

Empowering Online Public Service in Asia: The Digital Frontier

Edited by

Lurong Chen

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Cover Art by Artmosphere

Book Design by Artmosphere

National Library of Indonesia Cataloguing-in-Publication Data

ISBN no. 978-602-5460-55-5

Foreword

The global economic landscape is undergoing rapid evolution, demanding swift adaptation from ASEAN to remain relevant and effective amidst challenging developments and trends. Emphasising the urgency to address digital poverty and inequality, there is a compelling need for an accelerated digital transformation, incorporating the adoption of new technologies and the new mindset of development. The COVID-19 pandemic has notably accelerated the shift towards increased utilisation of online facilities, spanning e-commerce, e-healthcare, remote education, and access to public services facilitated by digital government.

The impact of digital government extends far beyond, significantly influencing the pace and nature of digital transformation. The digitisation of public services not only saves costs but also enhances government operations' efficiency, promoting transparency and improving the convenience and quality of services for citizens and businesses. This transformative process can contribute to more inclusive and democratic governance, a crucial aspect for the Asian region grappling with socio-economic disparities and democratic challenges. Furthermore, by enhancing the efficiency of public administration and services, digital government can heighten a nation's appeal to foreign investors and stimulate economic growth.

In ASEAN and East Asia, the digital transformation of governments must be integral to national digitalisation strategies. This entails more than mere digital adoption in the public sector; it aims to foster a digital-driven, people-centered public service system in the long run. To maximise the positive impacts and mitigate potential risks of digital government, meticulous planning is essential, grounded in a profound understanding of the diverse challenges and opportunities specific to the Asian context. The current volume, edited by Dr Lurong Chen, ERIA Senior Economist, and Prof. Fukunari Kimura, ERIA Chief Economist, presents the principal findings from ERIA's recent study on Asian digital transformation. Offering insights into Asian countries' endeavours to unlock the potential of digital government, it sheds light on policy instruments aimed at enhancing the coverage and quality of region-wide online public services.



Tetsuya Watanabe

The President of ERIA

Acknowledgements

Digital government serves not only as a pivotal element in the realm of digital transformation but also as a decisive factor influencing its trajectory. Within the context of ASEAN, digital government should be regarded as an essential facet of digital connectivity. From an economic perspective, the implementation of digital government fosters a development-friendly environment conducive to digital innovation and entrepreneurship. Furthermore, it facilitates the delivery of government services with increased efficiency, transparency, and accessibility, particularly to those residing in remote or underserved areas. This, in turn, promotes inclusive development within the rapidly growing yet diverse digital landscape of the ASEAN region. Additionally, the digitisation of public services can enhance policy coordination amongst member states and streamline the harmonisation of regulations and standards across the region.

Research on digital government plays a crucial role in providing policymakers with a comprehensive understanding of the implications of technological changes. It sheds light on how to effectively integrate new technologies into government functions tailored to address specific needs and challenges.

This book presents the outcomes of the Phase One study of the ERIA research project on digital government. It stands as a collaborative achievement, and we extend our sincere gratitude to all contributors for their unwavering enthusiasm and engagement in the project. Special thanks are owed to Tetsuya Watanabe, President of ERIA; Koji Hachiyama, Chief Operating Officer of ERIA; and Shujiro Urata, Senior Research Advisor to the President of ERIA, for their invaluable advice and generous support throughout the research project and the compilation of this book.

Yuanita Suhud and Tika Aulia Dewi provided exceptional assistance to the research project, and their contributions are highly appreciated. We also express our thanks to Stefan Wesiak, Fadriani Trianingsih, and Eunike Septiana, who edited and provided valuable comments on the manuscript. Finally, we gratefully acknowledge the diverse forms of support from our colleagues, including Toru Furuichi, Yoichiro Hatakeyama, Irene Juitania, Sumie Hoshide, Adisti Aulia, Maria Anastasia, and many others.

Lurong Chen and Fukunari Kimura

ERIA (Economic Research Institute for ASEAN and East Asia)

Editors Biography

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He obtained his PhD Degree (International Economics) in Graduate Institute, Geneva. His research interests include digital economy, Asian regionalism, global value chains, trade in services, and IPRs. He is also working on FTAs, Chinese economy, and RCEP negotiation. Before joining ERIA, Dr Chen was a Research Fellow at the United Nations University.

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He was born in Tokyo in 1958. He received his Bachelor of Laws from the Faculty of Law, University of Tokyo in 1982. He then received Master of Science and PhD titles from the Department of Economics, University of Wisconsin-Madison in 1990 and 1991, respectively. He worked for the Department of Economics, State University of New York at Albany as Assistant Professor in 1991-1994, and in the Faculty of Economics of Keio University as Associate Professor in 1994-2000. In particular, he has recently been active in writing academic/semi-academic books and articles on international production networks and economic integration in East Asia.

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List of Abbreviations and Acronyms

ACE	ASEAN Centre for Energy
AEO	ASEAN Energy Outlook
AHEAD	Advanced Hydrogen Energy Chain Association for Technology Development
AMS	ASEAN Member States
APAEC	ASEAN Plan of Action for Energy Cooperation
APS	Announced Pledges Scenario
ASEAN	Association of Southeast Asian Nation
ATR	Autothermal Reforming
ATS	AMS Targets Scenario
BAU	Business-As-Usual
BECCS	Bioenergy with Carbon Capture and Storage
BEV	Battery Electric Vehicle
BF-BOF	Blast Furnace–Basic Oxygen Furnace
CAGR	Cumulative Annual Growth Rate
CCS	Carbon Capture and Storage
CCUS	Carbon Capture Utilisation and Storage
CN	Carbon Neutral
CO₂	Carbon Dioxide
COP	Conference of the Parties
COVID	Novel Coronavirus Disease
DAC	Direct Air Capture
DACCS	Direct Air Capture with Carbon Capture and Storage

DNV	Det Norske Veritas
DRI	Direct Reduced Iron
DRI-EAF	Direct Reduced Iron-Electric Arc Furnace
EE	Energy Efficiency
EJ	Exajoule
ERIA	Economic Research Institute for ASEAN and East Asia
EUR	Euro
EV	Electric Vehicle
FCEV	Fuel Cell Electric Vehicle
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GW	Gigawatt
HBI	Hot Briquetted Iron
HDF	Hydrogene De France
IEA	International Energy Agency
IEEJ	Institute of Energy Economics Japan
IESR	Institute for Essential Services Reform
IISIA	Indonesian Iron and Steel Industry Association
INDC	Intended Nationally Determined Contribution
IRENA	International Renewable Energy Agency
ISOM	Isomerisation
JETP	Just Energy Transition Partnership
KBPD	Thousand Barrels per Day
KTPA	Kilo Tons per Annum

Lao PDR	Lao People's Democratic Republic
LCOE	Levelized Cost of Electricity
LED	Light Emitting Diode
LNG	Liquefied Natural Gas
LS	Likely Scenario
MEA	Mono-ethanolamine
MEMR	Ministry of Energy and Mineral Resources
METI	Ministry of Economy, Trade and Industry
MOU	Memorandum of Understanding
MT	Million Tons
MTBE	Methyl Tertiary Butyl Ether
MTPA	Million Tons per Annum
MW	Megawatt
NDC	Nationally Determined Contribution
NZE	Net-Zero Emissions
OGJ	Oil and Gas Journal
PEM	Proton Exchange Membrane
PLN	PT Perusahaan Listrik Negara
PNOC	Philippine National Oil Company
PT	Perseroan Terbatas
PTT	Petroleum Authority of Thailand
PV	Photovoltaic
RE	Renewable Energy

SDG	Sustainable Development Goals
SDS	Sustainable Development Scenario
SEA	Southeast Asia
SEAISI	Southeast Asia Iron & Steel Institute
SMR	Steam Methane Reforming
STEPS	Stated Policies Scenario
TPA	Tons per Annum
TWh	Terawatt Hour
US	United States
USD	United States Dollar
USGS	United States Geological Survey
VRE	Variable Renewable Energy
WEO	World Energy Outlook