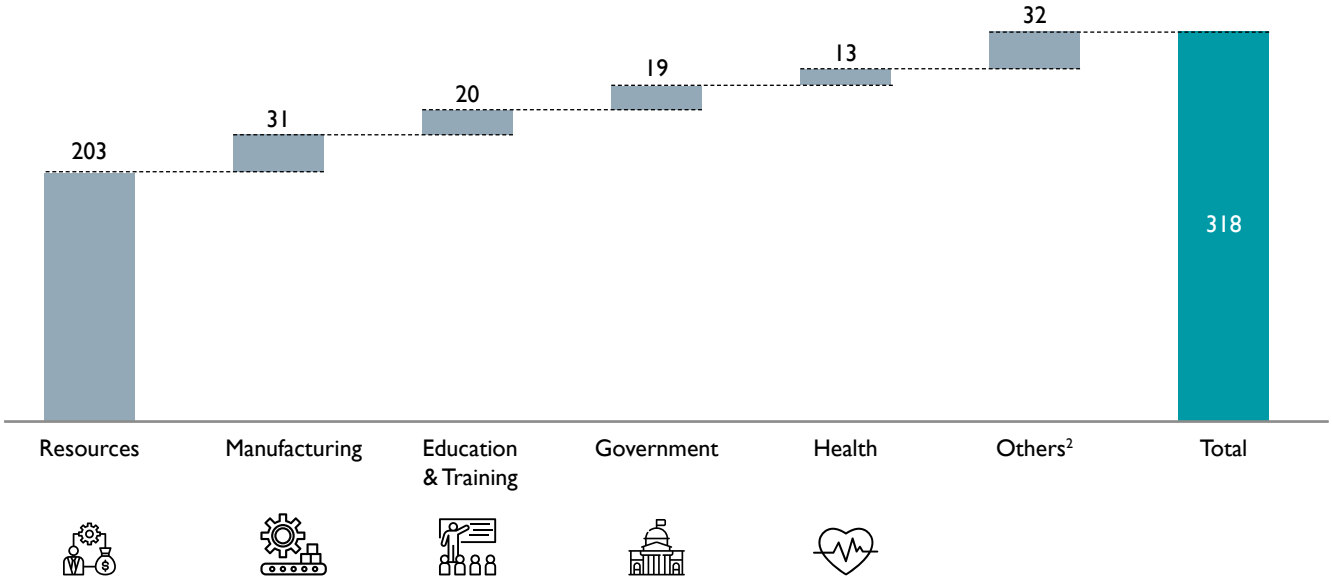
TO BE CONTINUED ON PAGE 4

6. Based on World Bank, World Development Indicators.
7. Ministry of Communications and Information Technology, Saudi Arabia
8. 13 Readie and Nesta (2018), Delivering Digital Skills – A guide to preparing the workforce for an inclusive digital economy. Available at: https://media.nesta.org.uk/documents/Readie_Digital_Skills_booklet_online.pdf
9. See Smart Nation Singapore – Resources – Open Data Resources. Available at: https://www.smartnation.sg/resources/open-data-resources

EXHIBIT 1: THE VALUE OF DIGITAL TECHNOLOGIES

POTENTIAL ANNUAL ECONOMIC IMPACT IN THE FULL ADOPTION SCENARIO

USD BILLION, 2030 (HIGH-END ESTIMATES)[1]



1. These estimates do not represent GDP or market size (revenue), but rather economic impact, including GDP increments, productivity gains, cost savings, time savings, increased revenues, increased wages and increased tax collection.
2. Others include Agriculture & Food; Consumer, Retail & Hospitality; Financial Services; Infrastructure, and Mobility.
SOURCE: AlphaBeta analysis

EXHIBIT 2: POLICIES TO CAPTURE THE VALUE OF DIGITAL TECHNOLOGIES

LEAD FROM THE TOP

1 Steer the direction	2 Coordinate across government	3 Support global digital integration
Drive change through the public sector	**Equip the private sector with the digital essentials**	**Put citizens at the center of the digital economy**
4 Create tipping points through government procurement	7 Craft regulations for the digital, not analog era	11 Support those who could be left behind by the digital transformation
5 Go 100% digital on government services	8 Build future-proof digital infrastructure with interoperability and upgrading in mind	12 Equip people with the right skills to access digital opportunities
6 Crowd source policy innovation	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	

While it is unlikely that all 12 policy levers will be applicable to the Saudi Arabian context, a number of innovative policy levers could be considered.

POLICY LEVER 5:

ESTABLISH PLATFORMS TO INTERACT AND CROWD-SOURCE INNOVATION

Innovations to improve government services can come from anyone and anywhere; governments should engage and empower citizens to participate in this process. One such example is Bangladesh's "Innovation for All (a2i)" fund. The fund provides financing for home-grown innovations to leverage digital innovation to solve policy problems. Tam Development, a Forbes-recognized Saudi Arab-based startup, has proven that crowd-sourced innovation could work after successfully co-creating 50 local and regional ground-up programs with 20 government entities in the Saudi Arabia and the Arab region.[10]

POLICY LEVER 6:

ENCOURAGE A SHARING ECONOMY FOR NON-SERVICES SECTORS

Sharing of fixed assets (e.g. equipment, warehouses) that reduces fixed costs by transforming them into ongoing variable costs is enabled by digital technologies such as the Internet of Things. However, much of the innovation to date has been in service sectors (e.g. car sharing, home sharing), with limited traction in traditional sectors such as manufacturing and agriculture. An example is Hello Tractor which works with smallholder farmers in Africa by aggregating smallholder farmers' requests for tractor service on behalf of tractor owners, while providing enhanced security through remote asset tracking and virtual monitoring.[11]

POLICY LEVER 7:

INTRODUCE DIGITAL BOOTCAMPS

Short-term, focused education courses, which are run by employers can be crucial to fill in necessary skill gaps. Where attempts at such bootcamp-based interventions can fall short is when national (or international) programs fail to focus on the local job market context and opportunities. Multinational tech companies can partner with governments and local industry on the provision of training in such bootcamps. For example, Google runs "Bangkit" – an academy developed in collaboration with local unicorns Go-Jek, Tokopedia and Traveloka to train and produce high-caliber digital talent for Indonesian technology companies and start-ups.[12]

POLICY LEVER 8:

REPURPOSE EXISTING PUBLIC INFRASTRUCTURE TO PROVIDE DIGITAL ACCESS

Public infrastructure can be repurposed to provide access to the internet for underserved communities. For example, "Biblionet" is a national program which tackled Romania's "broadband divide" between urban and rural areas by providing hardware, software and IT support for 2280 public libraries which had well established infrastructure and geographical coverage.[13]

POLICY LEVER 9:

COOPERATE ON STANDARDS

Standards are crucial to not only ensure some minimum safeguards for safety and security, but also to ease the ability to transact. Adopting international legal security standards not only assists governments in the development of their own security frameworks, but also provides comfort and reassurance to organizations. Further, it decreases the barriers for domestic firms to export as their security standards are likely to already comply with international markets. Saudi Arabia's involvement in developing 5G standards is also encouraging as it ensures timely commercial testing and rollouts of 5G applications with telecom operators.[14]

POLICY LEVER 10:

DEVELOP DIGITAL TRANSFORMATION (INNOVATION) CENTERS AND MODEL (LEARNING) FACTORIES

These refer to physical places where entrepreneurs, business owners, researchers and innovators can come to try their hands at new technologies and digital applications. Successfully implementing such initiatives requires strong industry engagement to ensure stakeholders see the benefits of the collaboration, adopting a rigorous approach to identifying the key technologies and sectors to focus (not neglecting traditional sectors such as textile manufacturing), and ensuring there are clear frameworks governing the use of the intellectual property generated. Examples of such initiatives include Chile's Digital Extension Centers and Germany's Mittelstand 4.0 Competence Centers.

POLICY LEVER 11:

LEVERAGE DIGITAL SERVICES FOR ACCESS TO ECONOMIC NECESSITIES

Providing a tangible service (such as access to energy) that requires customers to sign up for and start using a digital platform (for example e-money, i.e. mobile money and prepaid cards) can demonstratively drive digital inclusion. One example is from the Ivory Coast where in 2011 the Ministry of National and Technical Education (MENET) began collaborating with mobile money and digital payment providers to digitalize annual school registration fee payments.[15]

10. TAM, Available at: https://tamhub.com/
11. Hello Tractor, Available at: (https://www.hellotractor.com/about-us/
12. Google Indonesia (2020), "Bangkit", Events. Available at: https://events.withgoogle.com/bangkit/
13. European Union (2018) "Biblionet", Shaping Europe's digital future – Projects. Available at: https://ec.europa.eu/digital-single-market/en/content/biblionet
14. EY (2019), "Unlocking the digital economy potential of the Kingdom of Saudi Arabia"
15. GSMA (2017), Embracing the Digital Revolution – Policies for Building the Digital Economy.
Available at: https://www.gsma.com/publicpolicy/wp-content/uploads/2017/02/GSMA_DigitalTransformationReport2017_Web.pdf

FOR MORE DETAILED INFORMATION ON THE RESEARCH,
PLEASE REFER TO THE FULL REPORT AT:
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