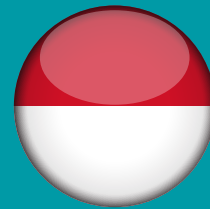


SKILLS FOR THE FUTURE: CAPTURING THE ECONOMIC OPPORTUNITY OF DIGITAL SKILLS IN INDONESIA

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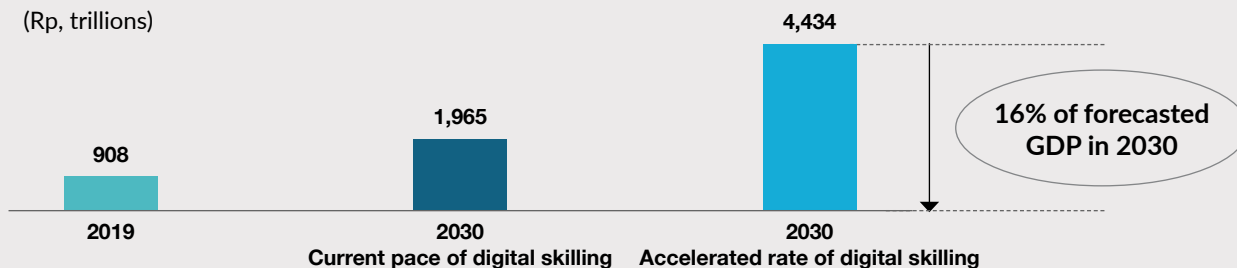


INDONESIA'S DIGITAL SKILLS OPPORTUNITY



**A DIGITALLY SKILLED WORKFORCE CAN CONTRIBUTE
RP 4,434 TRILLION (US\$303 BILLION) TO INDONESIA'S GDP BY 2030**

GDP CONTRIBUTIONS OF DIGITALLY SKILLED WORKFORCE
(Rp, trillions)



**THE DIGITAL SKILLS AGENDA COMPRISES 3 AREAS OF ACTION –
EACH WITH INTERNATIONAL BEST PRACTICES**

EQUIP THE CURRENT WORKFORCE WITH DIGITAL SKILLS



Established through a public-private partnership, Sweden's "Digilyft Kickstart" program enhances digital adoption by MSMEs in the manufacturing sector

1

PREPARE THE NEXT GENERATION OF WORKERS



Finland's "phenomenon-based teaching and learning" system seeks to cultivate "soft skills" such as independent and critical thinking

2

BROADEN DIGITAL ACCESS TO ALL



United Kingdom's "Future Digital Inclusion" program provides targeted digital skilling opportunities to underserved communities to boost their digital literacy and employability

3

GOOGLE PLAYS AN IMPORTANT ROLE IN THE COUNTRY



Google has trained **OVER 1.8 MILLION** small and medium businesses in digital marketing skills through the "Gapura Digital" and "Women Will" training initiatives under its "Grow with Google" program and supported **OVER 550,000**

Indonesian women leverage technologies to build their own business



The "Grow with Google" program in Indonesia has helped **OVER 320,000** small business owners weather the COVID-19 pandemic by equipping them with digital tools



In 2019, Google's applications supported over **RP 165 TRILLION** (US\$11.3 billion) worth of **consumer benefits¹**, and **RP 185 TRILLION** (US\$12.7 billion) in **direct business benefits²**

1. Consumer benefits were estimated for the following Google products: Search, Google Maps, Drive, and Google Play
2. Business benefits were estimated for the following Google products: Search and Ads, AdSense, and Google Play

EXECUTIVE SUMMARY

Digital skills are crucial for Indonesia's success in the 21st century. Despite possessing many of the elements considered advantageous to rapid economic growth such as a rich natural resource base, a young population and a growing services sector, the country's annual GDP growth rates have largely remained at 5 percent over the past five years.¹ This is below the government's growth target – recently downgraded from 7 to 6 percent.² To achieve a 7 percent per annum growth rate to 2030, a past study has shown that the country's labor productivity will need to grow by 60 percent more than the increase achieved in the period of 2000-2010.³ Digital skills will form a major component of this.

Not only are digital skills essential for workers in the technology sector, they are also important for traditional sectors. Digital skills will be just as important in Indonesia's non-technology sectors such as manufacturing and professional services, where companies are increasingly seeking to adopt new technologies to improve their productivity. A recent survey revealed that almost a quarter (22 percent) of Indonesian employers expect entry-level candidates to be computer literate.⁴ Ensuring that all firms benefit from digital skills is also important in Indonesia given that micro, small and medium enterprises (MSMEs) constitute 99 percent of all enterprises and contribute to over 60 percent of the national GDP.⁵ This is particularly crucial

given that low access to skilled labor has been cited by the country's MSME employers to be one of the largest barriers to scaling up.⁶

This study aims to address the economic significance of digital skills in Indonesia. Despite a range of literature on the productive opportunity posed by digital technologies for Indonesia's economy, there is limited research on the economic value of digital skills – both within and outside of the technology sector. To address this knowledge gap, the report assesses the value of digital skills by evaluating the GDP contributions of digitally skilled workers across all sectors and levels of digital skills.

This study finds that at an accelerated pace of skilling, digitally skilled workers can contribute Rp 4,434 trillion (US\$303.4 billion) to Indonesia's GDP by 2030. This is a significant value that could account for 16 percent of total forecasted GDP that year. By comparison, digitally skilled workers contribute an estimated 6 percent of GDP today.

The key messages of this report include:

- **Digitally skilled workers are an important driver of Indonesia's economy today – and not just in the technology sector.** Today, digitally skilled

1. International Monetary Fund (2020), "Real GDP growth."

Available at: <https://www.channelnewsasia.com/news/business/indonesia-economy-targets-up-to-6-percent-gdp-growth-5-years-11750214>

2. Channel News Asia (2019), "Indonesia's planning ministry targets up to 6% GDP growth in next 5 yrs."

Available at: <https://www.channelnewsasia.com/news/business/indonesia-economy-targets-up-to-6-percent-gdp-growth-5-years-11750214>

3. McKinsey Global Institute (2012), The archipelago economy: Achieving Indonesia's growth potential. Available at: https://www.mckinsey.com/--/media/McKinsey/Featured%20Insights/Asia%20Pacific/The%20archipelago%20economy/MGI_Unleashing_Indonesia_potential_Full_report.ashx

4. Yunnice Marzuki (2017), "Indonesian employers expect entry-level talent to have digital skills: LinkedIn." Digital New Asia.

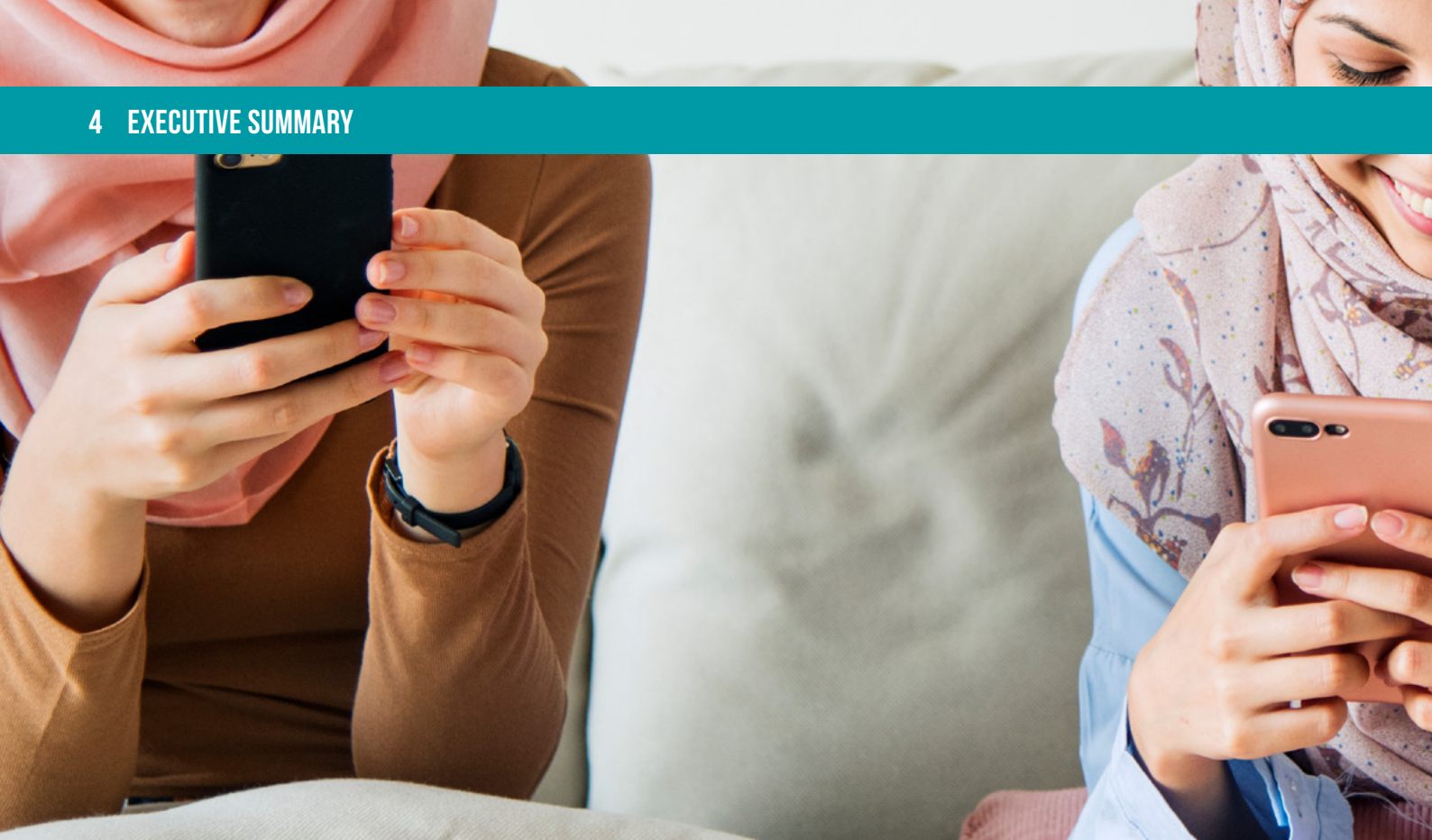
Available at: <https://www.digitalnewsasia.com/digital-economy/indonesian-employers-expect-entry-level-talent-have-digital-skills-linkedin>

5. Ministry of Cooperatives and SMEs, Indonesia (2018), Perkembangan data usaha mikro, kecil, menengah (UMKM) dan usaha besar (UB) tahun 2016 – 2017.

Available at: http://www.depkop.go.id/uploads/laporan/1549946778_UMKM%202016-2017%20rev.pdf

6. Asia Pacific Foundation of Canada (2019), 2018 survey of entrepreneurs and MSMEs in Indonesia.

Available at: https://apfcanada-msme.ca/sites/default/files/2018-10/2018%20Survey%20of%20Entrepreneurs%20and%20MSMEs%20in%20Indonesia_0.pdf



workers in Indonesia contribute an estimated Rp 908 trillion (US\$62.1 billion) to the country's GDP annually. This is equivalent to about 6 percent of Indonesia's GDP in 2019. Contrary to conventional belief that much of this value is likely to be driven by the technology sector, almost three quarters (73 percent) of this value comes from non-technology sectors such as manufacturing and professional services.

- **Sectors that are more resilient to the COVID-19 pandemic are also those with a stronger presence of a digitally skilled workforce today.** The sectors that have been projected to be least impacted by the pandemic are also those that experience the highest relative GDP contributions from digitally skilled workers. In more COVID-resilient sectors such as the financial services, professional services and media and publishing sectors, such workers currently contribute 7 to 11 percent of the overall GDP. On the other hand, in less COVID-resilient sectors, such workers – which make up a smaller percentage of the workforce – account for lower GDP contributions ranging from 3 percent (in the transport services and hospitality sectors)

to 5 percent (in the retail sector). This indicates that workforce digital skills are potentially important in driving business resilience during the pandemic.

- **With the right level of support, digitally skilled workers can contribute Rp 4,434 trillion (US\$303.4 billion) to Indonesia's GDP by 2030.** Based on current digital skilling trends, the value of digital skills in the country is projected to reach Rp 1,965 trillion (US\$134.5 billion) in 2030. However, there is an opportunity for the country to go even further. By 2030, if Indonesia accelerates its digital skilling rate, such workers could bring an estimated Rp 4,434 trillion (US\$303.4 billion) worth of GDP contributions to the country's economy.⁷ This is Rp 2,469 trillion (US\$168.9 billion) larger than the projected value based on the country's current pace of skilling – at Rp 1,965 trillion (US\$134.5 billion).
- **Non-technology sectors are projected to see the highest growth in GDP contributions from digitally skilled workers between 2019 and 2030.** In particular, the professional services, manufacturing and construction sectors are projected to be some

7. Under this scenario (termed the "Accelerated" scenario), Indonesia is assumed to match the current digital skill penetration rate of the workforce in countries of comparable economy sizes that currently register the highest digital skill penetration rates – the United Kingdom and Netherlands.



of the largest beneficiaries from digital skills in 2030. Non-technology sectors are also expected to see some of the largest increases in their associated digital skills values – even surpassing that of the technology sector. The professional services sector, for example, is projected to see almost a 10-fold increase in its digital skills value between 2019 and 2030.

- **Digitally upskilling workers in Indonesia's hardest hit sectors will be a crucial part of the economic recovery process.** In the sectors that are being hardest hit by the COVID-19 pandemic – hospitality, food services and retail – digitally skilled workers could account for up to 13 percent of these sectors' potential GDP contributions in 2030. This reflects that digitally upskilling individuals will be a crucial part of the economic recovery process. Businesses that are quick to digitize and upskill their workforce accordingly – for instance, restaurants that are able to pivot to online ordering and food delivery operations, travel companies that can offer virtual tours, and retail shops that can move to e-commerce platforms – are likely to bounce back more quickly.
- **Unlocking Indonesia's digital skill opportunity fully and allowing COVID-hit sectors to fully leverage a digitally skilled workforce for recovery will require firm stakeholder commitment in three key areas.** The Indonesian government is already taking important steps to equip individuals with the skills of tomorrow. Established in 2018, its “Making Indonesia 4.0” strategy sets a strong tone for the government's intention to broaden digital skilling efforts in the country. New curriculums involving robotics and technology are starting to be introduced to schools and vocational training centers, and the government's “Digital Talent Scholarship Program” offers financial support to promising students to broaden their information communications and technology (ICT) learning opportunities. With the COVID-19 pandemic reinforcing the need for digital skills in the economy, the government has also implemented a series of policies to enhance digital skills. Key initiatives include the doubling of government budget allocated to the “pre-employment card” scheme (*Kartu Pra Kerja*) which provides skilling credit to laid-off workers, and the #BanggaBuatanIndonesia campaign (Proudly Made

in Indonesia) which onboarded 10.2 million MSMEs onto digital platforms at the end of 2020. However, for Indonesia to fully unlock the economic potential of digital skills, it is recommended that the country leverages multi-stakeholder partnerships in three key areas:

- **Equipping the current workforce with digital skills.** Governments should partner with industry leaders to develop skill frameworks that align with the industry on specific digital skills required in each sector – these frameworks can be used to guide training efforts. Subsidies may also be provided to firms to boost their investment in employee training. In particular, companies, especially MSMEs, could benefit from targeted support from both the government and private sector to address skill gaps.
- **Preparing the next generation of workers for the digital era.** The education system needs to be responsive to emerging skillsets of the economy. This involves extending study programs in collaboration with the private sector and incorporating a blend of technical ICT and “soft skills” in national curriculums.
- **Broadening digital access to all.** To ensure equitable access to digital skilling opportunities throughout the population, the coverage of existing skills development and training incentive programs could be widened to target underserved communities such as women, youth and rural workers.

Across these areas, Google has made significant contributions to digital upskilling in Indonesia through programs such as “Gapura Digital”, which has trained about 1.8 million small and medium sized businesses (SMBs) on digital marketing tools. In addition, the company has supported Indonesian businesses during the COVID-19 pandemic. As offline businesses struggle to remain profitable and MSME owners face the urgent need to diversify their distribution channels into



online platforms, Google’s programs and products have been instrumental to the survival of many of these entities. For example, Google’s “Women Will” initiative helped women sole breadwinners leverage technologies to reinvent their struggling businesses while introducing Google’s applications that established online business profiles which have become an integral part of new digital business models. A survey found that 98 percent of the participants who attended Google’s digital skilling initiatives (i.e., “Gapura Digital” and “Women Will”) under the “Grow with Google” program have seen an improvement in their digital skills.⁸ Meanwhile, 73 percent of SMBs experienced higher customer engagement and 51 percent reported an increase in revenue or profits.⁹

The report is structured into three chapters. Chapter 1 describes the value of digital skills in Indonesia today. Chapter 2 examines this potential value in 2030, based on the country’s current trends as well as the incremental value that could be unlocked if Indonesia were to accelerate the pace of digital skilling. Chapter 3 highlights the three areas of action that could help close this gap, with examples of relevant programs in the country.

8. Kantar (2020), Google Economic Impact. Available at: https://www.kantar.com.au/Google/Google_Economic_Impact.pdf

9. Kantar (2020), Google Economic Impact. Available at: https://www.kantar.com.au/Google/Google_Economic_Impact.pdf

BOX E1. GOOGLE'S CONTRIBUTIONS

By the end of 2020, Google's digital skills programs in Indonesia will have trained **over 1.8 million small and medium businesses** on a variety of digital skills. These programs address each of the three action areas outlined in this report:

- To equip the current workforce with digital skills, Google's "Gapura Digital" and "Women Will" initiatives have been training about 1.8 million SMBs on digital marketing tools they could use to improve customer outreach.
- To prepare the next generation of workers for the digital skills era, Google through its philanthropic arm, Google.org, provides support to the "Bebras Indonesia" initiative led by the non-governmental organization (NGO), Bebras International, which seeks to cultivate computational thinking skills in K-12 students.
- In broadening digital access to all, among other initiatives, Google's "Women Will" initiative has helped over 550,000 Indonesian women leverage technologies to build their own businesses, as well as inform youths on online safety practices towards a more inclusive and safer online environment.

In addition, Google has been instrumental in supporting over 320,000 business owners weather the COVID-19 crisis through its "Grow with Google" program. Through participating in "Gapura Digital" classes and "Women Will" conferences under this program, these businesses were able to develop sustainable revenue streams on digital platforms. A survey conducted before the pandemic found that 73 percent of SMBs experienced higher customer engagement and 51 percent reported an increase in revenue or profits after attending the "Grow with Google" program.¹⁰ To show support and solidarity with MSMEs, Google has also been providing advertising credits as part of its broader Rp 11.8 trillion (US\$800 million) global commitment for small businesses to remain engaged with their customers.¹¹



Beyond the digital skills agenda, Google's products have also supported substantial economic benefits to Indonesian businesses and consumers. The economic benefits of Google's products in 2019 – which include Google Search, Google Maps, Google Drive, Google Ads, AdSense, and Google Play – are estimated to be worth Rp 185 trillion (US\$12.7 billion) for Indonesian businesses, and over Rp 165 trillion (US\$11.3 billion) for Indonesian consumers. See Appendix A for more details on Google's economic and social contributions in Indonesia.

10. Kantar (2020), Google Economic Impact. Available at: https://www.kantar.com.au/Google/Google_Economic_Impact.pdf

11. Google in Indonesia (2020), "Dari UMKM hingga startup, program terbaru kami dirancang untuk membantu pelaku UMKM bertahan di tengah pandemic." Available at: <https://indonesia.googleblog.com/2020/08/dari-umkm-hingga-startup-program.html>

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