Accelerating Digital Transformation in Zambia

DIGITAL ECONOMY DIAGNOSTIC REPORT

THE WORLD BANK
Accelerating Digital Transformation in Zambia

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This report was prepared by a team from the World Bank Group, in close collaboration with a team from the government of Zambia.

The World Bank Group team included Ellen Olafsen (Sr. Private Sector Specialist and Task Team Leader), Ajai Nair (Sr. Financial Sector Specialist), Kirstin Conti (Sr. Governance Specialist), Nalin Jana (Sr. Education Specialist), Yoko Nagashima (Sr. Education Specialist), Mpuwaliyawa (Education Specialist), Krishna Pidatala (Sr. Operations Officer), Ida S. Mboob (ICT Specialist), Wale Ayeni (Sr. Investment Officer), Chijoke Gbolahan Egejuru (Investment Officer), Laura Quiceno Hernandez (Associate Investment Officer), Lesley Danes (Program Manager), Margareta O. Biallass (Sr. Operations Officer), Radwa Elsharkawi (Investment Officer), Neil Butcher (Education Consultant), Mutale K. Moyo (Education Consultant), Henry Sichembe (Private Sector Consultant), Christoph Stork (Digital Infrastructure Consultant), and Marcella Willis (Financial Sector Consultant). The team benefited from the support of Namuchana Muyawa (Team Assistant) and Musopa Kalenga (Intern).

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Comprehensive national stakeholder consultations—engaging both the private and public sectors—were undertaken in preparing and finalizing this document.
Zambia’s 7th National Development Plan (7NDP) sets ambitious targets for economic growth and poverty reduction. Technology can play an important role as Zambia advances this vision for economic transformation.

Recent evidence tells us that reaching the goal of universal and affordable internet coverage can raise growth per capita by 2 percentage points per year and reduce the poverty headcount by 1 percentage point per year. When internet coverage is complemented by human capital investments, growth per capita increases by approximately 5 percentage points and the poverty headcount falls by 2.5 percentage points per year. These contributions to growth are mainly due to growth in productivity across economic sectors; digital transformation is thus part and parcel of economic transformation.

The introduction of digital systems can also have a transformative effect on government. It is estimated that developing countries could collectively save 0.9 to 1.1 percent of GDP, equivalent to $220 billion to $330 billion annually (IMF 2017), by introducing digital systems in government that increase efficiency and reduce the potential for leakages to occur. Additionally, significant effectiveness gains can be realized by equipping government officials responsible for public service delivery with access to better data and tools.

Improved access to digital technologies and effective use of data and digital systems can thus be powerful tools in the quest to increase private sector productivity, enhance public sector efficiency and effectiveness, and improve the accountability of both the public and private sectors. Indeed, 7NDP includes several digital transformation strategies for these reasons.
This digital economy diagnostic assesses Zambia’s strengths and weaknesses with respect to five pillars that together form the foundation upon which the benefits of digital transformation can be realized. These pillars are Digital Infrastructure, Digital Skills, Digital Entrepreneurship, Digital Platforms, and Digital Financial Services. As discussed in the 2016 World Development Report (World Bank 2016), progress in these areas—combined with “analog complements,” that is, a favorable business environment, strong human capital, and good governance—can enable and accelerate development returns.

This digital economy diagnostic was carried out by a multidisciplinary World Bank Group team in close collaboration with a multiministerial working group, led by the Cabinet Office. More than 100 stakeholders from the public and private sectors were engaged in interviews, focus groups, and workshops to derive, triangulate, and validate the findings.

In summary, this analysis finds that Zambia has made significant strides on its path to digital transformation over the past few years. Progress is particularly evident in digital infrastructure, digital financial services, and digital platforms, while more significant gaps remain in digital skills and digital entrepreneurship.

With respect to digital infrastructure, all provincial centers are now linked to the fiber backbone, and the country has a state-of-the-art data center that can be leveraged for government and commercial use. International benchmarks for affordability of broadband have also been met, and the use of mobile phones has increased significantly, reaching 15.5 million mobile subscriptions in 2019, out of which 63.5 percent use broadband. The digital infrastructure foundation has thus been built to now focus on the use of the infrastructure, as well as on ensuring the reliability and security of the infrastructure that is in place. However, last mile connectivity remains a gap, preventing greater use of digital systems in more sparsely populated areas where access to services and markets is more limited, and where digital systems could help reduce transaction costs associated with serving smaller populations. The cost of connectivity also imposes a barrier to greater citizen and business take-up caused by low income levels, calling for measures to reduce connectivity costs.

Despite these remaining connectivity challenges, the take-up of digital financial services (DFS) has increased significantly since 2016. This illustrates that Zambia does not have to wait to deliver more services via mobile; a two-pronged strategy can be pursued that enables more mobile-based service delivery while steps are taken to promote greater last mile connectivity in secondary towns and rural areas.

With regard to DFS specifically, Zambia has had a strong commitment to financial inclusion over the course of the past several years. The country recognized early on that DFS can make financial inclusion less costly for financial services providers and consumers, and it was among the first set of countries to allow nonbank payment service providers. Access to financial accounts more than doubled from 21 percent in 2011 to 46 percent in 2017, and increased access to mobile money providers has been driving the bulk of this growth since 2016. The private sector clearly sees the provision of DFS as an opportunity; the DFS market now includes 10 banks, 3 mobile network operators, and 5 third-party providers, including financial technology companies. In June 2019, the national payment switch enabled the interoperability of all domestic transactions. This functionality was expected to be available for all point-of-sale and mobile money transactions by the mid-2020. This step would further increase convenience and reduce costs for citizens and businesses.

Substantial progress is also reported to have been made to digitize government salary and pension payments; some gains have been made in government-to-business and government-to-government payments; and early efforts have been made to digitize receipts from businesses and individuals. Early indications are that important results are being achieved: preliminary data from the digitization of government pay slips show that transaction costs decreased by 85 percent and several “ghost” workers were identified and removed. Similarly, when the pension authorities introduced a mobile-enabled module, contributions increased substantially.

These early results demonstrate the promise of greater use of digital payment systems in Zambia. However, several payment systems have just initiated their digitization journey, and most government payments for social cash transfers and subsidies are not yet digitized. Opportunities therefore exist to initiate or expand the digitization of such government payments for the purpose of efficiency gains and increasing the resilience of vulnerable and often unbanked populations (for example, smallholder farmers and social cash recipients). With the advancement of DFS, the need to develop adequate consumer protection measures is also pressing.

Payment systems is only one of several areas in which the Zambian government can—and is—taking steps to use digital tools to increase the efficiency of government services. With respect to digital platforms, the 7NDP sets specific targets for providing government services online, and Zambia is now among the top 10 in the least developed countries category of the E-Government Development Index published by the United Nations. The government has launched internal systems for internal government administration, and government-to-person and government-to-business services are increasingly digitized. However, interoperability between systems is often lacking, thus reducing their benefit to citizens, businesses, and government; usage and usability are not consistently monitored, and some systems suffer from a limited scale of implementation or from deterioration.
Furthermore, the ability to authenticate that people are who they say they are is fundamental to financial and public services delivery. The current identification system has several weaknesses in this regard, and the Zambian government has determined that a biometric national ID system would be the optimal approach for Zambia. Investments in a modernized ID system can result in significant fiscal returns, but it can also involve a significant fiscal outlay, thus requiring careful consideration.

To enable Zambia to make greater use of digital technologies as a transformation tool, individuals, businesses, and government must also have the requisite digital skills. This is an area in which Zambia has made less progress. The 7NDP Implementation Plan aims to have information and communications technologies (ICT) mainstreamed in schools, and the new competency-based national curriculum has made ICT a compulsory subject. In practice, however, most schools are not connected to the internet, they do not have adequate access to devices, and teachers have limited knowledge of how to use ICT in teaching and learning. Furthermore, the quality of general education is of serious concern; for example, fewer than one-third of learners pass their grade 12 examination.

Zambia will not realize the full benefits of digital transformation—nor will it meet its 7NDP goal of facilitating “innovative technologies skills development”—unless it also ensures that learners going through the school system are equipped with foundational numeracy and literacy skills. However, there is still room to better leverage digital tools for teacher training and access to up-to-date educational materials, as well as for education policy planning and monitoring and evaluation. With regard to government capacity in digital skills, important gaps remain to ensure the ability across ministries and government offices to systematically develop, maintain, and use digital systems.

The requisite digital and entrepreneurial skills are also needed to advance digital entrepreneurship; it is digital entrepreneurs who will derive innovative solutions to public and private sector challenges that can be resolved through the application of technology. Zambia has seen an increase in the registration of ICT-related firms between 2016 and 2019, and entrepreneurs are initiating innovative digital solutions in a wide array of sectors, including financial services, education, tourism, and agriculture. Although a handful of entrepreneurs are now delivering solutions at scale, most digital enterprises in Zambia are at the very initial stages of development.

Zambia’s Global Entrepreneurship Index scores in Startup Skills, Technology Absorption, and Risk Capital are very low, and entrepreneurial confidence is declining. Concerns about these four areas were also expressed repeatedly in the consultations for the diagnostic. Zambia is, however, fortunate to have a range of nascent private entrepreneurship initiatives that, coupled with increasing corporate interest, can lend themselves to public-private partnerships that make public funds stretch further. The public-private dialogue during the diagnostic process also indicated recognition of the challenge associated with regulating digital innovation and the importance of engaging in continued dialogue to ensure that regulators provide clarity and strike the difficult balance between enabling innovation and ensuring that citizens are protected.

Surprisingly, a relatively large proportion of start-ups focus on e-commerce. This is remarkable given the significant obstacles to e-commerce in Zambia; only a small proportion of the population has a home address, and goods ordered online can therefore not always be efficiently and reliably delivered to the buyer. Long distances and high logistics costs also affect the viability of both domestic and cross-border trade. Considerable improvements in addressing and logistics will therefore be needed before e-commerce significantly benefits Zambia. The government has recognized this obstacle and has recently embarked on the development of a new national logistics strategy.

The authors recommend that the government of Zambia develop a digital transformation strategy with a dual focus on meeting the 7NDP targets and improving the country’s fiscal space. This recommendation is closely aligned with the “doing more with less” mantra introduced by H.E. President Lungu, and it emphasizes the use of digital technology to improve (1) public sector efficiency and effectiveness, (2) private sector productivity, and (3) accountability across both the public and private sectors.

Against this background, this report suggests that the digital transformation strategy include four strategic themes (figure ES.1): (1) promoting greater use of digital technologies in the economy, (2) reducing government transaction costs and reducing the cost of doing business through digitally optimized government systems, (3) improving the adoption of innovative digital solutions by enabling entrepreneurship, and (4) leveraging data and digital systems to improve sector-specific outcomes in secondary towns and rural areas.

Promoting greater use of digital technologies in the economy. Enhanced broadband usage alone contributes significantly to growth and poverty reduction. Additionally, initiatives undertaken under this theme are foundational to greater adoption of digital technologies by citizens, businesses, and government. The probability of success
of initiatives launched under the other strategic themes will thus be limited without progress under this theme. Priority activities suggested under this theme include (1) streamlining compliance costs for connectivity providers; (2) strengthening government capacity in cybersecurity, data privacy, and consumer protection; (3) developing a road map and implementation plan for the rollout of digital ID that carefully considers the costs and benefits of the vast array of design options; and (4) partnering with the private sector to map and fill the digital skills needs for government to successfully design and implement priority digital transformation activities.

Reducing government transaction costs and the cost of doing business through digitally optimized government systems. Initiatives undertaken under this theme will have the most immediate and direct budgetary impact while also promoting private sector activity without much additional fiscal outlay. Priority activities suggested under this theme include (1) developing a government-wide implementation approach to advancing and scaling up digitization of major government payment flows (such as social cash, fertilizer subsidies, school fees, taxes, customs, and licenses), and (2) optimizing and scaling up the e-border management, e-licenses, and public e-procurement systems.

Improving adoption of innovative digital solutions by enabling entrepreneurship. Initiatives undertaken under this theme will ensure that the private sector has the capacity to develop innovative solutions to resolve public and private sector challenges. Priority activities suggested under this theme include (1) conducting a regulatory review assessing how tax, labor, and other pertinent regulations affect enterprises at the start-up stage, and developing a regulatory sandbox for digital innovation that provides digital entrepreneurs with a clearer mechanism for navigating regulatory requirements for innovative products and services; and (2) developing a start-up strategy that includes attention to technology entrepreneurship and that leverages the competency and resources of the Ministries of Higher Education and Commerce, Trade and Industry as well as the private sector and the continental entrepreneurship ecosystem.

Leveraging data and digital systems to improve sector-specific outcomes in secondary towns and rural areas. Initiatives undertaken under this theme would focus on the digital transformation of a sector (such as agriculture, education, or health) with the purpose of increasing the effectiveness of public service delivery or increasing productivity and reducing vulnerability. This theme will necessarily draw upon the other three themes, and should be planned spatially to ensure economies of scale and thus increased attractiveness for private sector participation.

While this report provides a suggested prioritization of digital transformation activities, it is recommended that the government create a Digital Transformation Steering Committee to lead the articulation of the digital transformation strategy and implementation matrix. Given that this agenda cannot be achieved by one ministry alone, the committee should have representation from multiple ministries. Relatedly, a dedicated public-private Digital Transformation Advisory Council may be advisable to ensure that the expertise of nongovernmental actors is leveraged in the articulation of the strategy and implementation matrix and to optimize the likelihood that the private sector buys into, and therefore contributes to, implementation.
**PRIORITY DIGITAL TRANSFORMATION ACTIONS**

1. **Promote greater use of digital technologies in the economy.**
   - Streamline compliance costs for connectivity providers, and develop a framework for PPP investments in last mile connectivity.
   - Strengthen the institutional capacity of government to protect consumers, data, and critical digital infrastructure.
   - Develop a detailed implementation road map for the modernization of the ID system, and implement the same.
   - Map data and skills needs to support evidence-based policy planning; integrate data collection, accessibility, and analysis into digital government systems planning, and partner with the private sector to implement.

2. **Reduce government transaction costs and the cost of doing business through digitally optimized systems.**
   - Develop a government-wide implementation approach to digitize major government payment flows (social cash, fertilizer subsidies, school fees, tax, customs, and licenses).
   - Optimize and scale the e-border management, e-licenses, and public e-procurement systems.
   - Enable data sharing and compatibility between core government systems starting with enforcing interoperability standards and publishing the API road map.

3. **Improve adoption of innovative solutions by enabling digital entrepreneurship.**
   - Conduct a regulatory review related to start-ups and develop a regulatory sandbox for digital innovation.
   - Develop a start-up strategy, including explicit attention to technology entrepreneurship.
   - Invest in PPPs to seed and scale up programs that build start-up skills, provide startup financing, and link entrepreneurs to regional markets.

4. **Leverage data and digital systems to improve sector-specific outcomes in secondary towns and rural areas.**
   - Identify two to three priority sectors for transformation, agriculture, education, and health.
   - Based on current national strategies derive priority challenges to address, engage the digital entrepreneurship community to identify innovative digital transformation solutions that work, and partner with the private sector to replicate and scale them.
   - Plan spatially such that economies of scale are achieved, using an integrated approach that takes into account the connectivity, skills, and systems required.

**EXPECTED OUTCOMES**

**7NDP TARGETS**

- Reduced Development Inequality
- Increased Public Sector Efficiency and Effectiveness
- Increased Private Sector Productivity
- Increased Public and Private Sector Accountability
- Conducive Governance
- Improved Fiscal Space
- Diversified Economy
- Enhanced Human Development
- Macro Target

Note: 7NDP = 7th National Development Plan; API = application programming interface; PPP = public-private partnership.

**REFERENCES**


Introduction

Zambia’s Path toward Inclusive Growth

Zambia is a strategically located resource-rich country; it borders eight countries and has massive mineral endowments, water and forests, substantial agricultural potential, and sparsely populated land. Zambia’s population is about 17.4 million, 45 percent of whom are under age 15.¹ The country is therefore one of the world’s youngest populations by median age.

Although Zambia achieved lower-middle-income status in 2014, poverty in the country is severe and inequality between urban and poor areas is high. According to the latest available estimates, which date to 2015, 58 percent of the population live on less than $1.90 per day, and three-quarters of the poor live in rural areas.² Zambia ranks 131 out of 157 countries in the 2018 Human Capital Index, reflecting vast human development needs in education and health and in basic infrastructure including water, sanitation, and electricity.

Zambia’s impressive economic growth from 2004 to 2014 was largely due to a mining boom. Insufficient productivity growth in agriculture has prevented the sector from laying the foundation for the structural transformation of the economy, and the country is struggling to generate sufficient revenue to cover needed public investments. In the State of the Economy speech in February 2020, the Minister of Finance noted that the government is facing a fiscal deficit of 8.2 percent of GDP, along with a stock of debt of US$112 billion at the end of December 2019 and increasing arrears. More broadly, Zambia is currently ranked 118 out of 137 countries on the 2018 Global Competitiveness Index and has a Country Policy and Institutional Assessment 2018 score of 3.3 out of 6, indicating a significant reform agenda ahead.

¹ data.worldbank.org.
² data.worldbank.org.
In 2006, Zambia embarked on its first long-term development plan, aimed at becoming a “Prosperous Middle-Income Nation by 2030.” This ambitious plan—referred to as Vision 2030—sets out to pursue a “knowledge-based economy that is fully competitive, dynamic, robust and resilient in an integrated global and liberal environment” (Republic of Zambia, Ministry of National Development 2006, 10). The 7th National Development Plan (7NDP), effective in the period 2017 to 2021, is the fourth plan that pursues the objectives of Vision 2030.

The 7NDP comprises five strategic goals: (1) enhanced economic diversification and job creation, (2) reduced poverty and vulnerability, (3) reduced development inequality, (4) enhanced human development, and (5) conducive governance for a diversified economy.

Zambia can indeed leverage its mining and natural resources, the available agricultural land, the size of surrounding regional markets, and a growing, young population and labor force to achieve its development targets. The World Bank’s Strategic Country Diagnostic published in 2018 suggests the following (World Bank Group 2018):

- More inclusive and sustainable growth can be achieved by (1) improving productivity by enabling better access to markets, land, and technology and reducing the cost of doing business; and (2) enhancing human capital by improving opportunities for the poor through access to markets, better skills, credit, and services.

- Reduced vulnerability of the poor can be achieved by providing transfers to the poor, including subsidies, and minimal health and education services.
The adoption and use of digital technologies provide unprecedented opportunity to increase the productivity and market access of the private sector, increase the efficiency of public expenditures, and enhance the cost-effectiveness of public services.

Reaching the goal of universal and affordable internet coverage with universal penetration of mobile services would raise growth per capita by 2 percentage points per year and reduce the poverty headcount by 1 percentage point per year. When internet coverage is complemented by human capital investments, growth per capita increases by about 5 percentage points while the poverty headcount falls by 2.5 percentage points per year (Choi, Dutz, and Usman 2019). This growth is achieved primarily through productivity gains; in 2017, mobile technologies and services alone generated 71 percent of GDP or US$110 billion in Sub-Saharan Africa, and 50 percent of that value emanated from productivity increases (GSMA 2019). More specifically, African firms using the internet have on average 3.7 times higher labor productivity than nonusers and 35 percent higher total factor productivity (Cirera, Lage, and Sabetti 2016). It also appears that higher internet usage is associated with increased trade: a 10 percent increase in internet use in an exporting country increases the number of products traded between two countries by 1.5 percent (Osnago and Tan 2016). M-PESA—a digital financial service—enabled 185,000 women to move out of subsistence farming and into business or sales occupations (Suri and Jack 2016).

In the public sector domain, it is estimated that developing countries could collectively save roughly 0.9–11 percent of GDP, equivalent to US$220 billion to US$330 billion annually by introducing digital systems in government that reduce the time and money spent on paperwork and the potential for leakage to occur (IMF 2017). For example, electronic payment cards reduced costs of social transfers in Brazil’s conditional cash transfer program, Bolsa Familia, from almost 15 percent to less than 3 percent of total payments (World Bank Group 2014). Evidence from India shows that using smartcards rather than cash for social security payments halved the incidence of demands for bribes (World Bank Group 2014). In Côte d’Ivoire, most secondary school students pay their school fees digitally, virtually eliminating the high levels of theft and bribery that were commonplace (Frydrych, Scharwatt, and Vonthron 2015). Additionally, governments can realize effectiveness gains by increasing the accessibility of data, information, and tools that equip public service officials such as teachers, health workers, and agricultural extension officers to improve the effectiveness of their services, as well as policy planners to make evidence-based decisions.

African countries have clearly recognized that digital technologies can be harnessed to achieve private and public sector goals:

- In 2015, the African Union adopted Agenda 2063, which aims to increase information and communications technology (ICT) penetration and its contribution to real GDP to double 2013 levels.
- In 2016, 57 percent of countries in Africa provided targeted online services to vulnerable groups.
- From 2014 to 2017, the number of mobile money accounts in Sub-Saharan Africa doubled to 21 percent of all adults.
- In 2018, for the first time, an African city—Lagos—emerged as one of the world’s top start-up ecosystems.
- Between 2014 and 2019, entrepreneurship ecosystems, through incubators, accelerators, and tech hubs, grew 10-fold in Africa, numbering more than 400 across the continent today.

Similarly, the aspiration in Zambia’s “2030 Vision” is for the country to become an “information and knowledge-based society by 2030,” and the 7NDP accordingly includes several digital transformation strategies, including plans to (1) strengthen the legal framework for ICT, (2) improve ICT infrastructure for service delivery, (3) provide electronic services, (4) promote e-business solutions, (5) develop a coordinated innovation and research ecosystem, (6) develop labor productivity through technology, and (7) facilitate innovative technologies skills development.

Although digitization holds much promise, it is important to keep in mind that it is not a substitute for investment in the basics of economic development, notably a favorable business climate, strong human capital, and good governance. Nor can it be taken for granted that digital transformation will have positive inclusion effects without a deliberate effort to ensure that it indeed reduces rather than exacerbates a divide between rich and poor, urban and rural, and men and women. Finally, digitization introduces new risks to consumers, firms, and governments, and will require proactive mitigation. All three aspects are discussed extensively in the World Bank’s 2016 World Development Report (see box 1.1).
BOX 1.1: REALIZING THE BENEFITS OF DIGITAL TRANSFORMATION

In many instances, digital technologies have boosted growth, expanded opportunities, and improved service delivery. Yet their aggregate impact has fallen short and is unevenly distributed. To get the most out of the digital revolution, countries also need to work on the “analog complements,” by strengthening regulations that ensure competition among businesses, by adapting workers’ skills to the demands of the new economy, and by ensuring that institutions are accountable. The triple complements—a favorable business climate, strong human capital, and good governance—will sound familiar, as they should, because they are the foundation of economic development. However, digital technologies add two important dimensions. First, they raise the opportunity cost of not undertaking the necessary reforms. They amplify the impact of good (and bad) policies, so any failure to reform means falling farther behind those who do reform. Second, although digital technologies are no shortcut to development, they can be an enabler and an accelerator by raising the quality of the complements.


As Zambia moves forward with its digital transformation strategy, it is important to ensure that “analog” and digital investments go hand-in-hand. Figure 1.1 illustrates how, on a high level, greater digital transformation can contribute to achieving the 7NDP strategic goals.

FIGURE 1.1: LEVERAGING DIGITAL TO ACHIEVE THE 7NDP TARGETS

7NDP TARGETS

ANALOGUE COMPLEMENTS

GOOD GOVERNANCE

STRONG HUMAN CAPITAL

FAVORABLE BUSINESS CLIMATE

DIGITAL TRANSFORMATION EFFECTS

Increase government efficiency, accountability and revenue collection through digitalization of services and government systems.

Accelerated enhancement of human capital through greater access to data and knowledge facilitated by digital platforms.

Greater access to markets and financial services through reduced transaction costs and increased competition facilitated by digital platforms.

REDUCED DEVELOPMENT INEQUALITY

ENHANCED HUMAN DEVELOPMENT

(Health and Education)

DIVERSIFIED ECONOMY & JOB CREATION

(Agriculture, Mining, Tourism, Energy, Transport, ICT.)

REDUCED POVERTY AND VULNERABILITY

DIVERSIFIED ECONOMY

Source: Original for this report.
Diagnostic Methodology

The World Bank Group’s Digital Economy for Africa: Diagnostic Tool and Guidelines for Task Teams Version 1.0 was the guiding document for this diagnostic. These guidelines were developed and endorsed by a cross–World Bank Group team, representing the Governance, Digital Dividend and Finance, Competitiveness, and Innovation Global Practices of the World Bank and the International Finance Corporation.

The diagnostic tool is organized around five key levers that drive the growth of a digital economy: digital infrastructure, digital skills, digital entrepreneurship, digital platforms, and digital financial services (table 1.1). These levers—or foundations—enable a range of digital transformation opportunities across social sectors such as health and education, and economic sectors such as agriculture, tourism, and manufacturing.

### TABLE 1.1: DIGITAL ECONOMY LEVERS

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<th><strong>DIGITAL INFRASTRUCTURE</strong></th>
<th><strong>DIGITAL SKILLS</strong></th>
<th><strong>DIGITAL ENTREPRENEURSHIP</strong></th>
<th><strong>DIGITAL PLATFORMS</strong></th>
<th><strong>DIGITAL FINANCIAL SERVICES</strong></th>
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<td>Digital infrastructure consists of connectivity (such as mobile and internet), the internet of things (such as mobile devices, computers, sensors, and geospatial instruments), and data repositories (such as data centers and clouds).</td>
<td>Digital skills include (1) user skills for the effective use of ICT tools, systems, and devices; (2) specialist skills to research, develop, design, produce, install, manage, and maintain ICT software and systems; and (3) business skills to be able to identify how digital technologies can create new opportunities or new business models.</td>
<td>Digital entrepreneurship offers new products and services that leverage digital technologies. Digital entrepreneurship can be defined as the process of designing, launching, and running a new business wherein creating or using digital technology is a driver of new value creation.</td>
<td>Digital platforms offer products and services accessible by digital channels. These include government services and systems, as well as commercial platforms offering an array of products and services.</td>
<td>Digital financial services provide (1) individuals and households with convenient and affordable digital channels through which they can pay, save, borrow, and insure; (2) firms with digital channels through which they can transact with customers and suppliers; and (3) government with digital channels through which to extend or receive payments.</td>
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Note: ICT = information and communications technology.
This diagnostic discusses the foundational levers in detail. Although it also touches upon some of the social and sectoral applications, it does not assess them in detail.

The research questions outlined in the diagnostic tool were addressed through the following research methods:

• Review of publicly available studies and data
• Interviews with representatives from the public and private sectors, as well as the cooperating partners, to identify additional studies and data not in the public domain
• Structured interviews and focus groups with public and private sector actors to fill remaining data gaps

It must be noted that the availability of up-to-date, quality data—and in some cases any data at all—was a key challenge for this diagnostic. The team therefore did its best to triangulate data sources and thus derive its findings.

The diagnostic process started with a meeting organized by the Deputy Secretary to the Cabinet convening the Permanent Secretaries of the Ministry of Commerce, Trade and Industry; the Ministry of Transport and Communication; the Ministry of Higher Education; the Ministry of General Education; the Ministry of Home Affairs; the Ministry of National Development Planning; and the Ministry of Finance, along with the heads of SMART Zambia, the Zambia Information and Communication Technology Authority, and the Bank of Zambia.

During the meeting, the high-level guiding principles for the diagnostic were agreed on, including the appointment of government focal points in each of the participating bodies referred to above. A World Bank Group Core Team was constituted, comprising specialists from the Finance, Competitiveness and Innovation Global Practice; the Digital Development Global Practice; the Governance Global Practice; the Education Global Practice; and the International Finance Corporation, and a kick-off meeting was held with all the appointed government focal points. In accordance with the research methodology, many one-on-one meetings and focus groups followed. After consultations with more than 100 stakeholders from the public and private sectors, the team presented its high-level findings to the government focal points first, and subsequently to a multistakeholder forum, where more than 50 percent of the attendees were members of the private sector.

Chapters 2–6 of this report outline the achievements Zambia has already made, and the hurdles that remain with regard to each of the digital economy pillars: digital infrastructure, digital skills, digital entrepreneurship, digital platforms, and digital financial services. Following a presentation of the achievements and hurdles, a set of recommendations is provided in each chapter. Chapter 7 summarizes the key findings and provides a set of priority recommendations, taking into consideration Zambia’s fiscal situation, development needs, and the current state of each of the digital economy pillars.
REFERENCES


