



**ON GOVERNMENT
INTERVENTION
IN THE DIGITAL
ECONOMY OF
LEAST-DEVELOPED
COUNTRIES:
THE CAMBODIAN
EXPERIENCE**

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KEY TAKEAWAYS

- The maturation of the digital economy is a development priority in the policy agendas of several countries, given its potential contributions to both economic and social progress.
- Despite this recognition, policy experts and scholars have conflicting notions about the centrality of government intervention in digital economy consolidation. While many perceive it as inimical to economic efficiency, others posit that it is crucial for enabling progress in many respects.
- For Cambodia, perpetual government involvement can be beneficial for the expansion of the digital economy on two salient fronts: digital infrastructure consolidation and the creation of a market environment conducive for the digital economy to thrive.
- On digital infrastructure enhancement, a plethora of administrative and governance challenges, most of which stem from a fragmented and disjointed digital transformation agenda, is still hampering Cambodia's digital infrastructure development process. As such, prudent government leadership would significantly ease the institutionalisation of a 'whole-of-government' approach to this process, which will effectively overcome most, if not all, of the institutional inertias and rigidities present in the system today.
- Active government intervention can also address urban-rural digital disparities, particularly via the implementation of differentiated policy interventions centred on narrowing the disparities, thereby engendering both short and long-term benefits for economic digitalisation.
- The legal environment which underpins the growth of the digital economy is still incrementally maturing. This suggests that regular government supervision is still essential for particular diagnostic and improvement purposes.
- Going forward, it is imperative for policymakers to continue identifying the existing factors inhibiting digital transformation via comprehensive and collaborative policy researches, to accelerate reforms on public sector innovation through joint efforts with various stakeholders, and to also enact a 'whole-of-society' approach to digital transformation in the long-run, all of which will potentially augment Cambodia's nascent digital economy.

Modern technology has been the cornerstone of national development strategies for centuries, but its prominence in accelerating economic progress has never been so widely pronounced than in the present era, particularly within the context of the 'Fourth Industrial Revolution' (4IR).¹ Although its importance has been broadly recognised, the onset of 4IR has exerted a great deal of pressure on many governments worldwide, especially in adapting to new socio-economic realities. Indeed, there is a newfound impetus for them to invest ample resources into readying their economies for the disruptions and opportunities bound to materialise within the ensuing societal shifts.² In Southeast Asia, it has also compelled numerous countries to undertake bold policy efforts towards recalibrating various pillars of their national innovation systems, one being the digital economy.³ Among these is Cambodia, a least-developed country (or LDC, a UN classification), which has been pursuing a host of policy endeavours to empower its digital economy as part of a long-standing enterprise to become a middle-income-country in 2030 and a high-income country in 2050.⁴

Despite the absence of an overarching innovation strategy in its policy repertoire, the consolidation of the digital economy is now at the forefront of the Royal Government of Cambodia's (RGC) development priorities.⁵ In the '*Rectangular Strategy Phase IV*' – its national development framework – the digital economy is denoted as an indispensable catalyst for augmenting both economic development and diversification as well as its steadfast transition towards a knowledge-based economy in the future.⁶ Recognising this, the government has instituted various policy frameworks to capitalise on its potential. In 2014, the RGC introduced the '*Cambodia ICT Master Plan 2020*' – an initiative centred on rendering

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- 1 Harari, Yuval N. 2018. *21 Lessons For The 21st Century*. London: Jonathan Cape.
 - 2 Schulze, Elizabeth. 2019. "Everything You Need to Know about the Fourth Industrial Revolution," CNBC, 17 January. (<https://www.cnbc.com/2019/01/16/fourth-industrial-revolution-explained-davos-2019.html>).
 - 3 Keun Lee et al. 2019. "Is the Fourth Industrial Revolution a Window of Opportunity for Upgrading or Reinforcing the Middle-Income Trap? Asian Model of Development in Southeast Asia." *Journal of Economic Policy Reform*: 1–18. (<https://doi.org/10.1080/17487870.2019.1565411>).
 - 4 Chhem Rethy et al. 2019. "Industry 4.0: Prospects and Challenges for Cambodia's Manufacturing Sector." Cambodia Development Resource Institute. (<https://cdri.org.kh/publication/policy-brief-industry-4-0-prospects-and-challenges-for-cambodias-manufacturing-sector/>).
 - 5 Ngov Mengyu. 2019. "Understanding Digital Economy in Cambodia." *Khmer Times*, 18 December. (<https://www.khmertimeskh.com/671086/understanding-digital-economy-in-cambodia/>).
 - 6 Royal Government of Cambodia. 2018. "Rectangular Strategy Phase IV." Phnom Penh, Cambodia.

Cambodia an intelligent nation by transforming it into an 'ICTopia' via strategic priorities including empowering civilians and enriching e-services in public service delivery.⁷ This was preceded by the 'Policy on Telecom/ICT Development 2020', which focuses on enhancing the national ICT sector through expanding the Telecom-ICT infrastructure connectivity, improving ICT human capacity and diversifying the ICT industries combined with ICT applications.⁸ According to Mok Khemara, Director of the Department of e-Government of the Ministry of Posts and Telecommunications (MPTC), 25 capitals and provinces have deployed their own 4G/LTE technologies, covering almost 60% of the Cambodian territory⁹. In addition, the MPTC also recently requested the Digital Economy Working Group of the Supreme National Economic Council (SNEC) to craft a digital government and digital economy policy to bolster the pace of economic digitalisation in the country towards transforming Cambodia into a highly digitally connected society by 2023.¹⁰

Despite these undertakings, Cambodia still lags behind many of its Southeast Asian counterparts in its progress towards constructing a vibrant and dynamic digital economy. The 2019 Global Innovation Index scored Cambodia's national innovation performance at 26.60, ranking it 97 of the 127 countries measured,¹¹ the lowest among the South-east Asian nations.¹² In the 2019 Global Competitiveness Report, the World Economic Forum (WEF) also ranked Cambodia's economic competitiveness at 106 out of 141 countries.¹³ The report further stated that the country's entrepreneurial ecosystem, particularly within the digital economy, was among the weakest in the region due to structural and institutional

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- 7 Korean International Cooperation Agency (KOICA). 2014. "Summary on Cambodian ICT Master Plan 2020."
 - 8 Tum, Yusous. 2017. "Telecommunication and ICT Development Policy." Presentation, Centre of International Cooperation for Computerization. Tokyo, Japan, 1 February 2017.
 - 9 Khemara, Mok. 2020. "The achievement of an information society and knowledge economy is one of the main priorities of the RGC towards the attainment of the sustainable development goals (SDGs)". Presentation, Ministry of Posts and Telecommunications. Phnom Penh, Cambodia, 7 January 2020.
 - 10 Kunmakara, May. 2020. "Ministry to Prepare the Country for Digitalisation," Phnom Penh Post, 29 April. (<https://www.phnompenhpost.com/business/ministry-prepare-country-digitalisation>).
 - 11 "Innovation Index by Country, around the World." The Global Economy, 2020. (https://www.theglobaleconomy.com/rankings/GII_Index/#Cambodia).
 - 12 Thomas, Jason. 2019. "How Innovative Is Your Country?" The ASEAN Post, 30 July. (<https://theaseanpost.com/article/how-innovative-your-country>).
 - 13 Senase, Jose Rodriguez T. 2019. "Cambodia Improves in WEF Global Competitiveness Ranking." Khmer Times, 10 October 10. (<https://www.khmertimeskh.com/650070/cambodia-improves-in-wef-global-competitiveness-ranking/>).

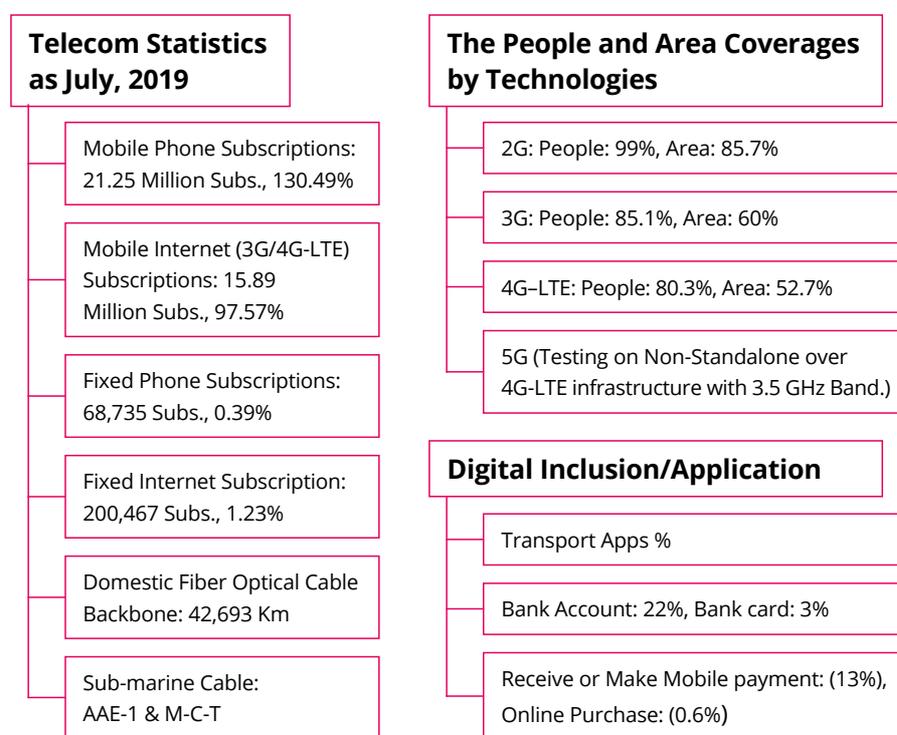
bottlenecks such as the dearth of sound regulations, the lack of stable systems and supportive policies to facilitate interactions between critical innovation agents (i.e. universities, start-ups, etc), and other such issues.¹⁴ ■



14 Schwab, Klaus. 2019. "The Global Competitiveness Report 2019." World Economic Forum. (http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf).

The digital economies of developed countries are growing at an astonishing rate in the world today.¹⁵ However, the reality of many developing nations including Cambodia, is that their economic digitalisation continues to be hampered by the paucity of first-rate digital infrastructure.¹⁶ This in turn constrains their governments' efforts to harness digitalisation for both economic leapfrogging and societal transformation¹⁷. The following figure provides a holistic snapshot of this predicament in Cambodia:

Figure 1: Cambodia's Key Digital Infrastructure Statistics (2019)



Source: Telecommunication Regulator of Cambodia (2019)¹⁸

¹⁵ Heeks, Richard and Rumana Bukht. 2018. "Digital Economy Policy in Developing Countries." *DOIDE Working Paper 6*. (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3540027).

¹⁶ "World Development Report 2016: Digital Dividends." *The World Bank Group*, 2016. (<https://www.worldbank.org/en/publication/wdr2016>).

¹⁷ Mittal, Sunil Bharti. 2019. "How to Build a Digital Infrastructure That Benefits Emerging Economies." *World Economic Forum*. (<https://www.weforum.org/agenda/2019/10/benefits-of-digital-infrastructure-emerging-economies/>).

¹⁸ Vutha, Im. 2019. "Digital Connectivity in Cambodia". Presentation, Telecommunication Regulator of Cambodia, Phnom Penh, Cambodia.

On the surface, Figure 1 illustrates that the present state of Cambodia's digital infrastructure is exemplary in many areas, despite certain deficiencies. However, its international position is disadvantaged, especially when ranked alongside its Southeast Asian counterparts. Based on the Network Readiness Index 2019 – a global, evidence-based assessment of the capacities of countries to maximise the opportunities presented by information and communications technology (ICT) – Cambodia ranked 107 out of 121 countries.¹⁹ Substantial investment in digital infrastructure, coordinated by judicious government leadership, is a decisive starting point for developing nations to transition towards a well-functioning digital economy in the future.²⁰ Well-formulated government policies can enhance multiple facets of the digital economy either directly or indirectly.²¹ Hence, government intervention is necessary for upscaling Cambodia's digital infrastructures in the following ways.

1. Institutionalising a 'Whole-of-Government' Approach to Digital Infrastructure Building

As reported by the Telecommunications Regulator of Cambodia,²² the deficiencies in Cambodia's digital infrastructures go beyond limited internet connectivity and the low rate of domestic digital adoption. Overall, a fragmented digital transformation strategy also compounds the problem.

The government units liable for spearheading digital transformation are predominantly siloed and fragmented; there are also several institutions in the fray with a confusing patchwork of overlapping responsibilities. Moreover, many of the relevant policy frameworks are incoherent, disconnected and muddled, despite their significance in the overall digital transformation agendas.²³

¹⁹ "Network Readiness Index – Cambodia." *Network Readiness Index, 2020*. (<https://networkreadinessindex.org/>).

²⁰ Quinones, Gerardo, Brian Nicholson, and Richard Heeks. 2014. "A Literature Review of E-Entrepreneurship in Emerging Economies: Positioning Research on Latin American Digital Startups." in *Entrepreneurship in BRICS*, ed. Renata Lèbre La Rove, Luiz De Magalhães Ozório, and Leonardo de Jesus Melo. New York, NY: Springer, 179–208. (https://doi.org/10.1007/978-3-319-11412-5_11).

²¹ Beschoner et al. 2019. "The Digital Economy in Southeast Asia: Strengthening the Foundations for Future Growth." *World Bank*. (<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/328941558708267736/the-digital-economy-in-southeast-asia-strengthening-the-foundations-for-future-growth>).

²² Vutha, Im. 2019. "Digital Connectivity in Cambodia."

²³ Cheng, Kimlong. 2019. "Linking Digital Silk Road to Cambodian Digital Economy." *Khmer Times*, 9 April. (<https://www.khmertimeskh.com/595096/linking-digital-silk-road-to-cambodian-digital-economy/>).

A case in point is the national digital entrepreneurship ecosystem. As the World Bank Group reports, there are various ministries accountable for the digital transformation project including the Ministry of Industry and Handicrafts (MIH), the Ministry of Posts and Telecommunication (MPTC), and the Ministry of Economy and Finance (MEF). Unfortunately, there is no central institution overseeing their responsibilities or ensuring the fulfilment of their stipulated agendas.²⁴ The 2018 Startup Policy, which endeavours to facilitate the continued growth of digital entrepreneurship, is also nested within the MPTC, although entrepreneurial activities generally pervade multiple sectors. These systemic failings highlight the disorganised character of the government's current policy on the digital transformation of Cambodia's economy.²⁵

The whole-of-government approach, with its emphasis on enhancing the efficiency of governance and administrative coordination within public institutions, can potentially rectify these problems. Referencing rationalist traditions of public policy, the approach espouses the systematic centralisation of policy formulation and management to a central agency that can direct the implementation of the policy responses through clearer divisions of responsibilities and co-ordination between government departments. Working within such a coherent policy framework, the project of consolidating digital infrastructure can become more streamlined, with flexible and synergetic implementation.²⁶ Such positive developments could also address the aforementioned institutional failings of siloed and pillared operations, resulting in greater resource efficiency and policy effectiveness.²⁷

Certain lessons from neighbouring Thailand can be instructive for Cambodian policymakers in this endeavour, given the similar governance and administrative arrangements of the two nations. Guided by its overarching 'Thailand 4.0' strategy, the Thai

²⁴ Ehst, Michael et al. 2018. "Entrepreneurial Cambodia." *The World Bank*. (<https://doi.org/10.1596/30924>).

²⁵ Spiess, Robin. 2019. "Cambodia: Ready for a (Digital) Revolution?" *Southeast Asia Globe*, 28 March. (<https://southeastasiaglobe.com/cambodia-ready-for-a-digital-revolution>).

²⁶ Clarke, Amanda. 2019. "Digital Government Units: What Are They, and What Do They Mean for Digital Era Public Management Renewal?" *International Public Management Journal* 23, 3: 1–31. (<https://doi.org/10.1080/10967494.2019.1686447>).

²⁷ International Telecommunication Union. 2019. "SDG Digital Investment Framework – A Whole-of-Government Approach to Investing in Digital Technologies to Achieve the SDGs." *Digital Impact Alliance*. (<https://www.itu.int/pub/D-STR-DIGI-TAL.02-2019>).

government has been delegating the task of digital infrastructure modernisation to the 'Ministry of Digital Economy and Society' and the 'Electronic Government Agency'. These two bodies have been instrumental in coordinating infrastructure-building policies within various government institutions, enabling digital transformation across government levels, and assisting private sector digitalisation and innovation processes.²⁸ In the 2019 Networked Readiness Index, Thailand ranked 59th globally and 3rd best in the 'Emerging and Developing Asia' category.²⁹

The abovementioned reforms can be plausibly mainstreamed across Cambodia's governance contexts. It has been suggested by experts that the country's Ministry of Economy and Finance (MEF) should spearhead the process, with their viable mandates on digital economic transformation and their reputation as the most innovative and progressive government institution in the country. In July 2020, the government announced comprehensive plans to empower the Ministry's critical functions in this domain, within the context of the 'long-term strategic policy framework for the digital economy' which is currently being drafted.³⁰ This clearly reflects the government's ongoing commitment to nurturing a supportive culture, conducive for incentivising and effectuating whole-of-government coordination.³¹ To cushion against unwarranted implementation deficits, there has also been a renewed emphasis on accelerating public sector innovation within the relevant policy institutions (i.e. MEF). For instance, the Ministry of Civil Service (MCS) has been actively collaborating with the United Nations Development Programme (UNDP)'s Accelerator Lab to bolster agile governance and innovation within the public sector³².

The whole-of-government approach is not bereft of limitations. Given its conceptual origins in Western academic and policy discourse, some scholars assert

²⁸ Sagarik, Danuvas et al. 2018. "E-Government 4.0 in Thailand: The Role of Central Agencies," *Information Polity* 23, 3: 343–353. (<https://doi.org/10.3233/IP-180006>).

²⁹ "Network Readiness Index – Cambodia." *Network Readiness Index, 2020*. (<https://networkreadinessindex.org/>).

³⁰ Te Vedle, Dirk Willem et al. 2020. 'Fostering an inclusive digital transformation in Cambodia.'

³¹ Colgan, Anne, Lisa Kennedy, and Nuala Doherty. 2014. "A Primer on Implementing Whole of Government Approaches." Dublin, Centre for Effective Services. (<https://www.effectiveservices.org/resources/primer-on-implementing-whole-of-government-approaches>).

³² Hussain, Ishtiaque and Vichet Seat. 2020. "Inclusive Public Service Innovation in Cambodia: Taking a Systems View," United Nations Development Programme. (<https://www.kh.undp.org/content/cambodia/en/home/blog/inclusive-public-service-innovation-in-cambodia--taking-a-system.html>).

that its core tenets are mostly incompatible, or even antithetical to, the policy conventions of non-Western governments.³³ This is due in part to such governments' risk-averse tendencies as well as the political resistance from non-conformist groups that prefer entrenching the status quo for their own motives.³⁴ Yet, such an argument is normatively biased, since it neglects the agency of these governments, particularly Cambodia's, to undertake 'policy translation' and make 'adaptations and modifications' of the hallmark features of the approach to 'indigenise' them within their national domestic policy contexts including those underpinning digital infrastructure consolidation.³⁵ As a result, the whole-of-government approach can be institutionalised in Cambodia's government settings if policymakers commit to reconfiguring its staple characteristics so that their contextual relevance in central policy agendas is accentuated. The success of the venture, however, also hinges on the political willingness of all relevant government agencies to implement these ambitious reform proposals. Otherwise, the issue of 'coercive institutional isomorphism' - the inability of institutions to reform due to 'formal and informal pressures on organisations by other organisations upon which they are dependent' - would prevail.³⁶

2. Addressing Regional Digital Disparities via 'Differentiated Policy Responses'

Facilitative government intervention, especially from the central authority, is also pivotal for ensuring that the gains of digital infrastructure development are evenly distributed across the country. In Cambodia, the digital environment of many rural provinces still lags behind that of the capital due to a shortage of the necessary technical resources and administrative capacities in local governments.³⁷ As documented by

³³ Ling, Tom. 2002. "Delivering Joined-up Government in the UK: Dimensions, Issues and Problems." *Public Administration* 80, 4: 615–42. (<https://doi.org/10.1111/1467-9299.00321>).

³⁴ Carey, Gemma and Brad Crammond. 2015. "What Works in Joined-Up Government? An Evidence Synthesis." *International Journal of Public Administration* 38, 13–14: 1020–29. (<https://doi.org/10.1080/01900692.2014.982292>).

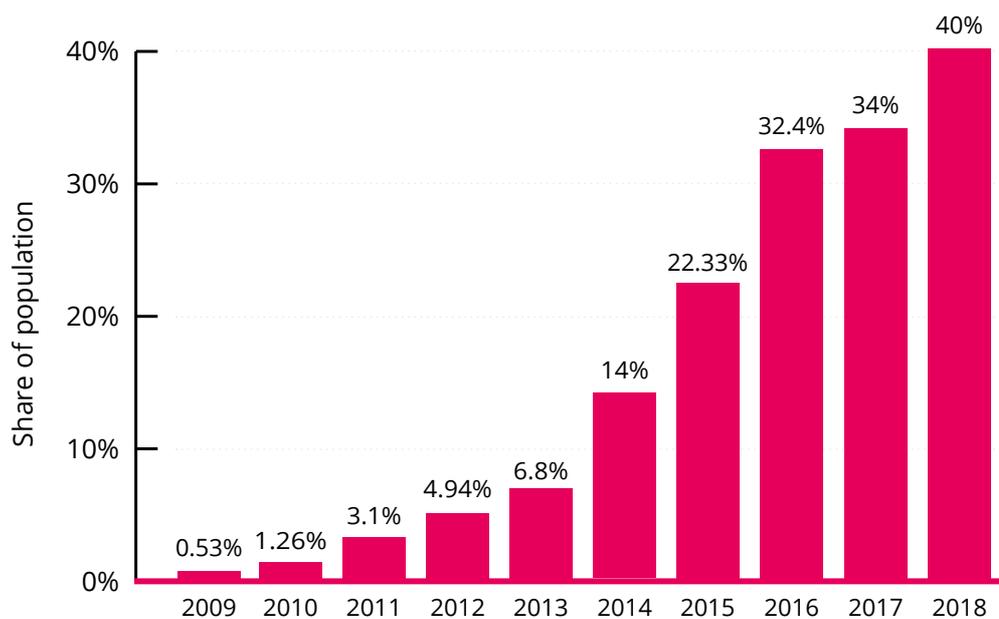
³⁵ Stone, Diane. 2012. "Transfer and Translation of Policy." *Policy Studies* 33, 6: 483–99. (<https://doi.org/10.1080/01442872.2012.695933>).

³⁶ DiMaggio, Paul and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48, 2: 150. (<https://doi.org/10.2307/2095101>).

³⁷ UNCTAD. 2017. "Cambodia Rapid E-Trade Readiness Assessment." New York: United Nations. (https://unctad.org/en/PublicationsLibrary/dtlstict2017d2_en.pdf).

the International Telecommunications Union,³⁸ the total internet penetration rate for Cambodia in 2018 was recorded at only 40% of the total population, although this is a considerable hike from previous years (see Figure 2). The actual disparity between urban and rural rates is difficult to measure conclusively given the scarcity of region-specific and time-relevant data. The Asia Foundation, however, surveyed approximately 2000 Cambodians in 2016 on the frequency of their mobile and internet usage. The study discovered that access to internet connectivity was more feasible for urban than rural residents (48% vs 31%).³⁹ This urban-rural digital divide results from the imbalance of modern digital infrastructures across different regions in Cambodia.

Figure 2: Internet Penetration Rate in Cambodia from 2009 to 2018



Source: International Telecommunications Union, 2020 (as cited in Statista)⁴⁰

³⁸ “Cambodia: Internet Penetration Rate 2009-2018.” Statista, 2020. (<https://www.statista.com/statistics/766013/internet-penetration-rate-cambodia/>).

³⁹ Phong, Kimchhoy, Lihol Srou, and Javier Solá. 2016. “Mobile Phones and Internet Use in Cambodia 2016: Research Study.” The Asia Foundation. (<https://asiafoundation.org/wp-content/uploads/2016/12/Mobile-Phones-and-Internet-Use-in-Cambodia-2016.pdf>).

⁴⁰ Statista. 2020. “Cambodia: Internet.”

The Cambodian government has been forging partnerships with multiple telecommunication companies to harness their capacities and next-generation technologies for expanding bandwidth connectivity.⁴¹ However, these arrangements still lack a focused and targeted scope for provincial digitalisation. In the expansion of 5G networks, for instance, the Ministry of Post and Telecommunications is cooperating with telecommunications legions like Smart Axiata, Huawei, ZTE, and Cellcard to roll out 5G base stations across the country.⁴² Yet, their targeted areas include only major cities (i.e. Phnom Penh and Siem Reap), while plans for other regions are still in development. Fibre optic connections – the backbone of 5G connectivity – are also either substandard or absent in certain provinces, keeping rural broadband connectivity far from being ubiquitous, instantaneous, and reliable.⁴³ Although electricity access is widespread, there is also the problem of inadequate and expensive electric power supply (due to absence of a national grid) in some rural areas, thereby resulting in frequent blackouts.⁴⁴

One potential solution to addressing this setback is the strategic leveraging of 'Public-Private Partnerships (PPPs)' with several domestic and international stakeholders. According to Central Public-Private Partnerships Unit of Cambodia's Economic Ministry, PPPs are the 'agreements between the State and one or more Private Partners to restore, repair, expand, build, operate and/or maintain public infrastructure, project assets, or to provide public services within a certain period of time, under which the private partner shall invest, bear risks and receive benefits based on performance and all of which shall be stipulated in the PPP contract'.⁴⁵ In Cambodia, PPPs have been widely deployed in many sectors of infrastructure development, contributing enormously to the livelihoods of rural and urban residents. In the

⁴¹ Yang Yi. 2019. "Spotlight: Cambodia's Leading Telco Operator Partners with China's Huawei to Bring 5G to Country." *Xinhua Net*, 9 July. (http://www.xinhuanet.com/english/2019-07/09/c_138209858_2.htm).

⁴² Sbeglia, Catherine. 2020. "With a 'Lot at Stake,' Cambodia Inches towards 5G Deployment." *RCR Wireless News*, 10 June. (<https://www.rcrwireless.com/20200610/5g/cambodia-inches-towards-5g-deployment>).

⁴³ Turton, Shaun and Tomoya Onishi. 2019. "Cambodia 5G Set to Leapfrog ASEAN Rivals with Huawei and ZTE." *Nikkei Asian Review*, 5 September. (<https://asia.nikkei.com/Spotlight/5G-networks/Cambodia-5G-set-to-leapfrog-ASEAN-rivals-with-Huawei-and-ZTE>).

⁴⁴ Soeng, Roth, Ludo Cuyvers, and Morarith Soeung. 2019. "E-Commerce Development and Internet Banking Adoption in Cambodia," in *Developing the Digital Economy in ASEAN*, ed. Lurong Chen and Fukunari Kimura. New York, NY: Routledge, 85–97.

⁴⁵ Central Public-Private Partnerships Unit. "What are PPPs." *Ministry of Economy and Finance*, 2020.

water sector, for instance, macro-scale PPPs for reservoir and dam constructions, urban water supply management, and other such projects, have successfully provided nearly 78.5% of the population (as of 2020) sufficient access to clean water and sanitation facilities.⁴⁶ The instrumentalisation of PPPs can also accelerate digital infrastructure consolidation in both the capital city and under-connected regions in Cambodia, as they can fundamentally mobilise resources and policy efforts from the private sector, governments, and organisations towards the overarching mission of digital economy development.⁴⁷

When situated within the frameworks of local government-led, place-based approaches, these measures can also provide greater autonomy to local authorities to design innovative platforms for crowdsourcing the collective intelligence of the local community actors, thereby widening the democratic space for their participation in policymaking. They can enable local authorities to have greater leeway in ‘configuring’ and ‘contextualising’ policy priorities, invigorating the political accountability of central policymakers to local governments, and expanding the scope of the broader development strategies towards local demands.⁴⁸ PPPs are also recommended as salient tools to minimise the ‘transaction costs’ in local governments’ consolidation of digital infrastructures in disadvantaged areas.⁴⁹ They can help with crowdsourcing resources and information, invigorating productivity via collaborative approaches, and drawing in working talents from different sectors to work on either a permanent or temporary basis, depending on the incentives being offered.⁵⁰ Without them, the development needs of local provinces will remain de-prioritised.⁵¹

⁴⁶ PPP Knowledge Lab. 2020. “Cambodia.”

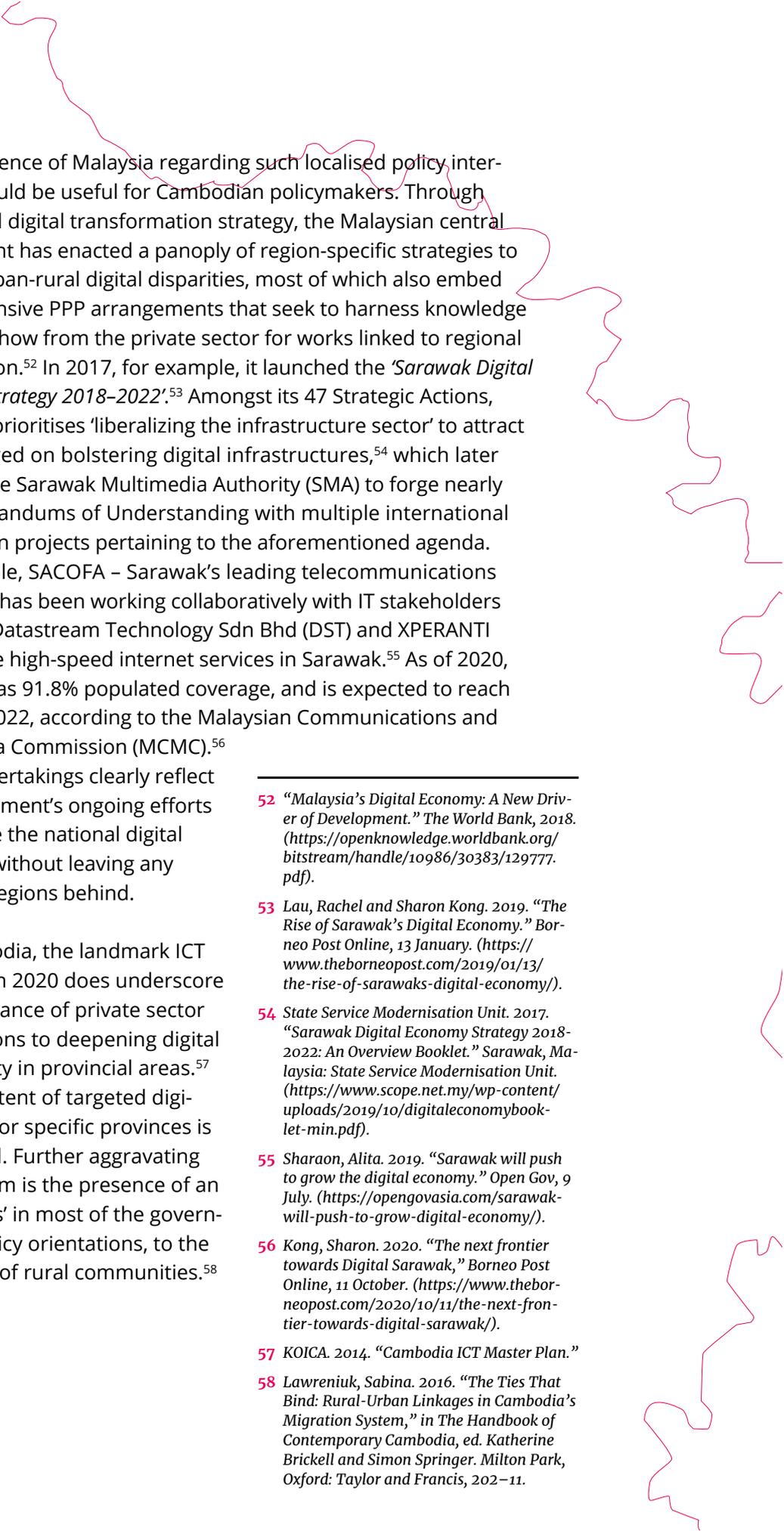
⁴⁷ Le Fevre Cervini, Enzo Maria. 2019. “The Role of Public-Private Partnership in Innovating Digital Service,” *Italian Institute for International Political Studies*. (<https://www.ispionline.it/it/pubblicazione/role-public-private-partnership-innovating-digital-service-23305>).

⁴⁸ Fong, Michelle. 2009. “Digital Divide: The Case of Developing Countries.” *Issues in Informing Science and Information Technology* 6: 471–78. (<http://iisit.org/Vol6/IISTv6p471-478Fong597.pdf>).

⁴⁹ Baxter, David. 2020. “Africa Must Embrace Digital Infrastructure Governance. PPPs Can Help.” *World Bank Blogs*, 29 January (<https://blogs.worldbank.org/ppps/africa-must-embrace-digital-infrastructure-governance-ppps-can-help>).

⁵⁰ Witters, Louis, Revital Marom, and Kurt Steinert. 2012. “The Role of Public-Private Partnerships in Driving Innovation.” in *The Global Innovation Index 2012*. Geneva, Switzerland: World Intellectual Property Organization, 81–87. (https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2012-chapter2.pdf).

⁵¹ Fong, Michelle. 2009. “Digital Divide: The Case of Developing Countries.”



The experience of Malaysia regarding such localised policy intervention could be useful for Cambodian policymakers. Through its national digital transformation strategy, the Malaysian central government has enacted a panoply of region-specific strategies to narrow urban-rural digital disparities, most of which also embed comprehensive PPP arrangements that seek to harness knowledge and know-how from the private sector for works linked to regional digitalization.⁵² In 2017, for example, it launched the ‘*Sarawak Digital Economy Strategy 2018–2022*’.⁵³ Amongst its 47 Strategic Actions, Action 35 prioritises ‘liberalizing the infrastructure sector’ to attract PPPs centred on bolstering digital infrastructures,⁵⁴ which later enabled the Sarawak Multimedia Authority (SMA) to forge nearly 10 Memorandums of Understanding with multiple international partners on projects pertaining to the aforementioned agenda. For example, SACOFA – Sarawak’s leading telecommunications provider – has been working collaboratively with IT stakeholders including Datastream Technology Sdn Bhd (DST) and XPERANTI to enhance high-speed internet services in Sarawak.⁵⁵ As of 2020, Sarawak has 91.8% populated coverage, and is expected to reach 96.9% in 2022, according to the Malaysian Communications and Multimedia Commission (MCMC).⁵⁶

These undertakings clearly reflect the government’s ongoing efforts to upgrade the national digital economy without leaving any potential regions behind.

For Cambodia, the landmark ICT Masterplan 2020 does underscore the importance of private sector contributions to deepening digital connectivity in provincial areas.⁵⁷ Yet, the extent of targeted digitalisation for specific provinces is still limited. Further aggravating the problem is the presence of an ‘urban bias’ in most of the government’s policy orientations, to the detriment of rural communities.⁵⁸

⁵² “Malaysia’s Digital Economy: A New Driver of Development.” *The World Bank*, 2018. (<https://openknowledge.worldbank.org/bitstream/handle/10986/30383/129777.pdf>).

⁵³ Lau, Rachel and Sharon Kong. 2019. “The Rise of Sarawak’s Digital Economy.” *Borneo Post Online*, 13 January. (<https://www.theborneopost.com/2019/01/13/the-rise-of-sarawaks-digital-economy/>).

⁵⁴ State Service Modernisation Unit. 2017. “*Sarawak Digital Economy Strategy 2018–2022: An Overview Booklet*.” Sarawak, Malaysia: State Service Modernisation Unit. (<https://www.scope.net.my/wp-content/uploads/2019/10/digitaleconomybooklet-min.pdf>).

⁵⁵ Sharaon, Alita. 2019. “Sarawak will push to grow the digital economy.” *Open Gov*, 9 July. (<https://opengovasia.com/sarawak-will-push-to-grow-digital-economy/>).

⁵⁶ Kong, Sharon. 2020. “The next frontier towards Digital Sarawak,” *Borneo Post Online*, 11 October. (<https://www.theborneopost.com/2020/10/11/the-next-frontier-towards-digital-sarawak/>).

⁵⁷ KOICA. 2014. “Cambodia ICT Master Plan.”

⁵⁸ Lawreniuk, Sabina. 2016. “The Ties That Bind: Rural-Urban Linkages in Cambodia’s Migration System,” in *The Handbook of Contemporary Cambodia*, ed. Katherine Brickell and Simon Springer. Milton Park, Oxford: Taylor and Francis, 202–11.

Going forward, it is then imperative for the government to mobilise more PPPs to upgrade the digital infrastructures of under-connected provinces. This will go a long way in gauging the effectiveness of the digital economy to meaningfully enable economic development without entrenching any existing inequalities.⁵⁹

It is important to acknowledge that PPPs, despite their strengths, are also fraught with shortcomings. Common manifestations include the diminution of government authority owing to private capture, the potential uptick in administrative costs resulting from budget miscalculations and other such issues, or even the dilution of the government's legitimacy due to the misconduct of private agents and other factors.⁶⁰ Some of these problems have also materialised in Cambodia's PPP landscape. In a recent study,⁶¹ challenges like the absence of a central legal framework to formally govern the operations of both public and private entities, the lack of institutional and legal safeguards in the implementation process⁶² and also a want of a central governance unit for managing the PPPs have been highlighted. Furthermore, the capacities of the responsible government officials to implement PPPs remains relatively limited.⁶³ Unless these impediments are properly addressed, through rigorous remedial and oversight measures, the promises of PPPs in accelerating the development and maturation of Cambodia's internet backbone will remain unfulfilled. Pertaining to place-based approaches, their successful implementation also hinges on the degree of the current government's commitments to its decentralisation and de-concentrating (D&D) reforms. There are, however, still a number of bottlenecks to overcome, such as 'the lack of an overarching vision on decentralisation, inadequate funding and vertical fiscal imbalances, and a few sequencing and capacity constraints.'⁶⁴

⁵⁹ Lowden, Richard James et al. 2018. "Malaysia's Digital Economy: A New Driver of Development." *The World Bank Group*. (<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/435571536244480293/malysias-digital-economy-a-new-driver-of-development>).

⁶⁰ Lowden, Richard James et al. 2018. "Malaysia's Digital Economy: A New Driver of Development."

⁶¹ Bun Eang Sar, Meyka Chea, and Chanpisey Ung. 2020. "Public-Private Partnerships in Cambodia: Issues and Solution." *Open Journal of Business and Management* 8, 3: 1216–1225. (<https://doi.org/10.4236/ojbm.2020.83078>).

⁶² Bun Eang Sar, Meyka Chea, and Chanpisey Ung. 2020. "Public-Private Partnerships in Cambodia: Issues and Solution."

⁶³ Bun Eang Sar, Meyka Chea, and Chanpisey Ung. 2020. "Public-Private Partnerships in Cambodia: Issues and Solution."

⁶⁴ So, Sokbunthoeun, Sissoko Filly, and Kurshi Bhatti Zubair. 2018. "Cambodia's Cross-Cutting Reforms." *The World Bank Group*. (<http://documents1.worldbank.org/curated/en/767141558361337255/pdf/Cambodias-Cross-Cutting-Reforms-Public-Financial-Management-Decentralization-and-Public-Administration-Reforms-Achievements-Coordination-Challenges-and-Next-Steps.pdf>).

3. Designing Rules and Regulations: The Missing 'Analogue Complements'

According to the World Bank, a sound and up-to-date regulatory framework is one amongst the essential 'analog complements' that can expedite the process of digital economic transformation by 'creating a business environment where firms can leverage the internet to compete and innovate for the benefit of consumers'.⁶⁵ Without it, governments, particularly in underdeveloped economies, would find it difficult to incentivise domestic businesses to leverage emerging digital technologies for their own growth as well as national economic development.⁶⁶ The significance of government intervention in Cambodia's legal environment, specifically concerning digital economy regulations, is justifiable for these reasons.

There is a dearth of coherent and well-grounded regulations in the area of digital commerce and entrepreneurship in Cambodia to facilitate processes and engender confidence amongst aspiring investors.⁶⁷ In a report entitled *'The Digital Economy in Southeast Asia: Strengthening the Foundations for Future Growth'*, the World Bank Group echoed that Cambodia is the only country in the region which does not have sufficient legal and regulatory instruments to enable electronic transactions, online purchases, and data protection and privacy (see Figure 3).⁶⁸

⁶⁵ World Bank. 2016. "Digital Dividends."

⁶⁶ Bukht, Rumana and Richard Heeks. 2017. "Defining, Conceptualising and Measuring the Digital Economy." *Development Informatics Working Paper 68*. (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3431732).

⁶⁷ Kem et al. 2019. "Startup Kingdom: A Look At Cambodia's Digital Startup Ecosystem." *Mekong Strategic Partners and Raintree Cambodia*, 26 April. (<http://geeksincombodia.com/startup-kingdom-a-look-at-cambodias-digital-startup-ecosystem/>).

⁶⁸ World Bank Group. 2020. "Digital Economy in Southeast Asia."

Figure 3: Legal Frameworks in ASEAN Countries for Electronic Transactions, Data Protection/Privacy, and Online Purchases

	Does the Country Have a Legal Framework for Electronic Transactions/E-Signature?	Does the Country Have a Legal Framework for Data Protection/Privacy Online?	Does the Country Have a Legal Framework for Consumer Protection when Purchasing Online?	Does the Country Have a Legal Framework for Cyber-crime Prevention?
Brunei Darussalam	Yes	No	Yes	Yes
Cambodia	Draft	No	Draft	Draft
Indonesia	Yes	Yes	Yes	Yes
Lao PDR	Yes	Yes	Draft	Yes
Malaysia	Yes	Yes	Yes	Yes
Myanmar	Yes	No	Yes	Yes
Philippines	Yes	Yes	Yes	Yes
Singapore	Yes	Yes	Yes	Yes
Thailand	Yes	Yes	Yes	Yes
Vietnam	Yes	Yes	Yes	Yes

Source: World Bank Group⁶⁹
 UNCTAD Cyberlaw Tracker.
http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx

⁶⁹ World Bank Group. 2020. "Digital Economy in Southeast Asia." 82.



To remedy this, the government enacted two new laws on e-commerce regulations, which were the '*Law on Electronic Commerce*' (E-Commerce Law) and the '*Law on Consumer Protection*' (Consumer Protection Law), in November 2019. The former seeks to 'regulate domestic and cross-border e-commerce activities in Cambodia, establish legal certainty for electronic transactions, and enact a number of important protections for consumers'; while the latter 'establishes rules to guarantee the rights of consumers and ensure that businesses conduct commercial competition in Cambodia fairly'.⁷⁰ Although these regulations are key for improving Cambodia's legal environment for economic digitalisation (particularly digital entrepreneurship) in the future, they are too immature as yet for accelerating e-commerce growth in Cambodia. In fact, their implementation only commenced in May 2020, and their intended effects are yet to be evaluated. Furthermore, their substantive provisions still disregard particular fundamentals of e-commerce regulations, despite their compliance with international standards.⁷¹ These problems per se necessitate frequent government oversight of their implementation as well as other remedial measures, but this needs to be done without impeding national e-commerce development and other facets of economic digitalisation.

A closer examination of Cambodia's legal landscape also reveals another concern warranting tactful government resolutions – the proliferation of new platform-based businesses in its digital economy, which spotlights the fact that the scope of existing legislations does not cover new digital business models.⁷² A case in point is the 'sharing economy' – a peer-to-peer platform through which consumers and producers collaborate in the online transactions of assets and services, facilitated by a centralised digital network or a legitimate intermediary process.⁷³

In Cambodia's current digital landscape, there is a growing emergence of sharing-economy industries like 'ride-hailing companies' (i.e. Grab and PassApp)

⁷⁰ Bunthan, Pichrotanak and Jay Cohen. 2020. "What Cambodia's New Law on Electronic Commerce Means for Business." Tilleke & Gibbens, 2 March. (<https://www.tilleke.com/resources/what-cambodias-new-law-electronic-commerce-means-business>).

⁷¹ Bunthan, Pichrotanak and Jay Cohen. 2020. "What Cambodia's New Law on Electronic Commerce Means for Business."

⁷² Livingston, Kevin and Poovenraj Kanagaraj. 2019. "Peer-to-Peer Lodging Culture Takes Root in Cambodia." *Capital Cambodia*, 25 July. (<https://capitalcambodia.com/peer-to-peer-lodging-culture-takes-root-in-cambodia>).

⁷³ Lee, Cassey. 2016. "To Uberize or Not to Uberize? Opportunities and Challenges in Southeast Asia's Sharing Economy." *ISEAS Yusof Ishak Institute's Perspective No.33*. (<https://think-asia.org/handle/11540/9150>).

alongside peer-to-peer accommodation rental services (i.e. Air-BnB).^{74 75} Although they have had numerous positive economic impacts, their operations also pose myriad regulatory challenges. For example, a number of civilian ride-hailing service providers in Cambodia are actually undermining tax regulations and employment registration processes, since the majority are not officially licensed drivers due to ambiguities surrounding their occupational status.⁷⁶ In November 2017, the Ministry of Public Works and Transport seized over 170 unregistered ride-hailing *Tuks Tuks* (Khmer terminology for 'rickshaw cabs') on the grounds that most drivers were operating without valid licenses.⁷⁷ This could lead to normalising tax evasion and rule-breaking on the part of the registered drivers and their parent companies, causing further 'market de-institutionalisation',⁷⁸ and leading away from the goal of full formalisation of the economy – a central engine of economic development. There is thus a need for the government to evoke 'differentiated regulatory responses' to confront such issues while respecting that 'the types of transactions occurring differ substantially in how they affect the real world'.⁷⁹ It is also imperative for the government to tailor existing regulations to effectively govern the newly emerging business models of sharing industries. Similarly, there must be 'fit-for-purposes regulatory structures' that feasibly 'permit the growth of sharing economy segments in a way that also accounts for the needs of all constituencies and is within the laws as written or newly conceived'.⁸⁰ ■

74 Turton, Shaun and Bopha Phorn. 2019. "Grab Takes on Cambodia's PassApp for Ride-Hailing Supremacy." *Nikkei Asian Review*, 9 July 8. (<https://asia.nikkei.com/Business/Startups/Grab-takes-on-Cambodia-s-PassApp-for-ride-hailing-supremacy>).

75 Dunston, Lara. 2015. "Hoteliers Worried by Rise in Peer-to-Peer Rentals." *The Phnom Penh Post*, 22 May. (<https://www.phnompenhpost.com/post-weekend/hoteliers-worried-rise-peer-peer-rentals>).

76 Malhotra, Arvind Malhotra and Marshall Van Alstyne. 2014. "The Dark Side of the Sharing Economy ... and How to Lighten It." *Communications of the ACM* 57, 11: 24–27 (<https://doi.org/10.1145/2668893>).

77 Spiess, Robin and Kali Kotoski. 2017. "Local Ride-Hailing Apps Tripped up by Crackdown on Tuk-Tuks." *The Phnom Penh Post*, 17 November. (<https://www.phnompenhpost.com/business/local-ride-hailing-apps-tripped-crackdown-tuk-tuks>).

78 Beerepoot, Niels and Bart Lambregts. "Competition in Online Job Marketplaces: Towards a Global Labour Market for Outsourcing Services?" *Global Networks* 15, 2: 236–55. (<https://doi.org/10.1111/glob.12051>).

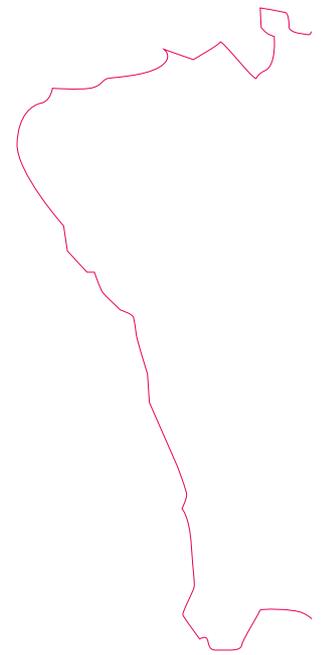
79 Miller, Stephen. 2016. "First Principles for Regulating the Sharing Economy." *Harvard Journal on Legislation* 53, 147: 151. (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2568016).

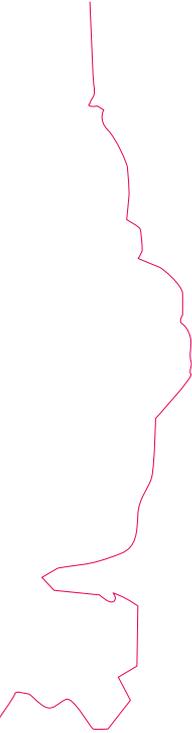
80 Miller, Stephen. 2016. "First Principles for Regulating the Sharing Economy." 153.

CONCLUSION

The central thesis of this paper articulates that the role of the government in empowering Cambodia's digital economy is important for several fundamental reasons. Firstly, the speed with which digital infrastructure is being modernised is still relatively slow due to a series of administrative and governance challenges, most of which concern the institutional rigidities that stymie the responsiveness of essential policy undertakings to matters of priority. Therefore, it is imperative for the government to pursue a 'whole-of-government approach' to digital infrastructure development which will effectively overcome the institutional inertias present in the system today. Secondly, the problem of urban-rural digital disparities also warrants the astute implementation of differentiated policy interventions centred on narrowing the disparities, thereby producing both short and long-term benefits for economic digitalisation. Finally, the legal environment upon which the digital economy can thrive is still maturing, which suggests that regular government supervision is still required for diagnostic and improvement purposes.

It is clear from these findings that the complexities of digital economy development and governance in least-developed countries, particularly in Cambodia, cannot be effectively addressed without prudent government intervention, since its national digital economy is still in its nascent stage of development. Therefore this intervention is needed particularly in structuring the necessary foundations for continued growth of their digital economies until they reach a mature and advanced state conducive for self-governance without intensive government interventions. Aside from these novel academic contributions, these findings are also useful for informing the current and future trajectories of digital economy policies in Cambodia. Going forward, it is then vital for the Cambodian government to work on the following policy suggestions to further augment its digital economy. Firstly, policymakers should continue identifying the critical and subtle barriers to its national digital process (aside from the ones above) emanating from both current and past policies. This can be achieved particularly through the conduct of rigorous and open policy researches which could be jointly commissioned with experts within emerg-





ing research institutions and think tanks such as the Centre for Inclusive Digital Economy of the Asian Vision Institute (AVI), Future Forum, and Konrad-Adenauer-Stiftung (KAS). Doing so will enable the government to better harness the ‘collective intelligence’ of the public to advance central digital transformation agendas more feasibly and effectively. Additionally, the existing reforms to stimulate public sector innovation, particularly in areas pertaining to the promotion of e-governance and the ‘government as a platform’ initiative, should be further implemented and emboldened. This will enhance the efficiency of public institutions in actualising the digital transformation agendas within the context of the Cambodia National Action Plan for Public Administration Reform (2019–2030). Finally, policymakers should cement their commitments to implementing a whole-of-society approach to accelerating digital transformation within existing policy frameworks, which will allow for greater contributions from various actors within the public and private spheres, while remaining open to learning and emulating the successful lessons and best practices of other nations, both within and beyond Southeast Asia.

On the normative front, policymakers should firmly acknowledge that while government intervention is indeed paramount, the political context within which it is carried out can also have a bearing on its overall effectiveness in digital economy development, among other things. As Cambodia’s current political climate is still undergoing episodic disruptions to its democratic stability, there has been speculation that perpetual government involvement in the digital sphere can give rise to ‘Orwellian political forces’ ranging from networked illiberalism and surveillance culture to platform politicking. This could result in ‘digital authoritarianism’ inhibiting the already erratic democratic transition. The lack of attention to these perils could characterise the digital economy as a smokescreen for covering (or even legitimising) authoritarian practices within the virtual domain rather than as a growth enabler. Therefore, further research into this area should investigate the possibility of these developments and offer the amicable solutions to avert them.



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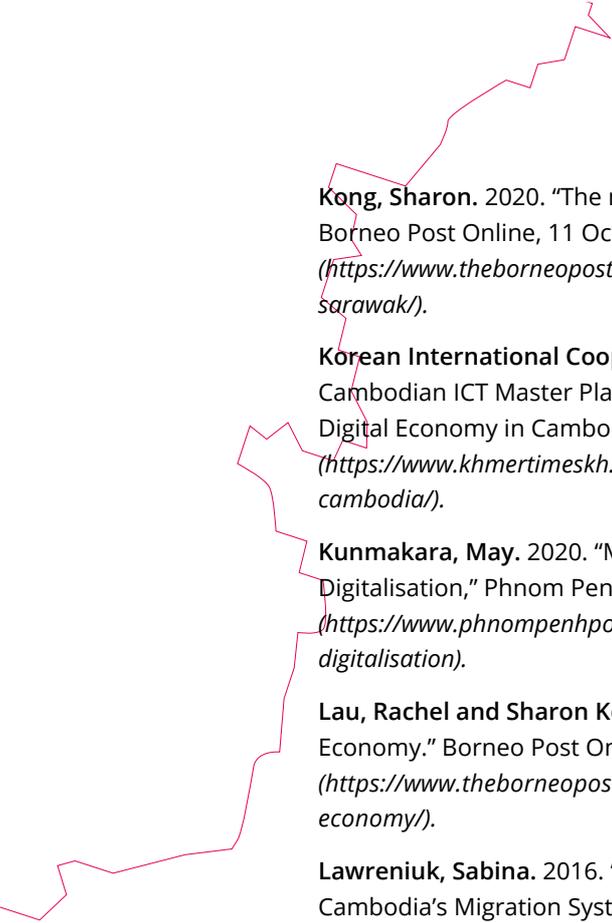
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